

## Chapter 2. Management Actions for the Proposed RMP

### Introduction

This chapter describes proposed management actions under the Preferred Alternative for land and resources managed by the Bureau of Land Management's (BLM's) Eagle Lake Field Office (ELFO). The Proposed Resource Management Plan (PRMP) / Final Environmental Impact Statement (FEIS) has been developed from the Preferred Alternative analyzed in the Draft Resource Management Plan (RMP) and in some cases, revised according to public comments received on the Draft RMP. The PRMP represents a reasonable range of alternatives to managing land and activities consistent with law, regulation, and policy. Development of the PRMP/FEIS was guided by the National Environmental Policy Act (NEPA), the Federal Land Policy Management Act (FLPMA) (1976, as amended), regulations, policy, and input from the public through public and agency scoping.

The PRMP/FEIS includes specific actions and action plans to be followed so as to make necessary changes in resource management within the planning area. However, not all issues can be resolved in a PRMP; some will require that subsequent actions be taken to determine exactly how to reach desired conditions or to achieve a desired result.

Chapter 2 incorporates the Preferred Alternative from the Draft RMP into the Proposed Action for the PRMP/FEIS. The PRMP includes a detailed description of the management goals, objectives, allocations and allowable uses, and guidelines for the Proposed Action. The actions in this PRMP/FEIS are designed to provide general management guidance in most cases. Specific projects for a given area or resource will be detailed in future activity plans or site-specific proposals developed as part of interdisciplinary project planning or other means. These plans and processes will address more precisely how a particular area or resource is to be managed, and additional NEPA analysis and documentation would be conducted as needed.

### Alternatives Considered

BLM developed management alternatives for the ELFO Draft RMP using input and comments from public scoping meetings, written comments, as well as ideas from staffs of BLM and other cooperating agency partners. NEPA regulations and BLM resource management planning regulations require the formulation of a reasonable range of alternatives that seek to address identified planning issues and management concerns. Each alternative must be evaluated to ensure that it would be consistent with resource goals and objectives, current laws, regulations, and policy.

The Eagle Lake Draft RMP/Environmental Impact Statement (EIS) considered five alternatives. The alternatives are not re-printed here, as they have not changed. They are, however, summarized in the Alternatives Summary Table at the end of this chapter. The basic goal of developing alternatives was to explore the range of use options, protection options, and management tools that would achieve a balance between protection of the planning area's natural character, and a variety of resource uses and management issues. Alternatives were evaluated in the Draft RMP/EIS for potential impacts to resources that might occur as a result of implementing management decisions.

The five management alternatives that were developed for the Draft Eagle Lake RMP include:

**No Action Alternative** (required by NEPA): Retains current management through guidance and direction from current policies, and existing management plans.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

**Alternative 1. Resource / Economic Development:** Emphasizes commodity production from BLM resources in accordance with local economies and land use plans from local communities and counties.

**Alternative 2. Ecosystem Restoration or Protection:** Maximizes efforts to maintain, restore, or improve components of the ecosystem using natural ecosystem processes.

**Alternative 3. Traditional or Historical Uses:** Emphasizes traditional community uses of resources and/or emphasizes historical uses.

**Preferred Alternative:** The Preferred Alternative was “crafted” from all of the other alternatives and combines management actions from all four of the above listed alternatives. This alternative has been designed to best meet the purpose and need of the plan as described in Chapter 1 and best meet desired future conditions, goals, and objectives of individual and combined resources and resource uses.

Chapter 2 provides a detailed description of proposed management actions for the Preferred Alternative for 23 resource subjects. The desired future conditions, goals, objectives, and management actions for each major resource area are discussed in detail. The Alternatives Summary Table, at the end of this chapter, contains a summary of the five alternatives by resource subject, with emphasis on the key features described below and those aspects that differentiate the alternatives from one another.

### Summary of Environmental Consequences

The Impacts Summary Table, at the end of this chapter, contains a comparative summary of the key environmental consequences for each of the five alternatives. A detailed description of environmental impacts resulting from implementation of the Preferred Alternative can be found in Chapter 4, Environmental Consequences.

### Environmentally Preferred Alternative

The Environmentally Preferred Alternative is defined as “the alternative that would promote the national environmental policy as expressed in §101 of the National Environmental Policy Act.” Section 101 states, “...it is the continuing responsibility of the federal government to...

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Ensure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.
- Preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.
- Achieve a balance between population and resource use that would permit high standards of living and a wide sharing of life’s amenities.
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.”

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

Compared to the other alternatives analyzed, Alternative 2 and the Preferred Alternative best meet the national environmental goals identified above. Alternative 2 provides the highest level of protection of natural and cultural resources, however it does not allow for a wide range of beneficial uses of the environment.

The Preferred Alternative would enhance the ability of BLM to achieve the purpose and need of this document, as outlined in Chapter 1, as well as meet desired future conditions, goals and objectives of specific resources as outlined in Chapter 2. Alternatives No Action, 1, and 3 do not contain the degree of management emphasis required to protect benchmark native vegetative communities and restore degraded sagebrush steppe habitat found in the Preferred Alternative.

Portions of the field office area that are currently in a degraded condition can only be improved with the scope of active restoration efforts provided for in the Preferred Alternative.

The Preferred Alternative would result in overall minor to moderate adverse impacts to resources, and these impacts would continue to be mitigated. Proposed management actions would result in moderate to major beneficial impacts to native vegetation communities from restoration efforts, and the use of prescribed fire to remove invasive juniper. Improvements to riparian areas, water bodies, and other special habitats would improve soil and water resources, and wildlife habitat. The designation of eight areas of critical environmental concern (ACECs), one wild and scenic river (WSR), and an increased emphasis on cultural resource protection and management would have beneficial impacts to these important and unique resources.

### **Adaptive Management**

In developing the Eagle Lake PRMP/FEIS, BLM used the best science currently available, collaborated with other government agencies, and involved the public extensively. However, BLM's knowledge of resource conditions continues to evolve as local environmental conditions change, as new management techniques are developed and used, and as advances in science and technology are made available. Therefore, it is inevitable that in the future, some of the management direction in this PRMP/FEIS will be found to be erroneous, or inadequate, and need to be revised. To address this, implementation of the Eagle Lake PRMP/FEIS will use an adaptive management approach to modify management actions and to incorporate new knowledge into our resource management decisions.

The complex interrelationships between physical, biological, and social components of an ecosystem and how they will react to land management practices are often not fully understood when a land use plan is developed. To be successful, plans must have the flexibility to adapt and respond to new knowledge or conditions. Adaptive management involves planning, implementation, monitoring, evaluating, and incorporating new knowledge into management approaches. It is a procedure in which decisions are made as part of an on-going process. This process builds on current knowledge, observation, monitoring data and information, and learning from experiences, which are then used to modify management decisions and/or policies.

BLM would utilize the adaptive management process for making modifications to management decisions in the PRMP/FEIS, in the following situations: 1) a management action is no longer appropriate for the resource conditions that were assumed during planning; 2) an event substantially changes the character of the landscape; 3) new information attained through monitoring indicates that planned objectives are not being met; or 4) advances in research and technology indicate a need for a change. Changes to management direction would be made consistent with requirements of FLPMA, NEPA, and other BLM policies and regulations.

## **2.1 Air Quality**

The Clean Air Act requires federal agencies to comply with federal, state, and local air pollution standards. The Clean Air Act also requires each state to develop an implementation plan ensuring that national ambient air quality standards are attained and maintained for criteria pollutants.

National standards have been established for six pollutants described in the Clean Air Act. Of these six, only one – particulate matter – is substantially affected by natural resource management activities. Most particulate matter produced by wildland fire is less than 10 micrometers in diameter; this “PM<sub>10</sub>” is the size class of particular concern for human health. Because wildfire (and smoke) is an integral part of forest and rangeland ecosystems, PM<sub>10</sub> does not appreciably affect them.

Therefore, land managers and the public must make well-considered choices regarding particulate emissions from prescribed fires and wildland fire use versus emissions from uncontrolled wildfires. Land managers have little control over where, when, and how much smoke is produced during wildfires. However, with prescribed fire, smoke levels can be managed.

### **2.1.1 Desired Future Condition**

Air quality in the ELFO management area would be maintained at or below the accepted threshold levels as listed in national air quality standards for PM<sub>10</sub> and the five other criteria pollutants enumerated in the Clean Air Act.

### **2.1.2 Goal**

Achieve and maintain federal, state, and local air pollution standards with respect to particulate matter (PM<sub>10</sub>) throughout the management area.

### **2.1.3 Objectives**

The ELFO would follow the direction and fulfill the requirements of the Northeast Air Alliance (covering Butte, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Tehama Air Pollution Control Districts) to achieve acceptable air-quality standards while implementing fuel-reduction projects, prescribed fires, and wildland fire use projects.

### **2.1.4 Legislative, Regulatory, and Policy Direction**

- The Clean Air Act (1963), as amended (42 U.S.C. 7401 et seq.)
- California Code of Regulations, Title 17, Section 80101 and Title 14, 1561, 1
- Regulations, memorandums of understanding (MOUs), etc. with applicable counties

### **2.1.5 Proposed Management Actions**

Prescribed fire projects and wildland fire use would be timed and/or managed in such a manner that federal (Clean Air Act), state, and local standards for particulate matter (PM<sub>10</sub>) are not exceeded. Wildland fire use (10,399 acres total) and prescribed fire (4,500 acres per year) would be employed to achieve maximum natural resource benefits. Prescribed burn plans and smoke management plans would continue to be written and implemented for all prescribed fires. These plans would include information and techniques used to reduce or alter smoke emission levels.

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

Information (including resource objectives, acres to be burned, fuel types, fuel moisture, fuel loading, fuel continuity, topography, location of population centers and Class 1 air sheds) would assist fire managers in determining what weather conditions, firing methods, and mop-up standards should be used to minimize impacts.

## **2.2 Cultural Resources and Paleontology**

Cultural resources, including historical or prehistoric archaeological sites and artifacts, and traditional gathering areas, are important to people throughout the world. Such sites connect us with those who came before, making their lives real and helping us to understand and identify with people of different cultures and times, and hopefully, providing insights into our shared humanity. BLM's cultural resource program manages prehistoric, historic, ethnographic, and paleontological resources on public lands and ensures their protection. Native Americans are consulted to ensure that important traditional sites and objects are preserved and protected.

### **2.2.1 Desired Future Conditions**

Cultural and paleontological resources will be protected and preserved to ensure present and future availability for appropriate uses (in compliance with applicable laws, regulations, and executive orders). Cultural resource sites will be protected and stabilized (conservation). Some sites will be put to public uses (interpretive/educational), scientific uses (research), or Native American traditional uses (traditional cultural properties [TCPs]). An increase in site stewardship by ELFO resource managers, along with the education and participation of the public and Native American tribes, will enhance protection efforts. Other sites may be released from management if they do not meet National Register or Historic Places (NRHP) eligibility criteria.

### **2.2.2 Goals**

- Preserve and protect significant cultural and paleontological resources and ensure that they are available for appropriate uses by present and future generations by managing activities in a way that will protect cultural resources and provide benefits directed towards public education, research, public use, conservation for future use, and interpretation.
- Identify priority areas for future inventory in order to reduce imminent threats from natural or human-caused deterioration or potential conflicts with other resource uses.
- Encourage public appreciation and respect for cultural sites and artifacts, as well as greater sensitivity to Native American issues. Encourage similar attitudes toward paleontological sites.
- Accommodate Native American use of culturally significant resources and properties in consultation with tribal groups. Areas that qualify would be nominated as TCPs.

### **2.2.3 Objectives**

Evaluate for future use the following field office cultural sites for (1) NRHP quality and (2) Cultural Resource Considerations in Resource Management Plans, under BLM Information Bulletin No. 2002-101 (5/29/2002):

- cultural resource sites found to be noticeably deteriorating due to significant impacts (e.g., from natural environmental factors, vandalism, or potential or ongoing multiple use activities),
- sites expected to experience potential significant impacts in the future, and
- all other known sites.

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

Locate, evaluate, and classify paleontological resources and protect them when appropriate. Manage paleontological resources for their scientific, educational, and recreational values. Ensure that significant fossils are not inadvertently damaged, destroyed, or removed from public land as a result of multiple use activities.

Seek to reduce imminent threats to cultural and paleontological resources and resolve potential conflicts, from natural or human-caused deterioration, or from other resource uses by identifying priority geographic areas for new field inventory, based upon a probability for unrecorded significant resources.

### **2.2.4 Legislative, Regulatory, and Policy Direction**

- National Environmental Policy Act (1969)
- Federal Land Policy Management Act, Sec. 103c, 201 a, and 202 c (1976)
- National Historic Preservation Act (NHPA), Sec. 110, 106 (1966)
- Archaeological Resources Preservation Act (ARPA), Sec. 14a (1979)
- Historic Sites Act (1935)
- Antiquities Act (1906)
- Historical and Archaeological Data Preservation Act (1974)
- Native American Graves Protection and Repatriation Act (NAGPRA) (1990)
- Executive Order 13007 - Indian Sacred Sites (May, 1996)
- BLM–California State Historic Preservation Office (SHPO) Protocol Agreement (1998)
- BLM Information Bulletin no. 2002-101 (May, 2002)
- American Indian Religious Freedom Act (1978)
- Paleontological Resources Protection Act (2005)

For all management actions on public lands and federally funded private land projects that are permitted or assisted, comply with Sections 106 and 110 of the NHPA regulations and other agreements that conform to the intent of NHPA, such as the following:

- protocols between BLM and state historic preservation officers,
- the ARPA ,and
- Native American guidelines and laws such as the Native American Religious Freedom Act.

### **2.2.5 Proposed Management Actions**

As specified in BLM Information Bulletin No. 2002-101, evaluate all currently recognized archaeological sites, as well all sites found in the future, for placement in one of six management categories (Table 2.2-1 below).

**Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

**Table 2.2-1 Cultural Resource Use Allocation Categories<sup>1/</sup>**

<b>Category</b>	<b>Allowable Uses</b>	<b>Management Actions</b>	<b>Desired Future Condition</b>
a. Scientific Use	Research	Permit appropriate research, including data recovery	Preserved until research potential is realized
b. Conservation for future use	Research or public interpretation	Propose protective measures/designations	Preserved until conditions for use are met
c. Traditional Use	Native American and other social and/or cultural group activities	Consult with appropriate tribe and/or group to determine limitations	Long-term preservation
d. Public Use	Public interpretation and education	Determine limitations and permitted uses	Long-term preservation, on-site interpretation
e. Experimental Use	Research and interpretation, when appropriate	Determine nature of experiment	Protected until used
f. Discharged from Management	All uses allowed	Remove from protective measures	No use after recordation; not preserved

<sup>1/</sup>Source: U.S. Department of the Interior (USDI) Information Bulletin No. 2002-101, "Cultural Resource Considerations in Resource Management Plans"

Inventory culturally sensitive areas, as identified by King et al. (2004) (such as Upper Dry Valley, Snowstorm, and Deep Cut) (see Table 2.2-2). A cultural resource sensitivity model would be used to structure future inventory needs by identifying and prioritizing vulnerable areas. This model was developed in the Class I Cultural Resource Overview compiled for Northeastern California (King et al. 2004). In short, the model incorporates various weights of evidence, including slope and distance to water to predict the occurrence of cultural resources. This enables archaeologists to predict the sensitivity of a given area by the number of sites likely to occur there.

**Table 2.2-2 Areas with Potentially Significant Cultural Sites Proposed for Inventory**

<b>Site Name or Area</b>	<b>Size (acres)</b>	<b>Location by Watershed</b>
Snowstorm	7,000	Horse Lake Watershed
Deep Cut	2,560	Horse Lake Watershed
Upper Smoke Creek	5,100	Smoke Creek Desert Watershed
Balls Canyon-Secret Creek	440	Horse Lake Watershed
Saddle Rock	4,440	Horse Lake Watershed
Upper Dry Valley	8,320	Smoke Creek Desert Watershed
Eagle Lake Basin	3,000	Eagle Lake Basin Watershed
Parsnip Spring/Buffalo Hills	10,000	Smoke Creek Desert Watershed
Dry Valley and Twin Peak Wilderness Study Areas	20,000	Smoke Creek Desert Watershed
Land Health Assessment Sites	280,000	Various

Manage 17 cultural resource management areas (CRMAs) as listed in Table 2.2-3 and shown on Map CR-1. Designate North Dry Valley (10,156 acres) and Buffalo Creek Canyons (36,515 acres) as cultural ACECs to preserve and protect unique resources within these areas, including the Buffalo Hills Toll Road (see Chapter 2.12 ACECs).

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

Cultural resource management plans would be developed for culturally sensitive areas unless included in other integrated activity plans. Such plans would include protective measures, Native American and SHPO consultation, and regulatory compliance. These plans would also include but not be limited to developing a site monitoring system; identifying sites in need of stabilization, restoration, and protective measures (e.g., fences, surveillance equipment); developing research designs for selected sites/areas; designating sites/areas for interpretive development; identifying areas for cultural inventory where federal undertakings are expected to occur; and developing specific mitigation measures. The plan would designate sites, districts, landmarks, and landscapes that would be nominated for inclusion on the NRHP.

Use data from the Upland Health Project, Class I Overview (King et al., 2004) project work, and other types of surveys to locate areas with a high potential to contain sites eligible for the NRHP. These sites may need to be further inventoried to determine the locations, numbers, types, and conditions of cultural resources. Existing areas and sites may need intensive management to protect, stabilize, and rehabilitate the existing site matrix.

Recognize the area's cultural resources as a part of the ecosystem and manage to highlight the holistic relationship between humans and the environment.

Manage TCPs and areas of special interest for continued use. Protect them from conflicting resource use through measures which could include exclosures and reduced grazing. As a part of any action, consult with Native Americans to determine concerns and potential TCPs. Continue to implement cooperative agreements with Native Americans and protect four Native American special interest areas from adverse impacts.

Monitor 30 cultural sites on a yearly basis as a part of the Section 110 program. Inventory 640 acres on a yearly basis as part of the Section 110 program. Use land health standards to evaluate site conditions. Where possible, manage by ecosystem, site type, watershed, or cultural or natural landscape. Once categorical use has been assigned to specific cultural resources, those sites that are assigned a categorical use of a. through e (as defined in Table 2.2-1) that are noticeably deteriorating due to significant impacts will be prioritized for NRHP evaluation.

Protect cultural sites that are determined to be eligible for inclusion to the NRHP through recommended withdrawals, stipulations on leases and permits, exclosure, and/or other similar measures which are developed and recommended by an appropriately staffed interdisciplinary team.

Protect burial sites, associated burial goods, and sacred items in accordance with the NAGPRA and the ARPA.

Maintain current cultural resource inventory data in geographic information system (GIS) format. This would include identification of priority areas for future inventory, based on a high probability of unrecorded, significant sites. Field Office Managers and staff shall support BLM and SHPO efforts to complete and maintain automated cultural resource databases and GIS capability. Strategies will be continually refined for appropriate consideration of cultural resources in un-surveyed areas, including categorizing geographic areas on the basis of sensitivity and as high/medium/low priority for future cultural resource inventory.

Consult with Native American Tribes for the purpose of identifying areas that are in need of special management or protection such as traditional gathering locations, areas of religious significance that may include, but not be limited to, burials, rock art, traditional use areas, religiously active areas, and sacred sites. Proposed projects or actions affecting a site would be mitigated or modified to avoid the site, area,

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

or time-of-use issues – or eliminated altogether. Religious sites and traditional cultural properties would be managed for use by Native Americans and retained in federal ownership. Traditional harvesting/gathering areas in poor ecological condition would be managed to improve sustainable harvest yield levels through management actions such as prescribed burns, changes in grazing regimes, or other approaches recommended by an appropriately staffed interdisciplinary team.

Pursue appropriate NRHP designation, including but not limited to currently eligible sites under current policy and guidance.

Pro-actively reduce hazardous fuels or mitigate the potential hazard around archaeological and cultural sites that are susceptible to destruction by wild fire from prescribed fire activities.

Increase site stewardship to enhance protection efforts, along with the education and participation of the public and Native American tribes.

Require a permit for the collection of vertebrate fossils; permits would be issued to qualified individuals. Vertebrate fossils include bones, teeth, eggs, and other body parts of animals with backbones such as dinosaurs, fish, turtles, and mammals. Vertebrate fossils also include trace fossils, such as footprints, burrows, and dung. Invertebrate fossils include impressions of the soft or hard parts, the mineralized remains of hard parts, seeds or pollens, and other microfossils.

Fossils collected under a permit remain the property of the federal government and must be placed in a suitable repository (such as a museum or university) identified at the time of permit issuance.

Provide for legitimate field research of cultural and paleontological sites by qualified scientists and institutions.

Implement regular law enforcement patrols, as feasible, to monitor and protect known cultural sites and unauthorized use of paleontological material.

Allow for reconstruction, stabilization, maintenance, and interpretation of selected cultural and paleontological sites for public enjoyment and education.

Work with local communities, interest groups, individuals, and other agencies to enhance the public's understanding and enjoyment of cultural and paleontological resources.

**Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

**Table 2.2-3** Proposed Management Actions for Cultural Resources

<b>Site Name, Project Type, and Designation</b>	<b>Potential Management Action(s)</b>	<b>Size (acres)</b>	<b>Watershed/Resource Type</b>
Eagle Lake CRMA/ ACEC/Rehabilitation	Maintenance, inventory, interpretation, educational, buffer	6,498	Eagle Lake Basin Watershed (Prehistoric/Historic)
Belfast CRMA/Rehabilitation	Maintenance, inventory, interpretation, educational, buffer	3,840	Horse Lake Watershed (Prehistoric/Historic)
Snowstorm CRMA/Fire rehabilitation	Maintenance, inventory	7,000	Horse Lake Watershed (Prehistoric/Historic)
Tupi t'waba CRMA	Maintenance	360	Susan River/Honey Lake Watershed (Ethnographic)
Deep Cut CRMA/ Rehabilitation	Maintenance, re-inventory, fencing	2,560	Horse Lake Watershed (Prehistoric/Historic)
Upper Smoke Creek Complex CRMA/ Rehabilitation	Maintenance, re-inventory, interpretation, educational, buffer	5,120	Horse Lake Watershed (Prehistoric/Historic)
Dry Valley Complex CRMA/ ACEC/Rehabilitation	Re-inventory, interpretation	8,320	Smoke Creek Desert Watershed (Prehistoric/Historic)
Little Mud Flat CRMA/ Rehabilitation	Inventory	2,560	Horse Lake Watershed (Prehistoric/Historic)
Balls Canyon-Complex CRMA/Rehabilitation	Inventory, fence, buffer	440	Horse Lake Watershed (Prehistoric)
Buckhorn CRMA/ Rehabilitation	Inventory	3,000	Horse Lake Watershed (Prehistoric)
Dodge Reservoir CRMA/ Rehabilitation	Inventory	2,560	Horse Lake Watershed (Prehistoric)
SOB CRMA/Rehabilitation	Inventory	2,500	Smoke Creek Desert Watershed (Prehistoric)
Pete's Valley CRMA/ Rehabilitation	Inventory	4,480	Horse Lake Watershed (Prehistoric)
Dairy Spring CRMA/ Rehabilitation	Inventory	120	Willow Creek, Watershed (Prehistoric)
Smoke Creek Desert Complex CRMA/Fire Rehabilitation	Maintenance, re-inventory, interpretation (includes Dryden, No-Name, and Whithugh Caves)	2,000	Smoke Creek Desert Watershed (Prehistoric)
Saddle Rock CRMA/ Rehabilitation	Inventory, fence, buffer	4,440	Horse Lake Watershed (Prehistoric/Historic)
Buffalo Hills Complex CRMA	Inventory, interpretation	5,000	Smoke Creek Desert Watershed (Historic)
<b>Total</b>		<b>60,798</b>	

## 2.3 Energy and Minerals

Energy and mineral resources are managed under four program areas: leasable minerals (e.g., oil, gas, and geothermal energy), locatable minerals (e.g., gold, silver, and mercury), saleable minerals (e.g., gravel, sand, and decorative rock), and renewable energy (wind energy, solar, biomass). The current potential for energy (oil and gas) and locatable minerals development is very low in the field office area (John Snow, Nevada Division of Minerals, oral communication), as described in the *Reasonably Foreseeable Development Scenario*, Appendix D.

Potential for commercially viable oil and gas deposits is low throughout the management area. Existing oil and gas leases in the Honey Lake Valley and Ravendale areas have not been sufficiently promising to spur development. Further interest in oil and gas leasing is not expected unless technological advances reduce the cost and financial risk of exploring beneath the volcanic overlay.

However, geothermal sources have generated interest at least at the preliminary discussion level. Geothermal energy is currently harnessed by Honey Lake Power in the Wendell-Amedee Known Geothermal Resource Area, and a second facility is proposed for this area on private lands.

The ELFO management area's known locatable mineral reserves contain mercury, gold, silver, or zeolites. Gold mining in the Hayden Hill District is expected to remain active, with sporadic exploration probable, depending on the price of gold. This district is partially within the Alturas Field Office management area. The Diamond Mountain District and Crescent Mills contain two placer claims and two lode claims (minor gold-vein mineralization). Although claims will be maintained, active mining is likely to be very low or nonexistent. Other locatable mineral activity is also expected to be minor and sporadic, and focused on existing claims.

Sand, gravel, and decorative rock are the primary saleable minerals in the ELFO management area. Permits for mining of mineral materials are free under present management and sale of aggregates is encouraged to meet local public demand.

The demand for wind energy resources on public lands is expected to increase. Current interest in wind energy is focused on the various mountain peaks within the field office area.

### 2.3.1 Desired Future Condition

Exploration and development of energy and mineral resources would be encouraged to the extent that is compatible with the preservation and management of other resources.

### 2.3.2 Legislative, Regulatory, and Policy Direction

- The General Mining Law (1872)
- The Mineral Leasing Act of 1920, as amended
- The Minerals Material Act (1947)
- The Geothermal Steam Act of 1970, as amended
- The Mining and Mineral Policy Act (1970)
- Surface Mining And Reclamation Act of 1975
- The BLM Mineral Policy (1984)
- The National Energy Policy (2001)

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Section 102 of the Federal Land Policy and Management Act (Executive Order 13212) (Amended 2003)
- BLM Wind Energy Policy (IM2003-020)
- Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States (2005)

### 2.3.3 Leasable Minerals

#### 2.3.3.1 Goal

Exploration and development of leasable energy and mineral resources would be encouraged to the extent this is compatible with the preservation and management of other resources.

#### 2.3.3.2 Objectives

Where there is potential for leasable mineral development, standard leasing terms, conditions, and stipulations would be applied to protect or reclaim area resources that would, or could, be affected by leasable mineral development. Apply seasonal restrictions, special stipulations, or no surface occupancy requirements, where necessary to protect ecosystems—particularly regarding water quality and supply, as well as plants and wildlife.

#### 2.3.3.3 Definitions

The following definitions are provided to clarify standards and restrictions that apply to energy and mineral development:

**Standard Leasing Terms:** These are the normal conditions that apply to leases under Section 6 of BLM Form 3110-11, “Offer to Lease and Lease for Oil and Gas,” and BLM Form 3200-4, “Offer to Lease and Lease for Geothermal Resources.” They contain all conditions that apply to leases when additional measures are not necessary to protect sensitive resources. Geophysical operations are also subject to standard leasing terms, except for certain activities that impose little or no surface disturbance (such as gravity and magnetic surveys).

**Seasonal restrictions:** These stipulations are applied where sensitive resources require additional protection at certain times of the year—beyond that provided by controlled surface use or standard leasing terms. They are usually imposed to protect wildlife (e.g., big-game winter range).

**No Surface Occupancy (NSO):** This stipulation is applied where resources (e.g., sensitive plants and wildlife or areas of high scenic value) require year-round protection – beyond that provided under standard leasing terms – from activities that would disturb or deface the surface of the land. Fluid minerals may only be accessed through the use of directional drilling from sites outside the area needing protection.

**Closed to leasing:** This restriction is self-explanatory, but involves non-discretionary and discretionary closures.

- **Non-discretionary closures** are imposed *on* BLM by a higher authority. Wilderness study areas (WSAs), for example, are closed to leasable mineral development by federal legislation.
- **Discretionary closures** are imposed *by* BLM after due consideration through the planning process. Discretionary closures involve land where (a) other resources are sufficiently important to outweigh

**Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

the economic return that can reasonably be expected from mineral development and (b) environmental impacts from lease operations could irreparably damage these resources.

- **Special stipulations:** These are specific operating conditions, imposed when a lease is issued, that add-to or modify standard leasing terms and conditions. However, exemption from, or waiver of, special stipulations may be allowed if existing or emerging technology can be used to meet management objectives for the sensitive resource.
- **Other special stipulations:** There are stipulations that do not fit commonly-identified (stipulation) categories. These are applied when a resource requires protection over a wide geographical area (region), or when impact information is incomplete or dubious. Because of the potential for significant harm, the stipulation is applied to all leases.

**2.3.3.4 Proposed Management Actions**

A total of 391,339 acres would be ‘Open’ to exploration and development of leasable minerals under standard BLM terms and conditions. Approximately 414,679 acres would be ‘Closed’ to exploration and development of leasable minerals (see Table 2.3-1). WSAs (380,359 acres of the ELFO management area) are ‘Closed’ to leasable mineral exploration and development. However, any WSA, or portion thereof, that Congress releases from wilderness study status would be ‘Open’ for mineral leasing—unless closed by other management decisions (as listed below).

Areas within 0.25 miles of sage-grouse leks, pronghorn kidding grounds, and known raptor nesting sites would also be ‘Closed’ to exploration and development of leasable minerals. Other sensitive wildlife habitats may be closed as additional information is obtained.

**Table 2.3-1** Areas ‘Closed’ to Energy and Mineral Leasing

Closed Areas	Size (acres)
Eagle Lake Basin ACEC	34,320
WSAs	380,359
Areas within 0.25 miles of sage-grouse leks, pronghorn kidding grounds, and known raptor nesting sites	To be determined
<b>Total</b>	<b>414,679</b>

Seasonal, and other restrictions, would apply on 147,227 acres in the following areas to protect resources:

- Fort Sage Special Recreation Management Area (SRMA) (28,494 acres)
- Antelope/Shaffer/Bald Mountain SRMA (61,764 acres)
- South Dry Valley SRMA (46,813 acres)
- North Dry Valley ACEC (10,156 acres)

NSO restrictions would apply on 69,522 acres to protect unique resources in the following areas:

- Nobles Emigrant Trail (24,340 acres)
- Pine Dunes ACEC (2,887 acres)
- Willow Creek ACEC (2,130 acres)
- Lower Smoke Creek ACEC (894 acres)
- Buffalo Creek Canyon ACEC (36,515 acres)
- Bizz Johnson Trail SRMA (2,756 acres) (includes Susan River ACEC (2,495 acres))

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

NSO restrictions would apply between 0.25 and 0.5 mile from sage-grouse leks, and between 0.25 and 0.5 mile from known raptor nesting sites and pronghorn kidding grounds.

Leasable mineral activities would be managed in compliance with the *Conservation Strategy for Sage-grouse and Sagebrush Ecosystems within the Buffalo-Skedaddle Population Management Unit*. Structures that could serve as raptor perches would not be allowed within two miles of active sage-grouse leks.

### 2.3.4 Locatable Minerals

Withdrawal of lands from mineral entry can only occur through nondiscretionary actions by Congress or the Secretary of Interior.

#### 2.3.4.1 Goal

Exploration and development of locatable mineral resources would be encouraged to the extent this is compatible with the preservation and management of other resources.

#### 2.3.4.2 Objectives

Provide opportunities to explore and develop locatable mineral deposits while simultaneously protecting other resources. Specify appropriate mitigation measures to protect and/or preserve vegetation, wildlife habitat, and water quality, as well as cultural and other resources and resource uses. Ensure that the results of final reclamation conform to BLM standards and any additional stipulations.

Recommend withdrawal of lands from locatable mineral entry where relevant and important resources occur, and it is determined they must be protected from locatable mining operations.

#### 2.3.4.3 Proposed Management Actions

WSAs are ‘Open’ to exploration and development of locatable mineral resources; however, activities are limited to those *not requiring reclamation* (except under valid, pre-existing rights obtained prior to October 21, 1976).

ACECs that remain ‘Open’ to exploration and development of locatable minerals would require a detailed plan of operations to protect sensitive resources.

A total of 8,406 acres would be recommended for withdrawal from development of locatable minerals, as outlined in Table 2.3-2.

**Table 2.3-2** Areas Recommended for Withdrawal from Locatable Mineral Development

Closed Areas	Size (acres)
Pine Dunes ACEC	2,887
Susan River ACEC	2,495
Willow Creek ACEC	2,130
Lower Smoke Creek ACEC	894
<b>Total</b>	<b>8,406</b>

The rest of the management area (1,014,361 acres) would be ‘Open’ to exploration and development of locatable minerals, with stipulations to protect other resources.

## 2.3.5 Saleable Minerals

### 2.3.5.1 Goal

Provide mineral materials sufficient for the requirements of local, state, and federal agencies, and respond to public demand for decorative rock, to the extent this is compatible with the preservation and management of other resources.

### 2.3.5.2 Objectives

Ensure that mineral material pits are developed, used, maintained, and closed in a manner that minimizes adverse impacts on other resources. Ensure that commercial and non-commercial decorative rock gathering is conducted in an environmentally sensitive manner and restricted to areas that are suitable for such use.

### 2.3.5.3 Proposed Management Actions

WSAs are ‘Closed’ to saleable mineral extraction. Where extraction of saleable minerals is permitted, standard (BLM) terms and conditions would apply, unless additional restrictive stipulations are required, as listed through the environmental analysis process.

A total of 388,765 acres would be ‘Closed’ to saleable mineral extraction, as outlined in Table 2.3-3. The rest of the management area (634,002 acres) would remain ‘Open’ to saleable mineral extraction.

**Table 2.3-3** Areas ‘Closed’ to Saleable Minerals

Closed Areas	Size (acres)
WSAs	380,359
Pine Dunes ACEC	2,887
Susan River ACEC	2,495
Willow Creek ACEC	2,130
Lower Smoke Creek ACEC	894
<b>Total</b>	<b>388,765</b>

Extraction of sand and gravel for commercial purposes would continue from designated pits. However, creation of new pits, expansion of designated pits, or re-opening closed pits (including reclaimed sites) *for commercial purposes* would only be permitted to satisfy local demand and local projects.

Materials required for road maintenance by BLM and state, county, or city governments would be provided from active sites and, when necessary, by expanding active pits or re-opening closed pits (including reclaimed sites). Construction of new pits would only be considered where necessary for road maintenance *and* when designated or previously-closed pits have been exhausted. New pits, if approved, must be compatible with the goals and objectives for other resources.

Decorative rock collecting – for commercial and personal use – would be allowed where compatible with environmental values and other resource uses. However, collecting would be limited to areas that are accessed by the existing road network and only small, rubber-tired (i.e., low-impact) vehicles would be allowed to stray from roads and actively-disturbed areas. Sales would be limited to an appraised value of \$2,000 per application.

### **2.3.6 Renewable Energy**

The National Energy Policy calls for an increase in renewable energy production on federal lands. Renewable energy resources within the ELFO management area include western juniper as a biomass fuel, wind energy, and solar energy. Biomass fuel use would be managed consistent with (Section 2.5 Forestry, 2.6 Fuels Management, and 2.17 Vegetation). Developments for wind and solar energy are managed as land use authorizations, under the right-of-way authority (see Section 2.7 Lands and Realty). Because of the unique nature of wind and solar energy management, they are addressed in an independent section, separate from Energy and Minerals and Lands and Realty.

There has not been interest in solar energy development on BLM lands within the planning area. However, interest is increasing significantly in wind energy, and several companies have begun the testing process to assess site specific potential for development. For that reason, the goals and management actions below are focused primarily on wind energy development. If solar energy demand increases, the same authorization processes would apply.

A map showing potential areas for wind energy development within the ELFO area was developed by the National Renewal Energy Laboratory and is shown on Map EN-1.

#### **2.3.6.1 Goal**

Facilitate access to renewable energy production on federal land, involving all interested persons in an open process. The program would support national energy needs, while protecting sensitive resources.

#### **2.3.6.2 Objectives**

Develop renewable energy facilities and operations in a manner that minimizes adverse effects on other resources, public land uses, and community interests.

#### **2.3.6.3 Proposed Management Actions**

- The majority of the ELFO management area is ‘Open’ and available for renewable energy development. Specific renewable energy project proposals will be considered through the right-of-way (ROW) authorization process, in accordance with FLPMA, regulations, and BLM policy.
- WSAs (380,359 acres) are exclusion zones for all renewable energy development.
- Seven ACECs (89,397 acres) are ROW avoidance areas. This means that any applications for new ROWs or utility corridors would only be granted if BLM concurs 1) the only feasible location is within the ACEC, and 2) no relevant and important resources would be adversely affected. It is incumbent on the ROW applicant to investigate and document that the only feasible location is within the ACEC. BLM will utilize the applicant’s documentation to evaluate concurrence through a site-specific environmental analysis.
- Wind energy projects will be designed and developed in accordance with the *Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States, 2005 (Wind Energy PEIS)*. Implementation of any proposed management actions would ensure that potential adverse impacts to the natural and cultural resources are minimized, consistent with the programmatic guidance of this EIS. See Appendix N for a list of Wind Energy Best Management Practices (BMPs).

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Adverse impacts to wildlife and their habitats will be reduced by following the U.S. Fish and Wildlife Service's (USFWS's) *Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines*, 2003.
- Project analysis will include consultation with Native American tribes to identify and mitigate potential impacts to cultural resources and traditional cultural properties.
- Prior to authorizing any wind energy projects, a site-specific environmental analysis would be conducted to determine project feasibility and address and mitigate impacts. This analysis will include public involvement, and an assessment of cumulative impacts associated with a reasonably foreseeable development scenario for wind energy within the region.
- A number of areas potentially suitable for wind energy development are identified in this PRMP as Visual Resource Management (VRM) Class II (see Chapter 2.21). BLM recognizes that wind energy development would likely be inconsistent with this VRM classification. An analysis to reconsider VRM classes for potential wind energy locations is being deferred until specific projects are proposed and a reasonably foreseeable development scenario is completed. This analysis will assess both site specific and cumulative visual impacts, and will include visual simulations to illustrate these impacts from key observation points, such as communities and trail corridors.

## 2.4 Fire Management (Appropriate Management Response)

The Federal Fire Policy defines “wildland fire” as “Any non-structural fire that occurs in the wildland.” Three distinct categories of wildland fire are identified:

**Wildfire:** Caused by man or naturally ignited, these are suppressed using the “appropriate management response” (AMR).

**Wildland Fire Use:** These naturally-ignited fires are allowed to burn in order to realize resource benefits. Wildland fire use (WFU) is not technically a suppression strategy; a naturally ignited fire is used to achieve specific resource goals for designated areas. WFU areas are pre-identified areas where wildland fire will be used to protect, maintain, and enhance resources, and—as nearly as possible—be allowed to function in its natural ecological role. Use of fire is based on the approved Fire Management Plan and follows specific prescriptions contained in operational plans. Areas designated as WFU areas are expected to have a wider range of conditions that would still result in a non-resource damaging fire. These areas typically have missed fewer fire return intervals and therefore have less of a fuel buildup and have not been substantially altered ecologically.

**Prescribed Fires:** These planned, deliberately ignited fires are set by resource managers in order to accomplish resource management objectives.

Management actions regarding fire are defined and discussed in “Federal Wildland Fire Policy” (2001), Appendix D, pages 43-44. This policy addresses the following management actions:

**Response to Wildland Fire:** Fire, as a critical natural process, would be integrated into land and resource management plans and activities across agency boundaries on a landscape scale. Appropriate response to wildland fire is based on ecological, social, and legal considerations. The circumstances of the fire and its likely consequences for firefighter and public safety are of primary concern. After this, consideration is given to protecting natural and cultural resources. These factors dictate the appropriate response.

**Protection Priorities:** As previously stated, protection of human life is the single overriding consideration. After this, priorities are set between protecting communities and infrastructure versus natural and cultural resource objectives. Decisions would be based on health and safety needs, the resources requiring protection, and the cost of that protection.

**Suppression:** Fires would be suppressed at minimum cost consistent with human safety and resource objectives, the value of the resources requiring protection, and the likely benefits of fire suppression efforts.

**NorCal Fire Management Plan:** The NorCal Fire Management Plan (FMP) is a strategic document for wildland fire management and hazardous fuels treatments within the ELFO area. FMPs define a strategy to manage wildland and prescribed fires based on the area's approved land management plan. The current NorCal FMP displays qualitative and quantitative objects that are in conformance with the existing Management Framework Plans for the ELFO. The current NorCal FMP would be updated upon signature and approval of the PRMP to reflect management actions within the PRMP.

The NorCal FMP will be reviewed annually and revised as needed to ensure that the strategic guidance provided in the plan is in accordance with resource management and fire/fuels management goals, objectives, and actions outlined in the Eagle Lake PRMP. The management direction outlined in any future version of the FMP would be tiered to the NEPA analysis that was completed for this land use

plan. Revisions, additions, and adjustments to the FMP that are in conformance with the PRMP may be made in the future. Additional NEPA analysis would be conducted on any revision, addition, or adjustment that is not adequately analyzed in other planning/NEPA documents.

### **2.4.1 Appropriate Management Response**

AMR is a specific and appropriate pattern of actions designed to ensure public and firefighter safety while achieving resource objectives. AMR may encompass the entire spectrum of tactical options, from monitoring to aggressive suppression. The AMR is developed using objectives and strategies identified in the current NorCal FMP. Response to wildland fire is based on evaluation of firefighter and public risk, the circumstances under which the fire occurs (especially weather and fuel conditions), natural resource management objectives, and the protection of human property and values. Priorities are based on analysis and evaluation of fire context, local geography, and the current national wildland fire situation.

Appropriate management response typically fits one of the following management scenarios:

- Prompt and aggressive action to quickly master the fire and keep the burned area to a minimum. This is the appropriate response within the “wildland urban interface” (WUI), developed recreation sites or facilities, and critical natural resource or cultural areas where wildfire is not desired.
- Monitoring a wildland fire when topography, weather, and fuel conditions reflect a minimal threat to (adjacent) government-owned or private lands, resource objectives are likely to be enhanced (or at least not imperiled) and safety considerations are reasonable.
- Aggressive suppression on one portion of the fire while monitoring another section of the same fire.

The ELFO fire management plan is revised periodically and segues to the general fire management direction of this PRMP. AMR is identified and described for the entire management area. Potential locations and acceptable conditions for the use of prescribed or wildland fire are identified, plus other factors pertaining to fire management. A protocol is identified for appropriate management response during initial attack and for full suppression when wildland fires threaten BLM and other federal or state lands, as well as private property. Sensitive areas, such as habitats of endangered or threatened species and significant cultural sites, are also addressed in the FMP.

### **2.4.2 Desired Future Condition**

Fire managers would utilize the appropriate management response to control wildfires. Unplanned fires will be aggressively suppressed *only* where they threaten the wildland urban interface, private timber and property, special resources, or sensitive habitats, and in areas where vegetation is at risk of type-conversion to noxious weeds (in the BLM Direct Protection Area).

Fire managers would reintroduce fire—and its ecological benefits—to restore and maintain healthy ecosystems. Vegetation communities would be healthy, exhibiting diverse age classes and seral stages. Fire would be used to restore healthy ecosystems and watersheds in order to provide adequate forage for livestock; sufficient food, thermal, and escape cover for wildlife; sustain productive forests and enhance recreational opportunities. A “confine-and-contain” strategy would be typical of the flexibility required of fire managers in the use of adaptive management to achieve these ends. The cost of fire suppression would be dramatically reduced in the long-term.

### **2.4.3 Goals**

#### ***Wildland Fire Management***

Provide an AMR for all wildland fires that emphasizes the safety of firefighters and the public. With safety being the highest priority, further decision-making would be based on the value of resources and property requiring protection, commensurate with fire management costs.

#### ***Risk Mitigation and Education***

Enhance public awareness and knowledge of hazards associated with fuel accumulation and fire, as well as practical preventive measures especially in the wildland urban interface. The public must also be educated about the natural role of fire in the ecosystem and the use of prescribed fire to protect property, reduce fuels, and maintain healthy plant and animal communities.

### **2.4.4 Objectives**

#### ***Wildland Fire Management***

Control wildland fires that merit aggressive suppression at minimum cost and with the smallest possible area burned. The full array of management actions may be used unless site-specific restrictions apply (e.g., WSAs, research natural areas [RNAs], ACECs, NRHP-eligible sites). Aggressive suppression is paramount in the WUI and in some important habitat areas.

Fire would be used as much as possible as a natural and cost-effective means of restoring, maintaining, and improving ecosystems. Areas with a history of wildland fire – under conditions showing little potential for spreading – should be considered for WFU, monitoring, or a containment-and-confinement strategy. This must be accomplished with minimal firefighter risk and at the lowest possible cost.

#### ***Risk Mitigation and Education***

Education would emphasize community protection procedures and public safety measures. ELFO fire managers are committed to providing fire education assistance to communities that have been or may be threatened by wildland fires. Active community participation and citizen-driven solutions are essential in reducing the risk of fire in the WUI. More specifically, the ELFO provides support for citizen education on fuel reduction and fire effects, development of community wildfire protection plans, volunteer firefighter refresher training (on a yearly basis) and equips rural and volunteer firefighters when funding is available. Communities may take action to live safely in fire-prone areas by availing themselves of grant programs such as rural, state, and volunteer fire assistance and economic action programs. These are available through a variety of state and federal agencies.

ELFO fire and resource managers will work with communities, fire safety councils, and other government agencies to identify wildland fire hazards and create mitigation strategies, as well as providing public education on the subject of fire ecology and fire as a natural ecosystem process.

### **2.4.5 Legislative, Regulatory, and Policy Direction**

#### **2.4.5.1 General**

- Federal Wildland Fire Management Policy and Program Review (1995), revised 2001
- Interagency Fire Management Plan
- A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-year Comprehensive Strategy Implementation Plan

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

- The Interagency Standards for Fire and Aviation Operations (published annually)
- Department of the Interior Departmental Manual (DM) (DM 910)
- BLM Bureau Manual 9200
- Fire Management Plan Guidance: Instruction Manual (IM) No. 2003-38
- Land Use Plan Guidance: IM No. 2004-007
- A MOU exists between all federal and state agencies concerned with fire management on public and private lands in California. This is the Cooperative Fire Protection Agreement (between the USDI-BLM for CA and NV; USDI-National Park Service, Pacific West Region; U.S. Department of Agriculture (USDA) Forest Service, Regions 4, 5, and 6; and the California Department of Forestry [CDF]).
- BLM uses the Fire Program Analysis software to allocate resources and determine fire management budgets in relation to natural resource goals and objectives.

### **2.4.5.2 Specific to the Eagle Lake Field Office**

MOUs with other agencies:

- Fire Suppression Operating Plan – Reno Fire Protection District, Washoe County, Nevada
- Interagency Protection Agreement – USDI-BLM, Winnemucca District
- Interagency Protection Agreement – USDI-BLM, Carson City Field Offices; USDA-FS Tahoe National Forests
- Interagency Protection Agreement – USDA Forest Service, Modoc National Forest
- Interagency Protection Agreement – BLM, Lakeview District
- Cooperative Fire Protection Agreement – Janesville Fire Department
- Cooperative Fire Protection Agreement – Lake Forest Fire Department
- Cooperative Fire Protection Agreement – Milford Fire Department
- Cooperative Fire Protection Agreement – Spaulding Fire Department
- Cooperative Fire Protection Agreement – Standish-Litchfield Fire Department
- Cooperative Fire Protection Agreement – Stones Bendgard Fire Department
- Cooperative Fire Protection Agreement – Susanville Fire Department
- Cooperative Fire Protection Agreement – Susan River Fire Department
- Cooperative Fire Protection Agreement – Termo-Ravendale Fire Department

### **2.4.5.3 BLM Plans**

- California Master Agreement between USDA Forest Service, USFWS, Bureau of Indian Affairs, National Park Service, CDF, and BLM
- NorCal Fire Management Plan (in development)
- ELFO Fire Management Direction (from Phase I Fire Planning)
- Risk Assessment and Mitigation Strategies
- Private Land protection for CDF (SRA lands) and Reno (SRA, Nevada lands)

## **2.4.6 Proposed Management Actions**

### **2.4.6.1 Wildland Fire Management**

Adaptive management and the full range of AMR options for wildland fires—from full suppression to monitoring and containment—would be applied on approximately 71% (730,124 acres) of the management area. Containment in the latter option would involve direct and indirect actions, plus the use of natural (e.g., rock outcroppings, rivers) and man-made (e.g., roads) barriers. Fuel and weather conditions would be critical factors in adaptive management decisions.

Under conditions of severe fire-intensity—as described in the NorCal FMP—aggressive, initial attack and aggressive suppression would be the AMR for all areas, especially the WUI. Exceptions would be made only where resource objectives could be achieved and the fire safely contained. Under conditions of low fire-intensity, a less aggressive AMR would be indicated. Response would be determined by resource management objectives identified for the area. Suppression during initial attack may include the use of engines, aircraft, retardant, hand crews, and heavy equipment. The use of heavy equipment would be avoided in ACECs, RNAs, WSAs, and NRHP-eligible sites, except where deemed necessary by the (fire) line officer. Local resources, contractors, and personnel would be used as much as possible in suppression efforts.

The NorCal FMP (in development) would be used at all levels for fire management strategies. This plan would provide details for implementation level wildland fire management response as well as various suppression options. It would also identify conditions and potential locations for wildland fire use, prescribed burning and other fuel-reduction treatments, in accordance with the PRMP. The current draft NorCal FMP would be updated upon signature and approval of the Eagle Lake PRMP.

WFU plans or monitoring strategies would be developed for approximately 10,339 acres (see Map FIRE-1). The vegetation and other resources in this area have been evaluated, and a determination made by BLM that no resource damage would occur by employing this strategy. WFU may also be selected as the desired AMR for other wildland fire areas (within the 730,124 acres), if it is apparent that a wildland fire is achieving resource benefits (e.g., fuel reduction, restoration of natural processes). The fire would be managed under a contain-and-confine strategy and allowed to burn to natural or man-made barriers. This alternative would permit fire to play a natural and significant role in most vegetation types, given existing constraints.

Aggressive suppression would remain the AMR on 282,304 acres, within the wildland urban interface and other known sensitive resource areas (see Map FIRE-1).

Use of heavy equipment to control fires would be avoided in ACECs, RNAs, known NRHP-eligible sites, WSAs, and other sensitive areas. If use of heavy equipment is deemed necessary, (fire) line officer approval is required and equipment would be restricted to existing roads and trails. Use of retardant would be allowed within these areas for initial attack. Its use for extended attack would be considered as part of the wildland fire situation analysis, taking into account the resource values at risk as well as firefighter and public safety.

### **2.4.6.2 Risk Mitigation and Education**

Fire prevention classes and education programs concerning the natural role of fire would be given in local schools. BLM fire management representative(s) would attend local fire safety council meetings to present programs dealing with the risks of hazardous fuel build-up and wildland fire as well as information on basic fire ecology and the beneficial role it plays in local ecosystems. Hazard assessment and identification of at-risk areas would be ongoing. When at-risk areas are identified, mitigation projects

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

would be designed in cooperation with local agencies. Volunteer fire departments would be assisted with yearly safety training and issued equipment (as funding allows). BLM would work with local communities to develop and implement comprehensive, community wildfire protection plans.

## **2.5 Forestry**

Forestry plays a small but significant role in the ELFO resource management program. Forest management activities have generally been conducted on the best growing sites and on brush fields created by wildfires (where tree plantations have subsequently been established). Timber has been harvested mainly from mature stands, with the object of removing older, high-risk (for disease and decay) trees. Forestry practices have emphasized species and stocking control (i.e., preferred tree species and desired optimal density), preferential production of saw-logs, wildfire suppression, plus insect and disease control. The ELFO has managed forests under the authority of the Willow Creek Management Framework Plan (BLM 1983) and the Sustained Yield Unit 15 Plan (BLM 1981a).

Forests in the ELFO management area tend to be patchy and interspersed with rangeland. For this reason, large timber sales have not been conducted. Green timber sales during the 1960s, 1970s, and 1980s were 100 - 200 acres in size and contained less than 100,000 board feet. The 1990s witnessed an upturn in salvage timber sales (fire or insect killed). These sales have been much larger (up to 20 million board feet) of dead or dying timber on as much as 2,000 acres. This mortality echoes a pattern that is evidenced throughout the forests of the West. It has spurred Presidential initiatives and legislation designed to restore healthy forests.

The Healthy Forests Initiative (begun in 2002) and the Healthy Forests Restoration Act (2003) contain measures to reduce hazardous fuels and restore areas damaged by wildfire. The Healthy Forests Initiative, in particular, is designed to implement core components of the National Fire Plan's "Ten-Year Comprehensive Strategy and Implementation Plan." The plan creates a framework for protecting communities and the environment through collaboration with local communities and businesses on thinning, prescribed burns, and forest restoration projects.

Coniferous forests and juniper woodlands cover approximately 46,000 acres of the management area. Of this, 21,962 acres are coniferous forests of all canopy cover classes. However, only 11,020 acres is sufficiently productive to be of commercial grade.

### **2.5.1 Desired Future Condition**

The desired future condition (DFC) is stable forests where all ecosystem components are present and functioning normally. Such a condition may be characterized as follows:

- Trees would be sufficiently spaced to promote vigorous growth and a healthy understory.
- Food, escape, and thermal cover would be sufficient for the needs of wildlife.
- Fuels treatments would be successful, thus encouraging lower-intensity (surface) fires.
- Forests would consist of trees and other vegetation of all age classes, sizes, and (desired) species composition.

Generally speaking, these conditions would be achieved by selective thinning and burning ground cover (to keep fire out of the forest canopy). Tree stocking levels (in order to meet the DFC) would range from a high of 200 seedlings/saplings per acre to a low of 10 to 20 large trees per acre (which is appropriate for the mesic growing sites of the ELFO management area).

**2.5.2 Goal**

Create healthy forest ecosystems in all seral stages that are ecologically stable, support natural watershed function, and supply the needs of wildlife. Conditions would be such that wildfires are controllable (i.e., forests would approximate original, natural conditions) and human needs for recreation, wood products, and other objectives are adequately addressed.

**2.5.3 Objectives**

- Conduct forest improvement projects on commercial and non-commercial forests and woodlands.
- Reduce hazardous fuels on commercial and non-commercial (i.e., low-site) forestlands.
- Provide commercial forest products through good forest stewardship and timber sales.
- Restore juniper-infested rangeland to natural, healthy condition.
- Conduct timber salvage sales (as needed) on commercial and non-commercial forests and woodlands.
- Plant desirable tree species to encourage sufficient growth where forests are damaged by wildfire or otherwise compromised.
- Design logging and fuel-removal projects to create a diversity of age and size classes, using suitable commercial or non-commercial forestry practices.
- Achieve desired forest cover in the area targeted for timberlands as well as desired age and size classes, and stocking density as enumerated in Table 2.5-1.

**Table 2.5-1** Desired Age & Size Class, Stocking Density, and Extent of Forested Area for Timberlands

<b>Age (years) Size (dbh)<sup>1/</sup></b>	<b>Density (trees per acre)</b>	<b>Percent of Total Forested Area</b>
<10 (max 1" diameter)	200–300	10
<30 (max 6" diameter)	50–200	10
<60 (max 12" diameter)	25–50	10
<100 (max 24" diameter)	10–25	20
>100 (over 24" diameter)	1–10	50

<sup>1/</sup>Diameter at breast height

**2.5.4 Legislative, Regulatory, and Policy Direction**

- The Federal Land Policy and Management Act (1976)
- 43 CFR (Code of Federal Regulations), Part 5000 (Forest Management) (1984)
- The Healthy Forests Restoration Act (2003)

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- The Healthy Forests Initiative (2002)
- Timber Management FEIS (1976)
- California Vegetation Management FEIS (1988)
- Timber Management Environmental Assessment: SYU 15 (BLM 1981)
- Memorandum of Agreement (MOA) with the Lahontan Water Quality Control Board
- MOA with the California Department of Fish and Game (CDFG)
- MOA with the USFWS concerning threatened and endangered species
- Willow Creek Management Framework Plan (1983)

### 2.5.5 Proposed Management Actions

Forests will be managed according to guidelines in *The Healthy Forests Restoration Act of 2003*. The focus will be on restorative thinning and reduction of forest fuels. The predominant strategy will favor practices that approximate a natural fire regime in order to restore the variability characteristic of healthy plant communities (while taking necessary precautions to protect human life and property). At least 90% of existing forestland will be restored to a healthy, vigorous state. The risk of catastrophic wildfire will also be greatly reduced, thus providing the highest level of protection for rural communities. Important management actions are listed below.

- Manage 11,020 acres as commercial forestland. Silviculture methods would include commercial thinning, even-age management (shelterwood and clearcutting), uneven-age management (individual tree and/or group selection, and sanitation/salvage), and pre-commercial thinning. Encourage a late seral stage plant community.
- Maintain the maximum sustained yield identified in, and for, “Timber Management Environmental Assessment: Sustained Yield Unit 15” (BLM 1981).
- Manage the Bizz Johnson Trail SRMA (1,332 forested acres) for recreation and community wildfire defense. Employ commercial and pre-commercial thinning and other hazard reduction techniques.
- Continue restoration on 773 acres of forestland recently affected by wildfire. Efforts would include pre-commercial thinning, planting, and control of undesirable plants. Leave the deadwood (snags, rejected logs, and litter) as ground cover.
- Where undesirable plants have invaded quaking aspen stands, remove competing species and take action to expand these stands to their full potential.
- Harvest trees and biomass from 1,100 acres annually.
- Restore forest ecosystems using thinning and fuel-reduction treatments that emphasize prescribed fire. Favor practices designed to approximate a natural fire regime.
- Cultivate trees with late seral characteristics in order to reduce competition, decrease the likelihood of crown-consuming wildfires, and minimize insect infestation and disease.
- Emphasize commercial thinning and biomass removal in forestlands near human settlements (to protect lives and property).
- Implement fuels reduction treatments on 1,734 acres of the Tunnison WSA (using prescribed fire, appropriate management response, and biological treatments). Continue to manage the WSA for wilderness values using fire régime restoration techniques.

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

- Manage Upper Murrer Meadows as commercial forest. However, emphasize wildlife habitat values and a late seral stage ecosystem.
- Restore 1,000 acres of oak woodlands by removing individual trees and burning understory vegetation to remove competing conifers.
- Conduct timber salvage sales (as needed) on commercial and non-commercial forests and woodlands, using existing roads, and low impact methods.

## **2.6 Fuels Management**

Fuels treatments are necessary in order to maintain or restore healthy vegetation and achieve desired resource conditions. They are also necessary to protect human life and property, and ensure the very survival of many natural resources.

The Healthy Forest Restoration Act of 2003 provides direction and guidance for fuels management activities. This includes reducing wildfire risks to communities, municipal water supplies, and other vulnerable areas that are on, or adjacent to, federal lands. The Act also provides general guidance for protecting watersheds, reducing threats to forest and rangeland ecosystems, and recovering threatened or endangered species.

### **2.6.1 Desired Future Condition**

Lands managed by the ELFO would demonstrate healthy watersheds, productive forests, ample livestock forage, and high-quality recreational opportunities. Fuel reduction efforts, in mimicking natural wildfire effects, would have severely diminished invasive juniper and restored plant communities to their natural range of variability, thereby achieving ecosystem health. Forage and cover would be adequate for the needs of wildlife, demonstrating a diversity of seral stages and age classes of vegetation. Plans and projects would have reduced hazardous fuel build-up, providing protection for the WUI through the creation of fuel breaks and defensible space around at-risk communities.

### **2.6.2 Goal**

Reduce hazardous fuels in the ELFO management area—especially in the WUI—using a variety of fuels treatment methods. Develop hazardous fuels treatment plans to restore ecosystem health and wildlife habitat, and protect sensitive cultural areas. Reintroduce fire as a natural and normal component of the ecosystem.

### **2.6.3 Objectives**

Fuels treatments would include prescribed fire, mechanical, chemical, and biological methods. Project location and treatment method would be determined by:

- protection needs unique to the local community
- the judgment of resource specialists
- application of the Risk Assessment and Mitigation Strategies (RAMS) software.

Fuels treatment projects would be prioritized in the wildland urban interface of communities, in sagebrush-steppe ecosystems invaded by western juniper, important wildlife habitats, and areas with sensitive cultural resources. Projects would also target areas with excessive fuels accumulation due to long-term fire exclusion. Long-range fuels treatment projects would be developed and implemented to improve forest and rangeland ecosystems, enhance the quality of recreation or improve opportunities, increase the quantity and quality of livestock forage.

## **2.6.4 Legislative, Regulatory, and Policy Direction**

### **General Guidance**

- The Healthy Forest Restoration Act (2003)
- Federal Wildland Fire Management Policy (USDI 1995) and Program Review (2001)
- Interagency Fire Management Plan Template (2002)
- A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-year Comprehensive Strategy Implementation Plan (Western Governors Association and others 2002)
- The Interagency Standards for Fire and Aviation Operations (published annually)
- USDI-Departmental Manual (DM), Chapter 910
- BLM Manual 9200 – Fire Management
- Fire Management Plan Guidance: IM No. 2003-38 (2003)
- Land Use Plan Guidance: IM No. 2004-007 (2004)
- The Cooperative Fire Protection Agreement (between the USDI-BLM for CA and NV; USDI-National Park Service, Pacific West Region; USDA Forest Service, Regions 4, 5, and 6; and the states of California (CDF) and Nevada) is MOU between all federal and state agencies concerned with fire management operations on public and private lands in California.
- BLM uses the Fire Program Analysis software to allocate resources and determine fire management budgets according to natural resource goals and objectives.

### **BLM Planning Specific to the Eagle Lake Field Office**

#### **MOUs with other agencies**

A “Lassen County Collaborative Fuels Treatment Program” will be developed between the USDI-BLM, USDA Forest Service, Natural Resources Conservation Service, CDF, and Lassen County’s Fire Safety Council.

#### **BLM Plans**

1. NorCal FMP (updated annually)
2. RAMS software

## **2.6.5 Proposed Management Actions**

- Treatment of excessive fuels within the WUI will be the highest priority, since communities-at-risk must be protected from catastrophic wildfire.
- All suitable methods (e.g., mechanical, prescribed fire, chemical, and biological) will be used for the treatment of hazardous fuels.
- Hazardous fuels reduction plans will be developed and implemented to protect human life and property. This process would use RAMS software and involve consultation with resource specialists. Fuel breaks will be used to create defensible space around communities at risk. These plans and projects would also aim to reduce hazardous fuels over a wider area, especially targeting invasive western juniper.

**Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

- Fuels projects will be designed to maintain healthy ecosystems, important wildlife habitats, and preserve or create biological diversity by mimicking the effects of naturally occurring wildfires. Treatments would also preserve cultural sites, protect threatened and endangered species, and maintain an acceptable visual appearance.
- Prescribed burns will be integral to this process with suitable measures to protect human life and property. Burns would be conducted using project-specific “burn plans” designed and approved by qualified resource specialists.
- Fuels treatment projects will be implemented by BLM crews and/or private contractors.
- Fire will be reintroduced as a natural and vital component of the ecosystem. Hazardous fuels treatment plans will be developed that emphasize restoration of healthy ecosystems using prescribed burns and mechanical treatments, as shown on Map FIRE-2.
- The need to protect communities from catastrophic wildfire is the first priority. Otherwise, treatments will emphasize the following areas where the need to reduce hazardous fuels is pressing:
  - the WUI
  - deteriorated or over-mature forest and rangeland ecosystems
  - sensitive cultural resource sites
  - important wildlife habitats.
- Other important, but less immediate, long-range hazardous fuels treatment plans and projects will be developed and implemented to:
  - restore and maintain healthy natural ecosystems (especially in areas degraded by invasive western juniper)
  - expand protection for high-risk communities
  - reduce hazardous fuels over large areas
  - increase the quantity and quality of livestock forage
  - improve timber production
  - improve hunting opportunities
  - protect traditional gathering areas.

**Table 2.6-1** Summary of Hazardous Fuels Reduction Projects by Treatment Type

<b>Treatment Method</b>	<b>Area Treated (acres/year)</b>
Mechanical Treatments	500 to 3,500
Prescribed Burns	0 to 4,500
Chemical Treatments	50 to 500
Biological Treatments	50 to 1,500

## **2.7 Lands and Realty**

Land and realty actions of the ELFO are conducted under two program areas: land tenure adjustments (retention, acquisitions, and disposals) and ROWs.

### **2.7.1 Desired Future Condition**

A deliberate and well-considered combination of public and private land ownership patterns will emerge to enable the most efficient and productive use of management time and financial resources. This will also result in more efficient and effective resource management interventions.

Reasonable access will be provided to public lands, resources, and facilities for the use and enjoyment of the public, as well as for resource management and administrative purposes.

### **2.7.2 Legislative, Regulatory and Policy Direction**

- Federal Land Policy and Management Act (1976), Sections 102, 202, and 203
- Federal Land Exchange Facilitation Act (1988)
- BLM Handbook H-2101-4 - Pre-Acquisition Environmental Site Assessment
- BLM Handbook H-2200-1 – Land Exchange Handbook
- BLM Handbook H-2100 – Acquisition Handbook
- The West-wide Energy Corridor Programmatic EIS (2005)
- BLM Wind Energy Policy (IM 2006-216)
- Final Programmatic EIS on Wind Energy Development on BLM-Administered Lands in the Western United States (2005)

### **2.7.3 Land Tenure Adjustments**

Maps LANDS-1 (one map each for north and south sections of field office area) identify broad geographic areas containing legally and/or geographically isolated parcels of public land that BLM does not intend to actively manage. Typically, these are small parcels, surrounded by private land, that lack road access. Disposal of these areas may be through exchange, sale, or transfer to other agencies. However, BLM has also identified parcels within these geographic disposal areas that would be retained in public ownership because of their resource value.

A frequent lack of identified legal access to public lands administered by BLM (especially those with valued and sensitive resources or facilities) has been—and continues to be—a chronic problem for the Bureau. Identifying or procuring legal access to public lands is necessary for public use and enjoyment, for conducting management activities, and for administrative purposes. Prioritization and decisive, positive action to identify or acquire legal access to these areas is necessary and long overdue.

### **2.7.4 Goal 1: Lands for Retention or Potential Acquisition**

Work with willing private landowners to complete land acquisitions that will provide public land management benefits as well as management benefits for private landowners. Focus retention and acquisition efforts in areas with larger expanses of public lands with small in-holdings. Identify or acquire

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

legal access to public lands so that they may be accessible to the public and effectively managed for multiple-uses.

Adjust land ownership in a manner that would consolidate public holdings and facilitate efficient administration to meet public and community needs. Maintain ownership of lands with high resource values.

### Proposed Management Actions

- As a general rule, retain federal ownership of public lands with high resource value.
- Maintain or improve public access during all land ownership adjustment transactions.
- Focus management of newly acquired lands on the most important use for which they were acquired.
- Newly acquired lands within existing Congressionally designated special management areas that contain unique or fragile resources would be managed according to established guidelines for the surrounding special management area.
- When land status changes affect an area, adjacent or nearby parcels would be managed for retention or disposal according to the (new) criteria that apply to the area whose status has changed.
- When opportunities arise, acquire isolated tracts of non-federal land within special management areas in order to consolidate ownership and eliminate inholdings.
- Acquire easements from (willing) landowners to gain legal access to public lands.
- The following methods would be used to acquire lands or gain legal public access: purchase, donation, exchange, transfer, withdrawal, condemnation, or less-than-fee approaches (e.g., conservation easements, access and utility easements, and mineral and water rights).
- Work with (willing) private landowners to acquire lands that would support management goals for public lands and also benefit private landowners.
- Prioritize acquisition and retention efforts to areas where large expanses of public land contain small private inholdings with unique characteristics (e.g., historic/cultural resources, ecologically sensitive or important wildlife habitats, abandoned railroad grades) or where land is required to obtain legal public or administrative access (through purchase or easement acquisition).
- Retain large blocks (i.e., sizable and fairly-well consolidated tracts of land) of BLM-administered land in public ownership.
- Retain lands where site-specific examination by an authorized person confirms the presence of important resources or unique characteristics on lands that were previously selected for disposal. Such lands would be designated for “custodial” management.
- Acquisition of land would be prioritized as a fundamental tool for protecting resources, enhancing recreational opportunities, serving communities, and providing public resources for economic benefits.
- Acquisitions would be prioritized within or adjacent to WSAs, SRMAs, and other special management areas.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- BLM would seek acquisition of other non-federal lands (on a case-by-case basis) based on the following criteria<sup>1</sup>:
- Lands must have resources that are unique to the geographical area (e.g., historic/cultural resources, ecologically important habitats, abandoned railroad grades).
- The land should be adjacent to or within a large, contiguous block of public land.
- Public and administrative access must be obtainable.

BLM would also consider acquiring land not listed in this PRMP if the acquisition would help fulfill resource management objectives and is compatible with other decisions made in this PRMP. The acquisition must also be in the public interest and meet one or more of the following criteria:

- The acquisition would meet the needs of local and state governments; especially the needs of public purpose, community development, and economic benefit.
- BLM would gain an important and manageable public land resource (e.g., critical wildlife habitat (especially for a “listed” species), a key ecosystem component, significant cultural site, water or mineral resources).
- Acquisition would ensure administrative and public access where this is needed and not otherwise obtainable.
- Acquisition would facilitate more effective management and meet essential resource objectives by consolidating land ownership.
- The acquired land would serve regional or national priorities as enumerated in policy directives or legislation.

### 2.7.5 Goal 2: Lands for Potential Disposal

Identify broad BLM-administered land areas where BLM intends to dispose of parcels through either land exchange or sale. Focus land disposals (by sale or exchange) on small, scattered, or isolated parcels surrounded by private land in areas where BLM does not intend to pursue active management. The objective is to improve resource utilization and management efficiency (e.g., improved grazing management and increased opportunities for mineral development and leasing).

#### Proposed Management Actions

Lands would generally be identified for disposal when they have low or unknown (but probably minimal) resource value, are isolated or fragmented from other public lands (particularly when they lack legal access) and therefore, difficult or inefficient to manage. However, BLM would retain parcels that fulfill one or both of the following criteria:

- The parcel facilitates natural resource management objectives by consolidating federal, state, and private ownerships.
- The parcel is useful in protecting a special status species, preserving biological diversity, providing recreational opportunity, or preserving archaeological, historical, or paleontological resources.

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<sup>1</sup> Fee acquisition is strongly preferred; this manner of purchase would facilitate operation and maintenance because all (or most) interests would be under BLM stewardship. Fee title donations do not require federal funds and may have tax advantages for the donor. Finally, acquisition of fee title would reduce conflicts, because rights would not be reserved. Reserved rights could place constraints on BLM management goals and objectives for acquired land.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

WSAs, ACECs, WSRs, and other special management areas are designated for retention in federal ownership. These designations would preclude disposal.

Lands with habitat for federally listed, proposed, and candidate species or proposed or critical habitat would not be exchanged or disposed, unless the party acquiring the land agrees to maintain the habitat for the species.

Disposal of selected lands (identified on Maps LANDS-1 [a total of 24,041 acres]) is proposed. These are small, scattered, or isolated parcels surrounded by private land in areas where BLM does not intend to pursue active management.

Disposal may be by “recreation and public purposes” (R&PP) sale or lease; “desert land entry” (DLE); withdrawals; resolution of trespass; or exchange or sale into private ownership.

If the mandatory, site-specific examination reveals the presence of important resources or unique characteristics—as determined by a person authorized by BLM—the parcel previously identified for disposal would be reclassified, placed in “custodial” management and retained in BLM ownership for the life of this PRMP. However, at the discretion of this same authorized person, public lands may be sold or exchanged (reluctantly and on rare occasions) if they fulfill the following criteria:

1. Disposal would reduce administrative burden and /or result in a net benefit to the public. Although not identified on Maps LANDS-1, certain parcels within designated retention zones would also be considered for disposal (APN's 65-24-15, 65-24-16 and lands in Township 30 North, Range 15 East, Section 22).
2. Disposal is required to resolve good-faith (unintentional) occupancy trespass issues involving one or more of the following:
  - Large buildings that are not feasible to move
  - Occupancy trespass resulting from survey errors or updated surveys that show buildings to be inadvertently located on public land
  - Occupancy trespass that cannot be resolve under Section 315 or Section 316 of FLPMA
  - Land that is not suitable for third-party disposal or direct exchange

Sufficient funding must be available to conduct the mandatory environmental studies required prior to sale. Funds may come from the ELFO realty budget or may be contributed by potential buyers. Any sale would be limited to the smallest feasible portion or lot that would resolve the trespass issue (as determined by the BLM-authorized person).

3. Disposal is needed to resolve land management difficulties that arise when small “slivers” of public land are isolated between larger areas of private land as a result of survey errors or recent survey of previously un-surveyed land. In these cases, sale is advisable when lack of contiguity with other public lands and/or small size does not permit legal access *and* the parcel is not suitable for disposal by direct exchange with the adjacent landowner. Sufficient funding must be available to conduct the mandatory environmental studies required prior to sale. Funds may come from the ELFO realty budget or may be contributed by potential buyers. Any disposal would be limited to the smallest feasible portion or lot that would resolve the trespass issue (as determined by the BLM-authorized person).

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

4. Under certain conditions, lands that are “suitable for desert land entry” (DLE) may be purchased by qualified applicants. However, lands that were classified “unsuitable for desert land entry” under previous management framework plans retain this classification in perpetuity and are not available for purchase under this program. Furthermore, lands with a Natural Resources Conservation Service (NRCS) land capability classification of IV or higher are, by definition, unsuitable for DLE. Class III lands are considered on an individual basis. BLM would make a final determination on desert land entry case CACA 5902 under this PRMP.

Recreation and public purposes (R&PP) lands are leased for specified time intervals (usually 20 years), and are frequently renewed in perpetuity. Under this PRMP, BLM would complete conveyance of lands under lease for one recreation area (Lassen County Rifle Range [CACA 6072]) and three landfills/transfer stations (Johnstonville/Bass Hill [CAS 5810], Herlong [CAS O79547], and Stone’s Transfer Station [CACA 4300]).

BLM-administered lands can be withdrawn from multiple-use management (e.g., WSAs, ACECs, and RNAs) or withdrawn from BLM management and entrusted to other federal agencies for specified purposes (e.g., military reservations). Withdrawals may also involve national cooperative land (e.g., national historic/scenic trails and wildlife management areas) or other legally established special status areas. Such areas may be designated by an act of Congress, executive order, secretarial order, withdrawal, or other formal agency designation through a notice in the Federal Register. BLM-ELFO may be required to review current withdrawals to determine the need for continuance, modification, revocation, or termination. Future withdrawals will be considered on a case-by-case basis according to Section 204 of FLPMA. The Secretary of the Interior may act to terminate withdrawals other than those made by act of Congress.

The management area includes withdrawals within the Sierra Army Depot. The Depot is charged with receiving, issuing, and renovating munitions, and their efficient and safe deactivation. As a result of a detonation that extended beyond the demolition range boundary some years ago, the Sierra Army Depot built a safety fence encompassing an additional 1,328 acres of BLM-administered land. The Army Corps of Engineers is seeking an official withdrawal of this area.

### 2.7.6 Goal 3: Rights-of-Way

Manage public lands to support the goals and objectives of all resource programs, respond to public requests for land use authorizations, and acquire administrative and public access where needed. Conduct ROW transactions, decisions, and actions in a manner that would prevent adverse impacts to scenic, ecological, water, air, scientific, and archaeological or historical values.

#### Proposed Management Actions

BLM would analyze requests for land-use authorizations on a case-by-case basis according to direction in NEPA. Land use includes authorizations and agreements that allow BLM-administered lands to be used for ROWs. They also include road-use agreements and (associated) temporary permits under various authorizations including:

- Leases, permits, and easements regulated under Section 302 of FLPMA
- Airport leases regulated under FLPMA
- Recreation and public purposes leases (refer to Land Tenure Adjustments, Section 2.7.4.6 for R&PP transfers)

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

ROWs, leases, easements, or permits would not be required for activities that are considered “casual use.”

New ROWs would be located within or adjacent to existing ROWs, to the extent that is practicable, in order to minimize adverse environmental impacts.

All land use authorizations will be evaluated for their impact to sensitive resources, including critical and/or important wildlife habitat. Future BLM-granted ROWs, including utility corridors and communication sites, would be consistent with USFWS guidance to minimize effects to migratory birds.

WSAs (380,359 acres) would be designated as ROW exclusion zones. All proposals must meet non-impairment criteria which prohibit permanent facilities unless they are grandfathered, have valid existing rights, or provide access to private inholdings.

All ACECs are ROW avoidance areas. This means that any applications for new rights-of-way or utility corridors would undergo a site-specific NEPA review, and would only be granted if BLM concurs 1) the only feasible location is within the ACEC, and 2) no relevant and important resources would be adversely affected. It is incumbent on the ROW applicant to investigate and document that the only feasible location is within the ACEC. BLM will utilize the applicant’s documentation to evaluate concurrence.

Owners of private land surrounded by public land (managed under FLPMA) would be granted access across public land to permit reasonable use of their property. ROWs established across public lands *prior* to the passage of FLPMA would be recognized as a valid use.

Realty-related unauthorized use of BLM-administered lands would be abated by preventing, detecting, and resolving such uses. Once trespass liabilities are settled, unauthorized use of public lands would be resolved through termination, authorization, sale, or exchange. BLM lands affected by unauthorized uses would be rehabilitated as needed.

No additional area would be classified as agricultural land—or opened to agricultural entry or leasing—throughout the management area.

Utility corridors included in the Western Regional Corridor Study (WRCS) and the Tuscarora Pipeline Empire Lateral (within the ELFO) will be available for right-of-way development, unless environmental analysis reveals the likelihood of significant adverse impacts on other resources. In the WRCS, the Alturas transmission line route (along Highway 395) was found to be the most appropriate and likely site for future ROW development, and this route will be recommended for designation. Transmission lines of 69 kV (or greater) and pipelines 10 inches in diameter (or greater) would be located within these corridors. Corridor width would be a maximum of 2,000 feet (1,000 feet on either side of centerline), unless adjacent to an exclusion area. In such a case, corridor width would be 2,000 feet opposite the special management area boundary.

Additional corridors may be designated as future needs dictate, subject to on-site environmental reviews and clearances. *The West-wide Energy Corridor Programmatic EIS* (PEIS), (2005) specifies that coordinating agencies (BLM) will designate appropriate energy corridors on federal lands in 11 western states, perform any environmental reviews required to complete corridor designation, and incorporate designated corridors into relevant agency land use plans. *The Preliminary Draft Map of Potential Energy Corridors on Federal Lands* depicts an east-west transmission corridor between northern California and northern Nevada, which will potentially be routed through the ELFO area.

This corridor, when coupled with related renewable generation development, will create markets for renewable energy between California and Nevada and will augment California’s energy supplies by

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

allowing additional energy to flow into the state at a northerly point other than the California-Oregon border. The routes indicated on the *Preliminary Draft Map* of the PEIS are very general and exact corridor locations will need to be identified by BLM to minimize any impacts to sensitive resources. BLM will complete the environmental reviews necessary to identify proposed routes within the requisite time frames outlined in the PEIS.

Other important management actions are listed below:

- Make adequate provision for vehicular access to, along, and within ROW corridors for construction, operation, maintenance, and removal of authorized facilities.
- Authorize vehicular access and use of ROW corridors by the public to the extent that such use does not interfere with their intended purpose or conflict with other portions of this PRMP.
- Site plans will be completed before new communications sites are authorized. Promote the use of alternative energy sources where no electric power exists.
- As needed, establish additional communication sites on Antelope, Shaffer, and Grasshopper Mountains. In reference to this:
  1. Develop plans for each site (and update when necessary).
  2. Designate ROWs for each location.
  3. Define site boundaries, require cadastral surveys, and develop a map showing the location of each facility and its legal access. Facilities must be located within designated sites.
  4. To the extent possible, ensure maximum use of the facilities at each communication site before any new facility ROWs are authorized.
- Implement BLM Washington Office direction regarding determination of R.S. 2477 right-of-way claims.

## **2.8 Livestock Grazing**

The ELFO management area has 54 grazing allotments. These are permitted to 49 permittees whose livestock graze 987,779 acres and consume about 52,000 animal unit-months (AUMs) of forage annually. Generally, all the grazing allotments are used annually and considered active. Livestock use varies by annual forage condition and water availability. Most allotments have large blocks of public land (Cal-Neva and Willow Creek Planning Units) whereas the Honey Lake Beckwourth Planning Unit is a mixture of small parcels of public lands surrounded by private land.

### **2.8.1 Desired Future Condition**

Livestock grazing would be at a sustainable level to ensure the long-term stability and productivity of native plant communities, and to enhance wildlife habitat. Communities would be characterized by healthy, perennial herbaceous and woody vegetation which is diverse (in terms of structure and species composition), vigorous, and stable. Integrated weed management efforts would be successful in halting the spread of exotic annual grasses and noxious weeds. Areas infested with exotic annual grasses would be managed to encourage the survival and recovery of the remaining native flora, and rehabilitated where feasible.

### **2.8.2 Goal**

Provide a sustainable level of livestock forage that is consistent with achieving BLM land health standards, objectives for other resources, and multiple-use management of public lands.

### **2.8.3 Objectives**

Continue to modify and adjust grazing management within individual grazing allotments to ensure that a vigorous plant community is sustained in combination with livestock grazing. Adjustments would be prioritized for allotments or areas where plant communities are at risk or have greater potential for improving before they become degraded and less productive. Adjustments may involve:

- developing an improved grazing strategy as implemented through an allotment management plan (AMP), or
- adjusting the season of use with associated actions to improve livestock distribution (fences, water) in allotments without formal management plans.

Work cooperatively with ranchers and other stakeholders to implement treatments to reduce juniper encroachment in sagebrush/grassland communities, with the goal of restoring sagebrush communities to a healthy condition, and thereby maintaining (or potentially increasing) forage production of native grasses, forbs, and shrubs.

### **2.8.4 Legislative, Regulatory, and Policy Direction**

- The Federal Land Policy and Management Act (1976)
- Public Rangelands Improvement Act (1978)
- Approved Northeastern California and Northwestern Nevada Standards and Guidelines for Livestock Grazing (S&Gs) (July, 2000)
- BLM-California Manual 1745 Supplement (Native Plant Materials Policy)
- 43 CFR 4100 (Grazing Administration) and 4180 (Rangeland Health Standards) (1995)

- The Taylor Grazing Act (1934)

### **2.8.5 Proposed Management Actions**

About 98% of the management area (987,779 acres) will be available to livestock grazing and about 34,998 acres will be unavailable. Permits will be issued for approximately 52,250 AUMs, subject to seasonal variation. About 10,000 cattle would consume 47,459 AUMs and 4,000 to 6,000 sheep would consume 4,791 AUMs. Approximately 75% to 90% of these AUMs would be used annually. Review of existing permitted use levels (AUMs) would be conducted on individual allotments through assessment of existing activity plans (AMPs or their functional equivalents, livestock grazing decisions, habitat management plans, watershed management plans, biological opinions, multiple-use decisions). Decisions regarding adjustments to existing levels of use, forage allocation, allotment boundaries, and changes to management level categories would be made at the activity plan level. Changes to class of livestock authorized and future suitability of existing allotments for grazing would also be made at the activity plan level. This would be done when plan assessments reveal changes are necessary and compatible with the PRMP and activity plan goals and objectives.

Allotments would continue to be assigned to one of three planning units (Cal-Neva, Willow Creek, and Honey Lake-Beckwourth) that function as administrative boundaries and management units. Grazing allotment boundaries are shown on Maps GRAZ-1, “Livestock Grazing Allotments by Planning Unit (North and South)” (one map each for the north and south field office areas). Appendix J. “Livestock Grazing Allotments” lists each allotment by name and number, size, livestock numbers, AUMs, and management category. A few scattered and isolated parcels of public land are not currently identified for livestock grazing; however, some may be allocated in future if they meet criteria (using site-specific environmental assessments) to determine whether short- or long-term grazing would be compatible with achieving land health standards in a reasonable period of time.

The use of selective allotment management categories (i.e., “improve” [I], “maintain” [M], and “custodial” [C]) will be continued. Grazing allotments will be periodically evaluated and updated as needed to refine and prioritize grazing management actions. Grazing activities would comply with the Northeastern California and Northwestern Nevada Standards and Guidelines for Livestock Grazing. Management focus since 2000 has been on meeting land health standards through development of grazing systems that allow vegetation to receive periodic rest, shortened periods of use, use deferment, and varied seasonal use; 75 to 85% of the total grazed acres within the Eagle Lake planning area (48% of currently-grazed allotments) will continue to be managed to receive periodic rest or deferment from livestock grazing annually.

The proposed management actions emphasize making adjustments and enhancements to existing grazing strategies in allotments that have made significant progress toward, or achieved, land health standards. These adjustments would be focused on improving the health, vigor, and reproduction of native rangelands and unique plant communities (aspen, mountain mahogany, bitterbrush, California black oak), and improving important wildlife habitat for identified species (e.g., sage-grouse, ungulates). In allotments where significant progress has not been made, grazing practices would be altered so that land health standards are achievable. Grazing strategies would be refined as needed, with more intensive management focused on areas with moderate departure from land health standards or those areas “at risk.” Experience has shown that intervention at this stage (before damage is severe or widespread) has the greatest chance of success, as well as being relatively rapid and cost-effective, because most, or many, key components of land health are still present. This is especially true in riparian and wetland habitats, which are resilient and tend to recover quickly.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

Typical modifications to grazing strategies are listed below.

- Season-of-use adjustments would be employed at times of the year when sensitive soils would be damaged by livestock and where forage is seasonally inadequate.
- Permitted grazing use—including reduction of animal numbers and/or season-of-use—would be assessed annually to reflect prevailing conditions. Conservative management of grazing would be especially needful during drought conditions, when there would not be enough water to support livestock for an entire grazing season.
- Conversely, AUMs or livestock numbers may be temporarily increased or season-of-use extended, when forage production is above average. Long-term or permanent increases in grazing would be considered where land health standards have been met—or sustained, significant progress has been made—toward achieving those standards. However, increases must be based on a site-specific environmental assessment that confirms adequate and sustainable long-term forage production.

Utilization of key species (grasses, forbs, and shrubs) on native rangelands would not exceed moderate (40%-60%) levels. On allotments not meeting or making progress toward meeting land health standards due to current levels of livestock forage utilization, Guideline 16 of the Standards and Guidelines for Livestock Grazing would be implemented. This would reduce the maximum allowable utilization levels on key species specifically in areas that are not meeting standards.

Rangeland improvements would be implemented through a variety of methods used in combination on a site-specific basis. These would include prescribed fire, mechanical treatments, biological treatments, chemical agents, seeding with native perennials, maintaining seeded areas, modifying or changing grazing practices, developing and/or maintaining watering facilities (e.g., wells, spring developments, catchments, and new technology for pumping water [solar and wind power]), and new and reconditioned fencing (built to BLM wildlife specifications). Between 60 and 80 miles of new or rebuilt fencing would be built over a 20-year period, if deemed necessary to facilitate other improvements. Old fences that are not compatible with current fence standards would be modified to meet BLM wildlife specifications after BLM determines that they need to be rebuilt.

When water sources are developed for livestock grazing, the needs of wildlife and wild horses would also be considered. Water would be retained or provided at ground level on all naturally-occurring sources developed for livestock use—including springs, seeps, and perennial or ephemeral streams. Natural riparian habitat and cover around a substantial portion of these sources would be protected for wildlife use. This would be accomplished by piping livestock water a sufficient distance to minimize livestock impact or by enclosure fencing. As funding and technology allow, existing water sources developed from wells or pipelines would be retrofitted (on a priority basis) to provide water at ground level.

Twelve livestock exclosures (totaling 2,200 acres) would be maintained. Prescribed grazing may be allowed within exclosed areas, if required to maintain the vigor and diversity of the vegetation or if prescriptive grazing is compatible with resource objectives for the fenced areas. BLM would consider expanding the size of currently protected riparian areas and would protect additional areas where this is advisable (i.e., where unfenced seeps, springs, creeks, and other riparian/wetland habitats are not meeting land health standards). New or modified fencing (built to BLM wildlife specifications), and intensive (time-controlled) management of grazing, would be used to accelerate recovery. Decisions would be based on site-specific environmental assessments and identified needs.

Meadows, aspen stands, and other habitats with significant value as wildlife habitat (particularly sage-grouse) and NRHP-quality archaeological sites would receive priority for additional livestock exclusion. When fencing natural water sources, water would be made available for livestock, wildlife, and wild horses outside the fenced area. Livestock salting would not be allowed within ¼ mile of springs,

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

meadows, archaeological sites, streams, and aspen areas. Location of salting stations would be determined by BLM in consultation with livestock permittees.

The PRMP for vegetation management is to prioritize vegetation manipulation to restore ecosystem processes. Efforts would focus on reducing invasive juniper in sagebrush-steppe ecosystems, and treating closed-canopy big sagebrush and cheatgrass-dominated communities. Juniper reduction efforts will be prioritized within grazing allotments to improve the ecological health of sagebrush communities, at a rate of up to 10,000 acres per year (see Chapter 2.6 Fuels Management). Treatment will focus on more degraded rangeland (primarily the 21%–35% juniper canopy cover class). Successful treatment of these areas would significantly improve land health and will also provide maintenance of (or potentially an increase of) forage production of native grasses, forbs, and shrubs. Areas burned by wild or prescribed fire would be rested from livestock grazing for a minimum of two growing seasons. Decisions to re-open burned areas to grazing would be based on monitoring and assessment. Areas may be re-opened in less than two growing seasons only if such use can be shown to meet resource management objectives of the fire recovery plan specific to that site.

Quaking aspen, California black oak, and buffaloberry are unique plant communities that occur randomly throughout the field office area in small patches. These plants are susceptible to livestock and wildlife grazing at a young age, when they are succulent and palatable. In order to protect these communities and ensure reproduction, they require only moderate grazing from both livestock and wildlife. These sites would be managed primarily by controlling the timing and season of use by livestock. If existing management is not meeting recovery objectives, site specific areas of these communities may be fenced from both livestock and wildlife until they reach a mature size (generally 4 feet in height).

Other unique plant communities consist of bitterbrush, serviceberry, and mountain mahogany. These are extremely important plants for ungulate winter forage. These plants require a two-year growth for seed production, and more than moderate browsing can damage reproductive success. Site-specific areas of these communities may be fenced from both livestock and wildlife for two years (or longer as specified) to ensure seed production. Other areas will be managed by controlling the grazing periods and season of use by livestock.

Currently seeded areas (3,000 to 4,000 acres) will be monitored and new seeding considered, if required (e.g., post-fire recovery or sites where perennial plants survive, but not in sufficient density to achieve desired future conditions). By preference, native perennials would be used for seeding. However, crested wheatgrass (and other non-native plants) would be considered for rehabilitation of sites where non-native plants were used in the past. Selective areas with land health assessment ratings of ‘At Risk’ or ‘Unhealthy’ would be treated through reseeding and other methods to work towards restoring the plant community. In order for these planting efforts to be successful, the new seedlings must be rested from grazing until the new plants can withstand grazing pressure. BLM would comply with policies set forth in California BLM Supplemental Manual 1745 and Handbook 1745-1, Use of Native Plant Materials in California.

Livestock grazing practices would be modified in selected allotments to improve sage-grouse habitat, based on guidelines set forth in Appendix H. “RMP Alternatives Necessary to Ensure Compliance with the Conservation Strategy for Sage-Grouse and Sagebrush Ecosystems within the Buffalo-Skedaddle Population Management Unit”.

These guidelines would be used to set goals and objectives for maintaining or restoring sage-grouse habitat elements at specific sites within allotments, and would not be used as threshold criteria for livestock management. These guidelines include:

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- In areas where annual non-native grass species have invaded a site but the site has not crossed a threshold (R-4 to X-4) appropriate conservation actions will include the following:
  - Adjust grazing levels; increase the length of rest, and other measures to allow existing perennial grasses and forbs to compete with annual species.
- Manage grazing to the benefit of sage-grouse nesting habitat:
  - Maintain 7 inches of residual grass height within the dripline of sagebrush in nesting habitat.
- Maintain safe flyways for sage-grouse into leks:
  - Do not construct new fences or move existing fences to within 1.6 kilometers (1 mile) of a lek, or
  - If fence construction cannot be avoided within the lek's buffer zone, the fence will consist of "let-down" panels which are let down during the strutting season. Site specific "let-down" areas will be determined by the ELFO resource staff, on a site-specific basis.
  - All braces, gateposts, or wooden posts used for fencing are required to have anti-perch structures, as determined by the ELFO resource staff, on a site-specific basis.

## 2.9 Recreation and Visitor Services

This section provides a general overview of recreation. It deals with matters such as special recreation permits, camping, and other activities (for which fees may be assessed), interpretive displays, recreation access, hunting and fishing. Most management actions are concerned with SRMAs and extensive recreation management areas (ERMAs). The recreation program for the ELFO utilizes the recreation opportunity spectrum (ROS) and also concerns itself with VRM and travel management (i.e., roads, trails, and off-highway vehicle [OHV] travel designations). However, these subjects are complex; therefore, they are discussed individually, under their own sections. Although recreation-related, special area designations such as WSAs, ACECs, WSRs, and historic trails are also discussed separately, again, due to their complexity.

### 2.9.1 Desired Future Condition

Special recreation management areas would be maintained or created where popular and/or unique resources are concentrated and visitor use and impacts are high, thus requiring more intensive management. The rest of the management area would require and receive relatively less attention. It would be managed for dispersed recreation as an extensive recreation management area.

Visitors would experience little difficulty in locating or using information about public lands provided to the public by BLM. BLM staff would be courteous, well-informed, and helpful in dealing with the public regarding use of BLM-administered lands. Interpretive displays/exhibits, brochures, broadcast media and the internet would facilitate public use, appreciation, and enjoyment of natural and cultural resources. Brochures would be distributed through “gateway communities,” visitor centers, and BLM offices. A BLM interpretive management plan would focus on producing high-quality interpreted exhibits in suitable locations.

### 2.9.2 Goal

Provide and enhance public recreational opportunities, of a developed and undeveloped nature. Ensure that quality customer service is provided, resources are protected, and user conflicts minimized.

### 2.9.3 Objectives

Manage public lands for the following purposes:

- Focus management attention on SRMAs. Greater management attention and investment in facilities is warranted in these areas due to high visitor use, resource-protection issues, user conflicts, and health and safety concerns.
- Land not falling within SRMAs would be managed for dispersed, self-sufficient recreation as part of the ERMA. Facilities would be minimal; developed only to facilitate management objectives for land health and customer service (e.g., resource protection, impact mitigation, interpretive signing, and health and safety information).
- Solicit donations and encourage volunteer projects and programs in an effort to increase revenue, promote effective resource management, and improve customer service.
- Provide a full range of recreational experiences emphasizing self-sufficient exploration and recreation based on the recreation opportunity spectrum, including:
  - Primitive, non-motorized recreational experiences with minimal (or no) facilities and management presence.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Vehicle-based recreational experiences with directional signing and visitor information.
- Camping and day-use experiences with visitor facilities and services appropriate for the level of use and degree of site development.
- Provide legal public access to and through BLM-administered lands with recreational value. Encourage (or require where appropriate) use of existing roads and trails.
- Encourage high-quality recreational travel on roads and trails that connect population centers with activity areas. Most should be return routes (i.e., circular or “looped” routes) and would include directional signing, as well as visitor and interpretive information (where appropriate).
- Interpretive information should deal with public land resources and BLM management programs. Information should enhance visitor awareness, understanding, and appreciation of public land resources.

### 2.9.4 Legislative, Regulatory, and Policy Direction

- Federal Land Policy and Management Act (43 U.S.C. 1701-1782) (1976)
- Land and Water Conservation Fund Act, as amended (16 U.S.C. 4601-4) (1964)
- Antiquities Act (16 U.S.C. 433) (1906)

### 2.9.5 Proposed Management Actions

#### Special Recreation Permits (SRPs)

- Issue SRPs for commercial, competitive, and group events. Activities allowed under permit are subject to the requirements of BLM Special Recreation Permit Manual 2930. Activities must also comply with NEPA, as well as land-use and visitor management objectives.
- Deny SRPs for activities where adverse impacts could not be mitigated by the applicant or would conflict with recreation or resource management objectives.

#### Facility Fees

- Charge fees commensurate with the level of facility development and service provided (or required) at recreation sites and special-use areas.
- Develop new means of generating revenue from heavily used recreation areas, in order to defray operation and maintenance costs.
- Investigate ways to encourage use and increase revenue from developed facilities that are little-used; or consider closing them to save operating costs.

#### Camping

- Provide opportunities for self-contained camping consistent with the philosophy of self-sufficient exploration and recreation.
- Regularly maintain developed recreational facilities where steady use and public support justifies continued expenditure.
- Use suitable evaluation techniques, including BLM’s land health standards and “limits of acceptable change,” when contemplating closure or relocation of camping areas due to adverse impacts on resources or user conflicts.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Eliminate dispersed camping and require use of (designated) primitive camping areas, where proliferation of casual-use campsites has caused significant resource damage. Typical adverse impacts include multiple fire-rings, excessive charcoal and litter, soil compaction, destruction of vegetation, accumulation of human waste, and displacement or excessive disturbance of wildlife.
- Use public education and environmental awareness programs (e.g., “leave no trace” and “tread lightly”) to reduce adverse impacts from thoughtless or destructive camping practices.

### Campsite Accessibility

- Provide camping opportunities accessible to disabled visitors at all developed campgrounds in compliance with federal laws.
- Modify existing day-use facilities to facilitate use by disabled visitors.
- When developing new campgrounds or other recreation sites, provide disabled visitors with *adequate* access to facilities, not just the minimum required by law.

### Time Limits for Camping

Eliminate long-term occupancy problems (under the guise of camping) by enforcing the following limits. Camping would be allowed for a maximum of 14 consecutive days per campsite for any one location and 28 days in total per calendar year, unless authorized by BLM. Campers who have occupied a site for the 14-day limit, and wish to continue camping within the bounds of the management area, must move to a new location where they may camp for an additional 14 days. Where problems of occupancy trespass occur under the guise of camping, the authorized officer may specify additional requirements including how far campers are required to move between camping sites before beginning an additional 14 camping period (43 CFR 8365.1-2 and 8365.1-6).

### Distance-from-Water Requirements for Camping

- Inform campers of CDFG and Nevada Department of Wildlife (NDOW) regulations that prohibit camping close to small bodies of water. Regulations are designed to ensure that human presence and activities will not deny water to wildlife.
- Protect water quality by prohibiting camping within 200 feet of creeks, rivers, lakes, and reservoirs, unless an exception is posted at the use area.
- Prohibit camping within 600 feet of wildlife “guzzlers.”
- Prohibit camping within ¼ mile of the following Lassen County wells: Butte, Shaffer, Tableland, Table Mountain, and Belfast.
- If shoreline camping adjacent to reservoirs or stream corridors causes resource damage that cannot be mitigated, the area would be closed to camping. Campsites would be moved to locations that can tolerate intensive use.

### Camping Information

- Provide maps that clearly identify routes of travel and the location of camping areas. Ensure that maps clearly identify campsite locations and adequately explain camping regulations for primitive and developed campsites.

### **Hunting and Shooting Sports**

- Manage most of the planning area for hunting and shooting opportunities under California or Nevada hunting regulations. Enforce standard CFR shooting restrictions at developed recreation sites to ensure public safety.
- Where necessary to assure public safety or protect natural resources, prohibit shooting with any kind of firearm, missile, or projectile in areas that are undeveloped but subject to concentrated recreational use.
- Close recreation areas to “paintball” shooting in order to protect resources and facilities. Paintball enthusiasts would be redirected to areas where the activity would not conflict with other recreationists or other resource uses.
- Resolve safety issues related to target shooting in the OHV recreation area at the mouth of Rice Canyon, in the old borrow pit and riding trails west of Rice Canyon Road (T30N R13E), and in portions of Sections 28, 29, 32, and 33.
- Manage Antelope Pit (west of Highway 139 and 7 miles north of Susanville) for (continued) public use as a target shooting area. This would include the following measures:
  - Implement certain actions to improve safe use of the pit by shooters.
  - Work with local shooters to keep the pit safe and clear of target debris.
  - Request that the California Department of Transportation (Caltrans) take a more active role in managing the portion of the pit within its ROW (or ask Caltrans to relinquish [to BLM] the portion of its ROW no longer needed to maintain Highway 139).
- Close the rim-to-rim area of the Susan River Canyon (between the Susanville city limit and Highway 36 at Devil’s Corral) to shooting of firearms and projectiles to assure safety in this high-use recreation area.
- Close the area of public land for 300 feet on each side of the center line of the Bizz Johnson Trail (from Highway 36 at Devil’s Corral west to the Lassen NF boundary on the west side of Bunnell Ranch [T29N R10E Section 1]) to shooting of firearms and projectiles to ensure safety in this recreation area.

### **Public Access for Recreation on Public Lands**

- Acquire legal public access through private lands for access to public lands for recreation and other public benefits. If attempts to acquire public access are unsuccessful, create alternative access (where justified and feasible).
- Acquire (from willing sellers) lands that would enhance public recreation and help fulfill recreation management objectives.

### **Site Interpretation**

- Develop an interpretive plan that ensures presentation of high-quality information and enhances understanding, enjoyment, and appreciation of public lands.
- Focus interpretation on resources that are unique to or characteristic of the management area:
  - Natural history
  - Historic structures, trails, and railroads

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Prehistory and prehistoric sites
- Major geological regions and features (e.g., the Great Basin, Sierra Nevada, Cascade Range, and the Modoc Plateau)
- High-desert rivers (e.g., the Susan River, Willow Creek, and Smoke Creek)
- Unique or important animals and plants
- Wild horses and burros
- Develop new materials for each SRMA. Update maps and brochures that inform visitors about recreational resources and activities. Keep them abreast of current regulations and restrictions.
- Develop interpretive information for scenic driving routes (i.e., scenic and backcountry byways).
- Conduct environmental education programs in cooperation with local schools. Emphasize understanding and appreciation for natural and cultural resources and the role of BLM in public land management.

### 2.9.6 Special Recreation Management Areas

Manage the three existing SRMAs (Eagle Lake Basin, Bizz Johnson Trail, and Fort Sage) under existing activity-level management plans (see Table 2.9-1). These plans may require revision to respond to changing recreational use patterns and land management issues. Designate two new SRMAs to be called the Antelope/ Shaffer/Bald Mountain SRMA (61,764 acres) and the South Dry Valley SRMA (46,813 acres). See Map REC-1 for the location of all proposed SRMAs. The new SRMAs will enable better management of current uses and provide a management framework for developing and maintaining additional trails and for managing other recreational uses as determined appropriate in each new SRMA activity level plan to be developed following completion of this PRMP.

**Table 2.9-1** Proposed Special Recreation Management Areas

Special Recreation Management Area	Size (acres)
Eagle Lake Basin	34,320
Bizz Johnson Trail	2,756
Fort Sage	28,494
Antelope/Shaffer/Bald Mountain	61,764
South Dry Valley	46,813
<b>Total</b>	<b>174,147</b>

#### 2.9.6.1 Proposed Management Actions - Bizz Johnson Trail SRMA

The management strategy of the existing plan (which dates from 1983 and covers 2,756 acres) is designed to serve local residents and the destination tourism market. The tourism market includes weekend visitors (defined by a driving distance of one to six hours, one-way) and those who make the trip from longer distances.

The SRMA has five primary management zones that serve the following recreational niches:

- **Bizz Johnson Trail:** non-motorized uses (e.g., pedestrian, mountain-biking, equestrian, cross-country skiing, snowshoeing, and access to the Susan River)
- **Susan River:** fishing, swimming and wading, “tubing,” kayaking

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- **Hobo Camp Day Use Area and Trailhead:** picnicking, group gatherings, environmental education, trail staging area
- **Susanville Trailhead, Caboose, and Depot:** This is a staging area for trail-related activities and events. There is also a visitor center with trail-oriented and regional (northeastern California and northwestern Nevada) interpretive and recreational information. It is privately owned and operated, in partnership with BLM.
- **Devil's Corral Trailhead:** staging area for trail and river activities, restroom and picnic stop for highway travelers

Secondary (less-used) management zones, and their recreational niches, are:

- **South Side Trail:** pedestrian, equestrian, and mountain-biking
- **Pigeon Cliffs:** rock climbing and sightseeing
- Manage the Susan River, its Canyon, and the Bizz Johnson Trail to maintain and enhance high scenic quality and an undeveloped natural character (i.e., VRM Class II criteria, except at trailheads where Class III criteria apply [to permit trailhead facilities]).
- Use the ROS to plan and provide a suitable range of recreational experiences. Permit special events if they conform to management objectives and meet the requirements of BLM Special Recreation Permit Manual 2930.
- Provide visitors with suitable, interesting, and factual interpretation of natural and cultural resources. Provide opportunities (for school groups and others) to use the trail and canyon for environmental education.
- Continue to acquire (from willing sellers) remaining private lands in the Susan River Canyon in order to improve river access, access along South Side Trail and preserve the canyon's undeveloped character.
- Designate a "no shooting area" on public land within the rim to rim confines of the Susan River Canyon between Susanville and Highway 36 at Devil's Corral, and on public land within 300 feet of each side the center line of the Bizz Johnson Trail from Highway 36 west to the Lassen National Forest boundary (T29N R10E, Section 1), for public safety reasons (refer to the hunting and shooting sports section).
- Prohibit "paintball" shooting to preserve the appearance of natural features and discourage vandalism of facilities.
- Close most of the area to livestock grazing. Permit grazing on a small part of the public lands located far from the Susan River and behind livestock enclosures (fences). Such grazing would only be authorized if grazing occurred in conjunction with grazing authorized on adjacent private lands and if such grazing could meet BLM Land Health Standards.
- The *entire* Bizz Johnson Trail SRMA (2,756 acres) would be 'Closed' to locatable and salable mineral development and NSO restrictions would apply for leasable minerals. A mineral withdrawal would apply to the entire 2,756 acres for locatable and salable minerals.
- Close the Bizz Johnson Trail to snowmobile travel except for emergency and administrative use. Allow snowmobiles to use the Bizz Johnson Trail to cross the Susan River at the river-crossing west of Devil's Corral trailhead on the old highway bridge.

**Bizz Johnson Trail Recreation Management Zone**

- Manage the Bizz Johnson Trail to provide opportunities for multiple non-motorized trail uses: walking, dog walking, running, mountain biking, horseback riding, cross-country skiing, and snowshoeing if the type and amount of uses do not conflict.
- Separate incompatible, non-motorized activities where conflicts or hazards are created. Where this is evident, designate an alternative trail—on the south side of the Susan River—to permit use of the canyon by those whose recreational pursuit is not compatible with other non-motorized activities on the heavily used segment near Susanville.
- Establish the South Side Trail by linking existing old dirt roads south of the river with new trail segments. This new trail in the Susan River Canyon would serve as an alternative to the Bizz Johnson Trail. Together, the two trails would provide a looped trail experience for all nonmotorized users and provide connections to the Bizz Johnson Trail at Hobo Camp at the railroad bridge east of Cady Springs, and in the Devil’s Corral area.
- Relocate equestrian use from the Bizz Johnson Trail to the South Side Trail if equestrian use causes the Bizz Johnson Trail surface to become too soft for walking, running, or cycling, or use by the disabled.
- Allow the disabled to use quiet, low-speed motorized wheelchairs (or other similar conveyance designed for their use). Limit other motorized use to maintenance and emergency vehicles.

**Susan River Recreation Management Zone**

- Provide river access for suitable activities along the Susan River corridor (e.g., fishing, swimming, floating, kayaking, riverside picnics, and short-term camping).
- Develop convenient and readily accessible riverfront fishing areas for the disabled.
- Maintain and safeguard trails and bridges using natural stream bank stabilization measures wherever feasible and non-intrusive, visually appealing structures where necessary.
- Remove man-made objects that pose a safety hazard to recreational use of the river.

**Susanville Trailhead and Depot Visitor Center**

- Continue the partnership with Lassen Land and Trails Trust and their designated operator of the Susanville Railroad Depot. Support their efforts in operating the facility as a visitor center for the ELFO management area and primary trailhead for the Bizz Johnson Trail.
- Continue to develop, provide, and present high-quality brochures, exhibits, and programs at the visitor center. Focus on natural history and the trail’s railroad and logging past.
- Maintain the caboose and first quarter-mile of railroad track (owned by BLM) as interpretive features to demonstrate and reinforce the trail’s railroad heritage.
- Continue to issue special recreation permits for events involving the tracks and caboose when the event supports trail management objectives.

**Hobo Camp Trailhead and Picnic Area Recreation Management Zone**

- Maintain the picnic area for casual and group use.

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

- Maintain as a day-use area; however, overnight stay may be authorized for special events. Maintain a (full hook-up) site for volunteer hosts involved with camp or trail maintenance.
- Develop other host campsites when and where needed to support operation of the Susanville Depot Visitor Center or Bizz Johnson Trail.
- Expand the lower and mid-level parking areas.
- Build a pedestrian-only trail linking the upper parking lot to the picnic area. Build a similar trail linking the upper parking lot to the South Side Trail.
- Extend potable water lines to central locations between picnic sites.

### **Devil's Corral Recreation Management Zone**

- Provide a parking area that is convenient to the trailhead and also provides river access, visitor information, and pleasant surroundings for picnicking.
- Maintain as a day-use area, but overnight authorization may be allowed for special events. Prohibit "paintball" shooting.

### **Pigeon Cliffs Recreation Management Zone**

- Provide safe routes to the top and bottom of cliff faces for rock climbing and rescue work.
- Coordinate with Caltrans to reduce the size of signs above Hobo Camp and Pigeon Cliffs. Provide minimally intrusive locations for these signs (so that they are not readily visible from the Susan River Canyon in the Hobo Camp area or from the first two miles of the Bizz Johnson Trail or from the Susan River, as one travels west from Susanville).
- Build a trail to improve safety for climbers (and others) descending from the top of the cliffs.
- Link the base of the cliffs to Hobo Camp and the Bizz Johnson Trail by building a trail downstream, along the base of the cliff and down slope to the east to the Bizz Johnson Trail.

### **South Side Trail Recreation Management Zone**

- Develop the South Side Trail (for non-motorized use) by linking five miles of old dirt roads with two miles of new single-track trail. Join the new trail with the Bizz Johnson to form a return-trail system (loop trail). Provide side-trails to Hobo Camp, Devil's Corral, and the fourth railroad bridge west of Susanville (just east of Caddy Springs).
- Close the Bizz Johnson Trail to horseback riding if necessary to reduce adverse impacts and user conflicts. Under these conditions, redirect equestrian use to the South Side Trail.

#### **2.9.6.2 Proposed Management Actions - Eagle Lake Basin SRMA**

The management strategy of the existing plan (which dates from 1991) is designed to serve Lassen County residents and the destination tourism market (some of whom travel as much as eight hours one-way to camp at the Lake). Most recreation involves day-use activities or camping. BLM management actions serve both groups.

The Eagle Lake Basin SRMA has four primary management zones designed to serve the following recreational niches:

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- **North Eagle Lake Campground:** Developed camp facilities include leveled sites, fireplaces with grills, picnic tables, potable water, and vault toilets.
- **Primitive Drive-In Shoreline Areas:** These include the Highway 139 corridor, Rocky Point, and Tunnel Beach. Activities include fishing (from shoreline and from small to medium-sized motorboats), camping (tent and recreational vehicle), picnicking, wildlife-viewing, windsurfing, sailing, and power-boating.
- **Primitive Undeveloped Shoreline Areas:** These include non-motorized sections of Rocky Point, Buck Point, Troxel Point, Little Troxel Point, Black Mountain shoreline, and public lands northeast of the Lassen County Youth Camp. Activities include fishing, camping, and wildlife-viewing.
- **Uplands Away from the Lakeshore:** Activities include wood-cutting, deer hunting, and sightseeing.

Proposed management actions include:

- The Eagle Lake Basin SRMA (34,320 acres) would be ‘Closed’ to leasable mineral development (to protect the subsurface hydrology of this closed basin) and restrictive stipulations would apply to locatable and salable mineral development.
- Manage according to VRM Class II criteria (i.e., ensure that management actions do not significantly alter the natural appearance and undeveloped character of the landscape).
- Ensure that water quality is adequate for aquatic and terrestrial wildlife and meets BLM land health standards.
- Acquire undeveloped property (from willing sellers) to retain the area’s open condition and unaltered natural character. Work with Lassen National Forest and congressional staffers to transfer isolated parcels of Forest Service land to BLM control where they adjoin large areas of BLM-administered land.
- Maintain the livestock grazing closure on (BLM) shorelines used for camping, fishing, picnicking, and swimming.
- Adopt the OHV designations specified in the “Travel Management” section of this plan. OHVs would be limited to designated roads and trails as well as to designated shoreline access points. All other areas would be limited to walk-in or boat access.
- Prohibit “paintball” shooting on public lands where paint marks would be visible from the shoreline or from other areas where recreation is concentrated—regardless of whether the area is or is not developed.
- Develop trails with non-motorized travel designations that pass through varied terrain and provide wildlife-viewing opportunities and scenic vistas of undeveloped, open lands.
- Work with Lassen National Forest to develop high-quality visitor maps and brochures that focus on the natural and cultural history of the Eagle Lake Basin and area regulations.
- Provide OHV riding and driving opportunities on the existing network of primitive roads.
- Work with Caltrans to provide plowed, pull-off areas for winter sports parking near Heavy Mountain and the Fredonyer Lookout Road (both adjacent to Highway 139).

### **North Eagle Lake Campground**

- Continue to manage campground to provide semi-primitive campsites, centralized potable water, an on-site host [when available] and replace current toilets with accessible toilets that meet current accessibility standards.
- Charge fees comparable to those levied elsewhere at similar sites.

### **Highway 139 Corridor and Eagle Lake Shoreline**

- Designate pull-off areas for small-boat launching and parking for fishing and swimming.
- Prohibit motor vehicles where shorelines have well-established vegetation (i.e., vegetation that provides forage and cover for wildlife).
- Require campers to use “leave-no-trace” practices (e.g., pack out trash and dispose of soapy water and human waste in portable toilets, use permanent toilets [where provided], or [in reference to recreational vehicles (RVs)] dispose of waste at RV dump stations).
- Monitor camping practices along the Highway 139 corridor. If water-quality cannot be maintained to BLM standards, limit recreation to day-use activities and redirect campers to alternative areas.
- If shoreline camping along the highway must be closed due to impacts from campers that cannot be mitigated, develop a campground east of the highway to accommodate displaced shoreline campers.
- Acquire parcels of private land (from willing sellers), or legal public access through private lands, along the Merrillville-Beiber Wagon Road.
- Develop wildlife-viewing signage along the highway.
- At suitable locations along the highway, develop convenient and readily accessible fishing areas that remain usable with fluctuating water levels for disabled visitors.
- Provide interpretation signage of prehistoric and historic features along the Highway 139 corridor.

### **Rocky Point Recreation Management Zone**

- Focus management on self-contained camping, fishing, and water sports.
- Use traffic speed reduction features and speed limits on the access road.
- Establish and enforce evening quiet-time regulations, especially for the camping areas.
- Manage the east and west sides of Rocky Point for primitive, self-contained camping—providing BLM water-quality standards can be maintained.
- Campers must use “leave-no-trace” practices (e.g., pack out trash and dispose of soapy water and human waste in portable toilets, use permanent toilets [where provided], or [in reference to RVs] dispose of waste at RV dump stations).
- Monitor camping practices using BLM staff and volunteers.
- If “clean-camp” practices and water-quality cannot be maintained to BLM standards, limit recreation to day-use activities and redirect campers to alternative areas.
- Install toilets that meet disability standards (where lacking).
- Develop convenient and readily accessible fishing areas for disabled visitors that are usable throughout the fishing season.

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

- Provide campground host sites with full amenities to encourage campground hosts to stay throughout the normal season-of-use.
- Improve and maintain—or realign—the east-side access road to reduce water-quality issues, facilitate toilet servicing, and improve low-speed public access to the shoreline and camping area. (The rough access road currently limits the amount of camping use and potential adverse impacts, but also makes the camping area inaccessible to many would-be users.)

### **Tunnel Beach Recreation Management Zone**

- If possible, acquire public access to the Tunnel Beach shoreline—or acquire Tunnel Beach—for land and boat-based recreation.
- Manage public lands in the Tunnel Beach Recreation Management Zone for primitive self-contained camping.

### **Primitive Undeveloped Shoreline Areas**

- Allow walk-in and boat-accessed camping along shorelines that are inaccessible to vehicles.
- Promote “leave-no-trace” camping practices.
- Monitor walk-in and boat-accessed camping if this use becomes popular. With a substantial increase in camping, portable toilets (or other suitable toilets installed by BLM) may be necessary to maintain water quality standards.
- Continue efforts to acquire public access to Buck Point.

### **Stone Ranch Management Zone**

- Uphold the Stone Ranch conservation easement to improve and maintain public pedestrian access from Highway 139.
- Seek ways to create a trail with a designation allowing non-motorized uses through the Stone Ranch conservation easement in order to link public lands along Highway 139 (i.e., the Merrillville-Beiber Wagon Road) with other public lands lying south and west of the ranch.
- Complete the annual monitoring requirements for the conservation easement.

### **Uplands Away from the Shoreline**

- Focus on providing public access for hunting, woodcutting, vehicle-based sightseeing, and recreational driving and riding (trucks and other high clearance vehicles, motorcycles, and all-terrain vehicles [ATVs]) using the existing network of dirt roads.
- Authorize off-road travel for woodcutting purposes only as allowed under the woodcutting permit.
- Provide trails with non-motorized designations that connect campgrounds with shorelines. Favor trail alignments with scenic vistas and wildlife-viewing opportunities. Promote return-trail routes (loop routes) for hiking, mountain-biking, and horseback riding (see the non-motorized section of “Travel Management”).

### 2.9.6.3 Proposed Management Actions - Fort Sage SRMA

Manage the Fort Sage SRMA (28,494 acres) as specified in the Fort Sage environmental assessments prepared when various California OHV (Green Sticker) grants were secured and implemented by BLM in the 1980s, 1990s, and early 2000s. Recreation is either day-use (principally by residents of Lassen and Plumas Counties in California and the Reno/Sparks area of Nevada) or multi-day (primarily more distant visitors from throughout Northern California).

The most prevalent activities are recreational motorcycle and quad riding and some other types of OHV driving, horseback riding, and hiking. More distant visitors typically drive from two to eight hours (one-way), camp at the Fort Sage OHV area, and spend at least two days and nights driving, riding, or hiking. Recreation management zones are as follows:

- **Fort Sage Trailhead:** Primary activities are camping, picnicking, recreational driving (motorcycles and ATVs), horseback riding, and related special events.
  - **Fort Sage Road and Trail System (on public lands):** Primary activities are recreational riding and driving (four-wheel drive [4WD] vehicles, motorcycles, and ATVs), back-country sightseeing, horseback riding, and mountain-biking.
  - **Fort Sage Mountains:** Primary activities are hiking, horseback riding, and hunting in the roadless uplands east of Indian Springs.
  - **Widowmaker Trailhead:** This is a staging area for motorcycle events.
- Manage upland areas (above the Honey Lake Valley floor) as VRM Class II and the valley floor as Class IV.
  - Provide motorcycle and ATV areas for casual and competitive use (i.e., areas with low, moderate, and high skill-level requirements) while ensuring that soil, vegetation, and wildlife are protected.
  - Also manage the entire area for mountain-biking (on designated roads and trails), hiking, and horseback riding—not solely for motorized recreation.
  - Manage the steeper upland terrain east of the east end of Indian Spring Road for non-motorized recreation (e.g., hunting, hiking, and horseback riding).
  - Manage the entire area to provide hunting opportunities (except for one quarter-mile no-shooting [including paintball] safety zones around developed facilities and trailheads).
  - Manage the Fort Sage OHV trailhead (T26N R17E, Section 33) for day-use and primitive self-contained camping. Designate well-defined parking areas and provide visitor information, a vault toilet, picnic tables, and fire-rings.
  - Manage the Widowmaker Trailhead for special events and self-contained camping. Portable toilets must be provided, serviced, and removed by event promoters.
  - All energy and minerals development would be ‘Open’, but with restrictive stipulations to protect recreation and other resources.

### 2.9.6.4 Proposed Management Actions - Antelope/Shaffer/Bald Mountain SRMA

The proposed SRMA (61,764 acres) will be created and a recreation management plan developed to implement the goals listed below. However, the Bald Mountain portion of the (proposed) SRMA is also listed for potential disposal, but only to a California state entity – possibly CDFG, or other entity which would continue to manage the area for public use as a wildlife management area (see Maps LANDS-1). However, if this does not take place, the Bald Mountain area would be included in this SRMA.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

Initially, the primary use of this SRMA would be local, mostly Honey Lake Valley residents. As the trail system is developed, the SRMA could become a destination attraction for mountain-bikers, horseback riders, and hikers. As a destination attraction for trail users, most riding and hiking would likely occur where longer trails are proposed on Antelope and Shaffer Mountains.

The recreation management zones that would be included in this SRMA and their typical recreational activities are as follows:

- **Rice Canyon:** recreational (OHV) riding and driving, regulated rifle-range shooting, model airplane flying, and woodcutting (note: unregulated target shooting occurs elsewhere in the canyon but may be closed due to safety concerns related to recreational riding and driving)
  - **Antelope Pit:** unregulated target shooting
  - **Antelope Mountain:** hang-glider launch site and sightseeing
  - **Willow Creek Canyon:** stream fishing and hiking
  - **Belfast Petroglyphs:** petroglyph-viewing and environmental education
  - **Shaffer Mountain:** hunting (primarily chukar partridge), target shooting, recreational (OHV) riding and driving, mountain-biking, wildlife-viewing, and sightseeing
  - **Bald Mountain:** target shooting, hiking, horseback riding, and dog-walking
  - **Susanville Ranch Parcels:** hiking, mountain-biking, horseback riding, dog-walking, and cross country skiing
- Focus management on urban/rural interface areas, since these have the greatest diversity of recreational uses and will require a larger management presence.
  - Manage under VRM Class II, III or IV criteria, as appropriate for specific areas (see Chapter 2.21 VRM).
  - With regard to ROS categories; manage most areas for a backcountry-type experience intermixed with small areas of ‘Roaded Natural’ terrain (see Chapter 2.10 ROS).
  - All energy and minerals development would be ‘Open’, but with restrictive stipulations to protect recreation and other resources.
  - Prepare a management plan in collaboration with an advisory group composed of interested/concerned parties (e.g., hikers, mountain-bikers, OHV users, hunters, target shooters, equestrians, grazing permittees, and resource specialists). The advisory group would aid in setting management goals and objectives, refining boundaries, and developing an implementation plan. (Proposed boundaries could change somewhat during development of the management plan for the SRMA as resource issues are addressed.)
  - Work with Lassen County and the City of Susanville to build a system of interconnecting trails linking residential areas with public lands on the north side of the valley (as supported by the 2000 Lassen County General Plan and the 1991 Susanville General Plan).
  - Build high-quality, multiple-use trails for non-motorized recreation on Antelope Mountain, Shaffer Mountain, and Bald Mountain. Trail construction would also encompass three parcels of BLM-administered land adjacent to or nearby and north and west of Susanville Ranch. Trails on these parcels would be integrated with the existing ranch trail system. Two of these parcels that do not directly adjoin Susanville Ranch could be used for exchange of lands that better support protection of the Susanville Ranch viewshed and improve opportunities for an expanded trail system directly adjacent to the ranch.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

Although all trails would be designated for multiple, non-motorized uses, trails on Shaffer Mountain would emphasize mountain-biking, those on Bald Mountain would emphasize horseback riding, while trails on Antelope Mountain and at Susanville Ranch would have no specific emphasis and accommodate all non-motorized uses, so long as conflicts between users can be managed to provide for safe and sustainable trails. Recreational uses would be segregated only where necessary to improve user safety or preserve a quality trail experience.

Non-motorized trail management would also have to address how to deal with pressure from current OHV use on existing roads and trails and potential increased OHV use in the future that could affect non-motorized trail use.

- Use expertise garnered from national, regional, and local trail groups in the trail development process.

Actual trail alignments would differ from those shown on the conceptual map of trails proposed for non-motorized uses (see Map TRAVEL-3). Final trail alignments would be determined using an interdisciplinary approach that would meet user interests while addressing the concerns of other parties. However, the map is correct in indicating the intention of pursuing an interconnecting, return-trail scenario that joins activity areas with population centers.

### Antelope Mountain Recreation Management Zone

- Develop a hang-glider launch site on Antelope Mountain that is accessible to motor vehicles but sufficiently distant from the communication site to reduce potential for damage to the communication site by sight seers who could also be expected drive to the launch site. If feasible, develop a landing zone that is also accessible to motor vehicles.
- Develop a scenic overlook encompassing the Honey Lake Valley and Diamond Mountains in conjunction with construction of the hang-glider launch site.
- Develop a system of looped, single-tracked trails for hiking, horseback riding, and mountain-biking. Provide short, medium, and long-distance options at varying degrees of difficulty.
- When planning trail routes, enhance scenic qualities as much as possible; give special attention to areas overlooking the Honey Lake Valley and Diamond Mountains. Integrate trails with those established by Lassen County and the City of Susanville.
- Direct motorcycle and ATV traffic to trails north of Antelope Mountain. Especially discourage this activity on the mountain's south side, since residential expansion is likely here and sights and sounds of OHV use may be objected to by homeowners and others.
- Manage the Antelope Pit shooting area (located seven miles north of Susanville on the west side of Highway 139) as a safe and convenient place for target shooting.
- Work with Caltrans to resolve a ROW issue at Antelope Pit. Encourage Caltrans to assume more active management or relinquish a portion of its ROW to BLM (Caltrans would retain a minimum width necessary to maintain Highway 139).

### Rice Canyon Recreation Management Zone

- Manage OHV recreation in the Rice Canyon area to limit this activity to the gravel pit next to the south end of Rice Canyon Road' west side where the roads enters BLM land, trails within one half mile of this pit, and the adjacent hill-climb site. Encourage use of this area as a convenient, close-to-town location for motorized recreation.

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

Evaluate the possibility of re-routing motorcycle and ATV traffic from Antelope Mountain to this area (to avoid user conflicts on proposed trails planned for non-motorized uses).

- Monitor OHV impacts and modified management as necessary in order to meet BLM land health standards and state water quality standards, and satisfactorily resolve any conflicts with adjacent landowners.
- If necessary to maintain public safety, close the Rice Canyon OHV area to target shooting.
- Work with Lassen County and the Sierra Sportsmen's Club to make the Rice Canyon Rifle Range more available for public use (this is a BLM Recreation and Public Purposes Act project).
- Work with Lassen County and the Lassen Amateur Radio Control Club to make the Rice Canyon Radio Control Runway more available for public use (this also is a BLM Recreation and Public Purposes Act project).
- Manage recreational activities and encourage visitor behavior that would minimize conflicts and reduce degradation of petroglyph sites.

### **Willow Creek Canyon Recreation Management Zone**

- Manage activities in Willow Creek Canyon with an emphasis on preserving, protecting, and interpreting its natural and cultural resources. Continue management actions that improve riparian habitat, water quality, and stream function.
- Limit livestock access to designated watering areas, in order to improve riparian habitats and meet BLM land health standards.
- Secure legal access to the upstream end of the BLM-administered segment in order to provide public access for fishing and hiking. Wherever possible, acquire privately owned parcels (from willing sellers) in order to improve public access to and through the canyon.
- Provide convenient creek access by building a hiking trail that runs the length of the canyon.
- Maintain public access to the Belfast petroglyphs. Encourage site interpretation and public education.

### **Shaffer Mountain Recreation Management Zone**

- Where populations and habitats of federally or state-listed wildlife occur, prioritize their protection and management.
- Develop a system of looped, single-tracked trails, primarily for mountain-biking, but also for other non-motorized uses, that provide short, medium, and long-distance options at varying degrees of difficulty.
- Maximize sightseeing opportunities and provide scenic overlooks on the roads that cross or ascend Shaffer Mountain.
- Work with willing landowners and Lassen County to increase the number of motorcycle and ATV riding areas in abandoned gravel pits along the Pleistocene lake terrace area that skirts the base of Shaffer Mountain's south side in Honey Lake Valley.
- Consider disposal of public lands (by exchange or other means) where this would facilitate the acquisition of additional lands of significant value for public recreation.

### **Bald Mountain Recreation Management Zone**

Develop a system of looped, single-tracked trails, primarily for hiking and horseback riding, but also for other non-motorized uses. These would provide short-, medium-, and long-distance options and a variety of scenic vistas encompassing the Honey Lake Valley and surrounding mountains.

### **Susanville Ranch Recreation Management Zone**

- Support Lassen County's Susanville Ranch Master Plan by retaining BLM ownership of adjacent and nearby parcels in order to create an extended network of trails that join with those of the Susanville Ranch Park.
- Manage BLM-administered lands adjacent to or near the Susanville Ranch trails and meadows as undeveloped, open space. Build interconnecting trails and limit their use to non-motorized recreation.
- If and where feasible, use BLM parcels not visible from Susanville Ranch as exchange properties to acquire certain lands. Lands desirable to be acquired adjoin Susanville Ranch Park west of the Susanville Ranch meadow and north of Paiute Creek.

### **2.9.6.5 Proposed Management Actions - South Dry Valley SRMA**

The proposed SRMA (46,813 acres) will be created and a recreation management plan developed for the area northeast of Honey Lake Valley (i.e., the area bounded by Sand Pass, Dry Valley Rim, the Wendel-Sand Pass Road, and the Sand Pass-Gerlach Road). Recreation is either day-use (principally by motorcyclists and OHV drivers from Lassen and Plumas Counties in California and the Reno/Sparks area of Nevada) or multi-day (primarily more distant visitors from Northern California). The most prevalent activities are recreational motorcycle and quad/ATV riding and hunting (hunters are mostly from Washoe County, NV). More distant visitors typically drive from two to eight hours (one-way), then camp and spend at least two days and nights driving or riding. Recreation management zones, and typical recreational activities, are as follows:

- **Turn-of-the-Road Trailhead:** staging area for competitive motorcycle racing
- **Roads and Trails Network:** day-use recreation (primarily OHV riding/driving), motorcycle events, sightseeing
- **Dispersed Use Area:** chukar partridge and pronghorn hunting
- The SRMA would include an area dedicated to motorcycle trail-riding. However, use would be limited to designated routes in order to protect natural and cultural resources.
- Manage under VRM Class II, III, or IV criteria, as appropriate for specific areas.
- With regard to ROS categories; manage most areas for a backcountry-type experience intermixed with small areas of 'Roaded Natural' terrain.
- All energy and minerals development would be 'Open', but with restrictive stipulations to protect recreation and other resources.
- Prepare a management plan in collaboration with an advisory group composed of interested/concerned parties (e.g., motorcyclists and OHV and quad/ATV riders, hunters, horseback riders, grazing permittees, and resource specialists). The advisory group would aid in setting management goals and objectives, establishing boundaries, and developing an implementation plan.
- Evaluate and realign (where indicated) existing roads and trails and establish new trails where desirable to create a return-trail (looped trails) network that varies in length, difficulty, and features.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

Trails must be placed where wildlife habitats would not be damaged and where soils can sustain expected OHV traffic.

- Equestrian groups, especially, must be included in the trail-planning process so that trails are also suitable for equestrian events, when and where this use does not conflict with recreational driving.
- Manage Turn-of-the-Road Trailhead for day-use and self-contained camping. During special events, portable toilets must be provided, serviced, and removed by event promoters.

### 2.9.6.6 Proposed Management Actions - Extensive Recreation Management Area

The ERMA—at 848,620 acres—would be reduced in size due to creation of two new SRMAs. Management within the ERMA would be as follows:

- Acquire or collaborate with appropriate entities to acquire abandoned railroad grades that are suitable for use as trails (e.g., the Modoc Line and the Fernley and Lassen Branch Line). Following acquisition, develop a trail management plan and evaluate for possible SRMA designation.
- Develop trails proposed for the Skedaddle Mountains, Twin Peaks, and the Dry Valley Rim proposed in Chapter 2.16 Travel Management, Table 2.16-8.
- Work with local trail groups, Lassen County, and Lassen and Plumas National Forests to develop a management plan for the Honey Lake Valley Rim Trail that would circle Honey Lake Valley primarily on BLM and National Forest lands. The trail would have joint use alignments in some areas and dual alignments in other areas where joint use would not be compatible in order to best serve both non-motorized and motor vehicle trail enthusiasts.
- Work with the Honey Lake Conservation Team, California Lands Commission, Lassen County, and other groups to provide public access to the Honey Lake shoreline. Public shoreline access to Honey Lake is very limited. With reacquisition of the lake by the State of California from the Department of Defense in 2006, BLM lands could provide valuable public access for activities such as waterfowl hunting, wildlife-viewing, windsurfing/kite boarding, kayaking/canoeing, warm-water fishing during wet cycles and (when the lake is dry) dry-land recreation such as land sailing. Securing legal access to BLM lands would be necessary where those lands are currently located or those lands could be used to provide access opportunities for locations more suitable for public use through land exchanges or other ownership transactions.
- Work with local hang-glider enthusiasts to create launch sites in the hills north of Wendel and in other suitable areas according to demand.
- Designate scenic and back country byways or other appropriate designations to promote recreational driving and sightseeing on the following roads:
  - Clark's Valley Road to Buckhorn Road (via Tuledad Road, Duck Flat and Highway 447)
  - Buckhorn Road to Smoke Creek Road (via the North Fork of Buffalo Creek, Highway 447 and Sand Pass Road)
  - Eagle Lake Loop using Highways 139, A-1, and Highway 36
  - Smoke Creek Road to Wendel Road (via Sand Pass Road)
  - Fredonyer Peak Scenic Loop Road (from Highway 139 via the fire lookout access road, thence to the logging road crossing the east and north sides of the mountain and back along Grasshopper Road to Highway 139)
  - Highway 139

**Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

- Highway 395
- Work with Caltrans to establish a partnership and prepare a plan for developing a vista point, with interpretive information, at the summit of the Highway 36 hill two miles west of Susanville (provides an overview of Honey Lake Valley).
- Develop visitor information featuring: “Premier Peaks, Panoramas, and Vistas” (of the ELFO management area) for the convenience and education of the public and promotion of rural tourism. Information would include vista points accessed by motorized and non-motorized means (see Table 2.9-2).

**Table 2.9-2 Proposed Access to Vista Points**

Vista Point	ROS Category	Access From	High Clearance 2WD	4WD	Hiking	Mountain Biking	Horseback Riding
<b>Driving and Riding Access</b>							
Fredonyer Peak	Backcountry	10-mile dirt road to summit (and planned trail)	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Shaffer Mountain	Backcountry	8-mile dirt road to summit	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>
Observation Mountain	Backcountry	6-mile rough dirt road to summit		<b>X</b>		<b>X</b>	<b>X</b>
Antelope Mountain	Backcountry	1-mile new dirt road to ridge east of summit	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>
<b>Hiking and Riding Access</b>							
Eagle Lake East Rim	Backcountry	Cross-country hike (and planned trail from Highway 139 to & along rim)			<b>X</b>		
Skedaddle Mountains	Primitive	4-mile cross-country ridge hike (and planned trail)			<b>X</b>	<b>X</b>	
Twin Peaks	Primitive	6-mile cross-country ridge hike (and planned trail)			<b>X</b>		
Shinn Mountain	Backcountry	2-mile rough dirt road & 0.5-mile hike			<b>X</b>		<b>X</b>
Dry Valley Rim	Primitive	From Skedaddle Rd or Pipe Springs Rd & cross-country hike (and planned trails)			<b>X</b>		<b>X</b>
Fort Sage Mountains	Backcountry	Indian Springs Road & Wild Horse Trail			<b>X</b>		
Bald Mountain	Backcountry	Byers Pass Road and via (proposed) trail to summit			<b>X</b>	<b>X</b>	<b>X</b>

## **2.10 Recreation Opportunity Spectrum**

The ROS is a method of evaluating, classifying, and managing public lands so visitors have access to a broad range of outdoor recreation experiences. Recreational settings vary considerably; from ‘Primitive’ areas (where visitor contact is low, management presence is slight or absent, and natural processes predominate) to areas with well-developed facilities and visitor services. The latter are characterized by high visitor contact and an obvious management presence. The type, size, and location of ROS classes will vary according to the characteristics and potential of the land being evaluated, as well as the type of visitor use (current and projected). ROS classes apply to all public lands in the ELFO management area.

### **2.10.1 Desired Future Condition**

Public lands would offer wide-ranging recreational opportunities. Most of the management area would provide opportunities for self-sufficient exploration in large expanses of undeveloped land where natural processes predominate. Other areas would be developed to provide facilities such as visitor information, campgrounds, and trails.

### **2.10.2 Goal**

Use the ROS system to inventory and classify current and potential recreational opportunities on public lands in the ELFO management area. Select and apply ROS classes appropriate for the selected alternative.

### **2.10.3 Objectives**

- Define ROS classes.
- Inventory existing recreational resources and classify ELFO-administered lands according to (defined) ROS classes.
- Modify the type, size, and location of ROS classes according to proposed management for each alternative to provide management options for this PRMP process.
- When an alternative is selected and the PRMP process complete; manage ELFO-administered lands according to guidance supplied for the ROS classes applicable under that alternative.

### **2.10.4 Legislative, Regulatory, and Policy Direction**

- Priorities for Recreation and Visitor Services (BLM 2003), page 19, Milestone 4; page 20, Milestone 5.
- BLM Land Use Planning Handbook, H-1601-1 (Mar. 2005), Appendix C, pages 15 and 16

### **2.10.5 Proposed Management Actions**

ROS Classes would be assigned to lands administered by the ELFO as shown in Table 2.10-1 and Map REC-2, and according to the following definitions:

Table 2.10-1 Recreation Opportunity Spectrum Classes

ROS Designation	Total (acres)
'Primitive'	237,953
'Backcountry'	675,335
'Roaded Natural'	109,479
Total	1,022,767

### Primitive

- *Setting:* The landscape is natural in appearance and free from most evidence of human presence or on-site controls. Motorized and mechanized uses are no longer permitted, but some evidence of vehicular ways and trails may remain.
- *Experience:* These areas provide solitude and separation from civilization in a predominately natural environment.
- *Activities:* Typical activities include hiking; backpacking; chukar, deer, and antelope hunting; horseback riding; wildlife viewing; photography and nature study.
- *Management:* These areas are designed to maximize the likelihood of solitude and isolation. There is little to no managerial or other human contact. Signage is absent or the minimum necessary to manage visitor use. Grazing is allowed under BLM permit, but land health standards must be sustained. Motorized and mechanized travel is not allowed.

### Backcountry

This ROS class was created by combining the former 'Semi-primitive Non-motorized' and 'Semi-primitive Motorized' classes to form a new 'Backcountry' class. With establishment of a designated route system, 'Semi-primitive Non-motorized' differs little from 'Semi-primitive Motorized' because (almost) all vehicle use would be limited to designated roads and trails under both classes.

- *Setting:* The landscape is predominantly natural, but there is some evidence of human presence but few on-site management controls. These areas contain vehicle ways and trails with active motorized use.
- *Experience:* Such areas provide abundant interaction with the natural environment and separation from civilization. One is likely to encounter other visitors on travel routes. However, concentrated use is generally low, except at trailheads, roadside camping areas, and some developed campgrounds (the latter are designated 'Roaded Natural').
- *Activities:* Typical activities include hunting, hiking, backpacking, recreational (OHV) riding and driving and mountain-biking (both on designated routes), horseback riding, wildlife viewing, photography, snowmobiling, and nature study. Consumptive uses (e.g., livestock grazing, woodcutting, and decorative rock collecting) are only authorized under permit.
- *Management:* Serious effort is made to reduce the impact of surface-disturbing activities. Project design stresses protection of natural values but also includes (low-standard) roads and trails, trailheads, signage, and interpretive sites. However, such features are the minimum necessary to manage visitor use.

With the exception of snowmobiles, mechanized travel is limited to designated routes—except where off-road use is specifically authorized for consumptive uses allowed under permit (e.g., livestock grazing, woodcutting, and decorative rock collecting). Designated routes are maintained and (when necessary) modified within 'Roaded Natural' corridors. Additional motorized and non-motorized routes are built when necessary to meet management objectives.

### **Roaded Natural**

- *Setting:* While the landscape is mostly natural, these areas are near improved and maintained roads (road density and development is greater than ‘Semi-primitive Motorized’ or ‘Backcountry’ areas). Human presence is evident and one may encounter visible on-site management controls, visitor facilities, utility corridors, and other forms of surface disturbance.
- *Experience:* Contact with other visitors is moderate to high (although visitor concentrations are generally low to moderate). The presence of greater numbers of people, better roads, and more man-made structures engenders greater security.
- *Activities:* Typical activities include camping, recreational (two-wheel drive [2WD] and OHV) driving and mountain-biking (both on designated routes), and interpretive experiences. Consumptive uses are allowed under permit, except at developed trailheads, recreation sites, and recreation activity areas.
- *Management:* Although surface-disturbing activities are common in some areas, serious effort is made to reduce their impact in order to maintain a natural-appearing landscape. These areas are more intensively used and managed than other ROS classes. With the exception of snowmobiles, mechanized travel is limited to designated routes, except where off-road use is specifically authorized for consumptive uses allowed under permit. Designated routes are maintained and modified when necessary. Additional motorized and non-motorized routes are built when necessary to meet management objectives.

Some multiple use management actions such as ROW authorizations, forest stand treatments, etc. may temporarily or permanently change the ROS classification for portions of the planning area. Changes to ROS classifications and associated impacts to recreation opportunities will be assessed and mitigated during site-specific environmental analysis for these projects. ROS classification changes will not require a plan amendment.

Other important proposed management actions include:

- Motor vehicle-based recreation would be promoted on an extensive system of designated roads and trails throughout a large ‘Backcountry’ area. (See Map REC-2.)
- Roadless areas that currently exist between ‘Roaded Natural’ corridors would remain non-motorized. ‘Primitive’ areas would be established within core areas of WSAs. Motor vehicle routes within ‘Primitive’ areas would be closed. Motor vehicles would be allowed on designated routes (including those that reach or border ‘Primitive’ areas).
- Private lands within ‘Primitive’ areas would be acquired from willing sellers. Land acquired by BLM would be managed to meet the program objectives that justified its acquisition. Therefore, the assigned ROS class must concur with acquisition objectives.
- Standardized corridor widths will be established along designated travel routes. Widths will be sufficient for road maintenance, vehicle pull-offs, signage, camping, and other types of visitor information and facilities. Areas through which these corridors pass would be designated ‘Roaded Natural’ under the ROS system.
- Widths would be established as follows:
  - On state highways, corridor width would not exceed 200 feet on either side of centerline.
  - For other travel routes, corridor width would not exceed 150 feet on either side of centerline.
  - Corridor width within WSAs will consist of the existing travel area or 4 feet on either side of centerline, whichever is greater. Where resource damage is occurring along travel route, efforts

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

will be made to reduce the impacted area through improved drainage or other appropriate measures.

- Lands within a WSA that are released by Congress from wilderness study status, would retain the ROS class(es) established for those lands.
- Modification of the motorized and non-motorized designated route network would be allowed as long as proposed changes:
  - Conform to the ROS class of the project area;
  - Are necessary to meet management objectives; and
  - Satisfy route modification criteria specified in Chapter 2.16 Travel Management.
- Where camping is concentrated along travel corridors in ‘Roaded Natural’ areas, the degree and extent of impacts on natural resources would be monitored. Campsites and human impacts must not impede progress toward, or maintenance of, land health standards or other plan objectives. If this occurs, individual campsites would be relocated or the area may be closed to camping and subsequently rehabilitated.

## 2.11 Soil Resources

Soil is essential for the growth of vegetation. Without an intact base of healthy, productive soil, watershed management goals for vegetation, wildlife, and livestock are not achievable. Soils in the ELFO management area are semi-arid, young, and poorly developed. Chemical and biological processes that form soil (e.g., weathering of rock, accumulation of organic matter, decomposition of plant materials and nutrient cycling) proceed slowly in this environment. Soil recovery processes are also slow. For these reasons, soil disruption can have long-term adverse effects on soil ecology and productivity.

### 2.11.1 Desired Future Condition

Soil would have desirable physical, chemical, and biological characteristics—including biological crusts. Soil would exhibit properly functioning condition (PFC) and moisture infiltration and permeability rates appropriate for the climate, local landforms and soil types. PFC means that soils are adequately protected from man-caused wind and water erosion and soil fertility is maintained at, or restored to, an appropriate level for the site. Where biological threshold conditions exist (i.e., areas in stable but non-natural or degenerate condition, such as sagebrush/cheatgrass sites), “appropriate characteristics” are those that one would expect under threshold conditions.

### 2.11.2 Goal

The long-term health and productivity of soil within the ELFO area would be assured, with no *net* loss of soil fertility. Sedimentation would be controlled, occurring at a rate that does not threaten sensitive resources, or human health and property. Lithic and earthen materials would be available for suitable uses (e.g., roads, gravel, and livestock watering facilities).

### 2.11.3 Objectives

- Continue to protect soil where land health standards are being achieved, through implementation of best management practices.
- Improve site stability and/or soil productivity where soil does not currently meet these standards.
- Prevent or eliminate erosion and sedimentation in sensitive aquatic (or other sensitive) environments to ensure there is no threat to property or human health.
- Limit development (e.g., roads, trails, facilities) to suitable soils.
- Provide sufficient earthen materials to meet the needs of county and state road departments.

### 2.11.4 Legislative, Regulatory, and Policy Direction

- S&Gs for Livestock Grazing Management on BLM-Administered Lands in Northeastern California and Northwestern Nevada (July 2000)—particularly the Standards for Rangeland Health (Appendix B).<sup>1</sup>

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<sup>1</sup>A portion of this document is concerned with the health standard for soil. This standard requires that upland soils exhibit infiltration and permeability rates appropriate for climate, landform, and soil type; and exhibit functional biological, chemical, and physical characteristics. It also requires that soil be adequately protected from man-caused wind or water erosion and fertility maintained at, or brought to, a pre-defined level. Although other standards guide and influence soil management decisions, the soil health standard is the basis for determining soil health, desired future condition, and the goals and objectives stated above.

### 2.11.5 Proposed Management Actions

Management practices will be implemented in order to achieve the desired future condition for soil. Management practices are generally applied as a system or set rather than a single intervention; and are applied on a site-specific basis, according to natural background conditions (i.e., climate, geology, landform, and ecology); current social, economic, and political considerations; and technical feasibility. Management practices would be used to achieve the following ends:

- Promote soil recovery on 100,000 acres known not to meet land health standards (Map SOIL-1 and SOIL-2).<sup>2</sup> Recovery practices would be formulated and applied on a site-specific basis at the project level.
- Ensure that management activities do not result in a *net* loss of soil productivity or productive potential. Reduce or eliminate activities and uses in perennial and intermittent drainages that would have adverse effects on watershed processes or function (see Map SOIL-3).
- Developments and uses (e.g., roads and trails, stock ponds, and reservoirs) would be limited to soils with the most suitable characteristics or unproductive soils.<sup>3</sup>
- Manage livestock grazing to promote healthy soil and watersheds. This means managing for biological integrity (including biological crusts), ensuring proper hydrologic function, and maintaining soil productivity.
- Restrict wild horses and burros to herd management areas (HMAs) and maintain numbers at appropriate management levels (AMLs). Reduce the AML if soil degradation is attributable to horses or burros.
- Treat invasive plants and noxious weeds (or modify management) on sites where soil function and integrity are compromised. Sagebrush/grassland communities that have been degraded to a predominance of medusahead or invasive western juniper are of particular concern.
- Use broad-scale vegetation treatment plans, such as for logging, prescribed burning, fuel-reduction, and juniper treatment, for appropriate levels of woody residue for soil benefits on a case-by-case basis.
- Develop and employ broad-scale vegetation treatment plans for logging, prescribed burns, and fuel and juniper reduction efforts to ensure that appropriate levels of woody residue are maintained for on-site soil benefits.
- Prevent damage to soil with high shrink-swell characteristics by limiting compacting activities (e.g., grazing, OHV use, and BLM maintenance activities) to periods when soil is dry and firm enough to resist compacting activities (i.e., when soil compression would be no greater than 2 inches for the sum of activities). Appraise and manage infrequent activities (i.e., those that occur at greater than 10-year intervals) on the basis of soil structural changes following the compacting activity (rather than using the compression standard).

Soil protection and management would primarily involve mitigation of soil-disturbing activities, conducted on a case-by-case basis. When altering uses and activities, by themselves, would not suffice to restore soil health – such as when threshold conditions have been exceeded – intervention would emphasize the following bio-engineering projects to rapidly achieve proper functioning condition and, ultimately, desired future condition.

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<sup>2</sup> At present, about 200,000 acres have been assessed. Approximately 800,000 acres are yet to be evaluated. When assessment is complete, other soils that do not meet land health standards would be added to this figure and included in implementation strategies.

<sup>3</sup> Soil survey reports are available for the entire management area at the local office of the Natural Resource Conservation Service. Suitability determinations are included in these reports; they are also available over the internet at: [soildatamart.nrcs.usda.gov](http://soildatamart.nrcs.usda.gov).

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Construction of exclosures and fencing to control grazing and trampling by livestock and wild horses
- Intensive planting of woody riparian vegetation
- Vegetation manipulation including prescribed burning and post-fire re-seeding.
- Installation of in-stream structures
- Check dams and other erosion-control structures

However, where significant progress is not being made toward meeting land health standards, emphasis would be placed on natural recovery processes including activity exclusion. Other important management actions are given below.

- Keep new road construction to a minimum to prevent erosion and loss of soil productivity.
- Conduct road maintenance at the current rate.
- Rehabilitate or close roads where needed to protect or restore soil. Where necessary, relocate roads to more suitable locations. (See Chapter 2.16 Travel Management of this PRMP for details on proposed road relocations.)
- Restrict development (e.g., roads, facilities, and watering troughs) to locations where loss of soil productivity would be minimized. Employ suitability data from soil survey reports and site investigations for this purpose.
- Plan and apply measures to ensure that no net loss of soil productivity occurs within “sixth-level” (or larger) watersheds (i.e., 10,000 to 40,000 acres).
- Establish properly constructed sediment intrusion buffer zones that extend for at least 50 feet beyond sensitive sites (e.g., bodies of water, sensitive plants, and archaeological sites) and developed property. This primarily concerns roads and trails, but applies also to any soil-disturbing activity that would create significant wind or water-borne sediments that would threaten sensitive resources, property, or human health.
- Restore and maintain soil health by emphasizing prescribed burns and other fuel-reduction projects. Follow this with reseeded or replanting, where indicated.
- Restrict heavy equipment to roads near perennial and intermittent drainages and wherever soils are not meeting land health standards, except where needed for rehabilitation or restoration.

## **2.12 Special Designations - Areas of Critical Environmental Concern**

43 CFR and BLM policy require that environmentally sensitive areas be evaluated and considered for special management as ACECs during the PRMP planning process. Areas that contain high-value resources or critical natural systems, processes, or hazards are eligible for consideration, if certain relevance and importance criteria are fulfilled. In order to meet these criteria, an area must contain significant historical, cultural, scenic, wildlife habitat, or other natural values. Furthermore, the site's importance must extend beyond the local level.

The designation of an ACEC is a BLM discretionary decision made through adoption of an RMP. In order to protect the resource values that justified designation of each ACEC in this PRMP (Appendix E "Relevant and Important Criteria"), BLM is required to develop and implement an ACEC management schedule or an activity plan (BLM ACEC Manual 1613.6). Each ACEC's management schedule or activity plan will be unique to the resources to be protected and are "management measures that would not be necessary and prescribed if the critical and important features were not present" (BLM ACEC Manual 1613.1.12).

RNAs are a special category of ACEC designated to protect examples of typical or unusual ecological communities, associations, phenomena, characteristics, or natural features or processes for scientific and educational purposes. They are established and managed to protect ecological processes, conserve their biological diversity, and provide opportunities for observational activities associated with research and education. Areas may consist of diverse vegetative communities, wildlife habitat, unique geological formations, cultural resources, and/or other values.

Designation of an ACEC does not automatically create land use restrictions that affect all on going or proposed land uses but rather, requires development of a set of management prescriptions tailored to protect the unique resource values for which the ACEC is established. Following adoption of this PRMP, a management schedule or activity plan for each ACEC will subsequently be developed, involving affected stakeholders, to set future management direction for the area. An ACEC designation applies to BLM lands and does not apply to private property rights and privately held water rights.

In compliance with NEPA, all proposed management actions on BLM lands, must be evaluated for their impacts whether such proposed management actions are within or outside an ACEC (e.g., fencing, ROW corridors, events authorized under a special recreation permit, etc). The type of NEPA document required is dependent upon the type of proposed impact(s) and the extent of public interest and/or controversy associated with the proposed project.

### **2.12.1 Desired Future Condition**

Unique resources and important values within ACECs would be enhanced (where feasible) and protected from irreparable harm.

### **2.12.2 Goal**

Designate areas of critical environmental concern, where the relevance and importance criteria are met, and implement management actions to protect recognized values.

### **2.12.3 Objectives**

Identify and protect all sites and resources that meet the relevance and importance criteria. Where necessary, take immediate steps to prevent irreparable damage to resources and natural systems. Promote safety and protect human life where natural hazards exist. Evaluate and consider designation for all areas that meet ACEC requirements. Formulate and implement management plans for designated ACECs.

### **2.12.4 Legislative, Regulatory, and Policy Direction**

- 43 CFR 1610
- BLM Manual Section 1613
- BLM Land Use Planning Handbook (H-1601-1), (2005)

### **2.12.5 Proposed Management Actions**

Designate the following (proposed) ACECs, for a total of 89,397 acres, as shown on Map ACEC-1 and summarized in Table 2.12-1:

- Pines Dunes Complex ACEC/RNA (2,887 acres—combines the Madeline Dunes with the Pine Dunes ACEC/RNA)
- Eagle Lake Basin ACEC (34,320 acres)
- Susan River ACEC (2,495 acres)
- Willow Creek ACEC (2,130 acres)
- Lower Smoke Creek ACEC (894 acres)
- Buffalo Creek Canyons ACEC (36,515 acres)
- North Dry Valley ACEC (10,156 acres)

All ACECs are ROW avoidance areas. This means that any applications for new ROWs or utility corridors would undergo a site-specific NEPA review, and would only be granted if BLM concurs 1) the only feasible location is within the ACEC, and 2) no relevant and important resources would be adversely affected. It is incumbent on the ROW applicant to investigate and document that the only feasible location is within the ACEC. BLM will utilize the applicant's documentation to evaluate concurrence.

#### **2.12.5.1 Pine Dunes Complex ACEC/RNA**

The Pine Dunes RNA would be managed to protect the unique biological resources of this area, under provisions of the existing Pine Dunes RNA plan with the following additions:

- Combine the Pine Dunes ACEC/RNA (160 acres) with the Madeline Dunes (2,727 acres) and designate the total area (2,887 acres) as the Pine Dunes Complex ACEC/RNA. Extend current fencing to completely enclose the Pine Dunes Complex ACEC/RNA. Manage newly-fenced portions as directed in 43 CFR 8223 and proposed management for the Pine Dunes ACEC/RNA.
- Protect the dunes and this unique stand of ponderosa pine (*Pinus ponderosa*), and provide research related to the representation of an undisturbed pine community.
- Maintain fences so that livestock and wild horses are excluded, as well as OHVs, to prevent degradation of soil and vegetation.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Expand the protected area to include the entire ponderosa pine community by acquiring (from willing sellers) intermingled private lands (1,648 acres) and include this in the ACEC/RNA.
- Manage vegetation (through mechanical or manual treatments) to eliminate the threat of disease to this unique ponderosa pine community.
- Continue current research and monitoring. Focus on recovery of the potential natural community; begin with determining characteristics of this community.
- Close the entire area to OHVs and woodcutting.
- Implement fire protection and control methods appropriate for the maintenance of this unique ecosystem.
- Manage the ACEC under VRM Class II criteria (i.e., preserve the existing character of the landscape).
- The Pine Dunes Complex ACEC would be ‘Closed’ to saleable minerals. A withdrawal would be recommended for locatable minerals. Leasable minerals would be restricted to NSO requirements.

### 2.12.5.2 Eagle Lake Basin ACEC

- Create the ACEC by designating the Eagle Lake Basin as an ACEC (34,320 acres of BLM-administered land) to protect cultural and historic values, fish and wildlife resources, and scenic values. Additional acres may be added if lands that support the ACEC designation are acquired from willing sellers. Emphasize meeting and maintaining land health standards and protection of wildlife habitats.
- Manage approximately 98% of the ACEC under VRM Class II criteria (i.e., retain the existing character of the landscape) and manage developed recreation sites as VRM Class III areas (partially retain the existing character of the landscape) to allow for recreation facilities.
- Satisfy state water quality standards and reduce or eliminate adverse impacts to shorelines from visitor use and other BLM authorized actions.
- Designate areas off Highway 139 for vehicular access to public shorelines. Provide similar access at designated points on the northwestern shore of Rocky Point, as well as along 1.3 miles of its eastern shore, and at Tunnel Beach.
- Obtain legal access and establish non-motorized trails to Buck Point, non-motorized portions of Rocky Point, Troxel and Little Troxel Points, and Black Mountain, subject to seasonal wildlife-protection requirements.
- Within the Eagle Lake Basin, clear brush and rock fall from the Merrillville-Beiber Wagon Road to allow non-motorized use of this historic wagon road.
- Build or maintain non-motorized trails that cross scenic landscapes, provide wildlife viewing opportunities, link recreation areas, and connect communities.
- Monitor shoreline use to ensure compliance with OHV restrictions and camping regulations.
- Monitor bald eagle nests and habitat in compliance with the Endangered Species Act.
- Monitor livestock grazing to ensure compliance with permit stipulations and maintain land health standards.
- Protect scenic, natural, cultural, and historic resources by closing the ACEC to leasable mineral development.

**2.12.5.3 Susan River ACEC**

- Create the Susan River ACEC by designating an eight-mile section (rim-to-rim) of the Susan River Canyon as an ACEC (2,495 acres of BLM-administered land) to protect historic, biological and geological values, fish and wildlife resources, and scenic values. Additional acres may be added if lands within the canyon that support the ACEC designation are acquired from willing sellers.
- Reserve this portion of the river corridor for public recreation by managing the ACEC under provisions of the Bizz Johnson Trail SRMA plan (as updated through adoption of this PRMP). Non-motorized travel and access would be maintained along eight miles of river and trail administered by BLM.
- Manage approximately 99% of the ACEC as VRM Class II to retain the existing character of the landscape and manage developed trailhead areas as VRM Class III areas to allow for recreation facilities.
- Recreational use of the river and its banks for activities such as fishing, swimming, floating, non-motorized boating, and picnicking would be encouraged, together with casual non-motorized access along the entire (eight-mile) length.
- The ACEC would remain unavailable for livestock grazing with the exception of a few small areas of public land behind fences that exclude livestock from most of the Susan River Canyon. These areas are adjacent to private lands south of the Susan River Canyon where grazing is authorized. Improve and maintain riparian and aquatic habitats.
- Preserve the ACEC's undeveloped character by acquiring internal or adjacent private lands from willing sellers.
- The river would remain open for active water sports (e.g., rafting and kayaking) and pertinent information would be provided regarding hazards of running the river.
- Close the ACEC to saleable and locatable mineral development (through a recommended mineral withdrawal) and apply NSO restrictions to leasable energy and mineral activities.
- Protect historic railroad bridges and tunnels under Section 106 of the NHPA.
- Monitor river channel conditions to detect changes that threaten the old railroad grade (i.e., the Bizz Johnson Trail) and historic bridges.
- Use the least disruptive and unsightly, but effective, methods and materials to repair damaged and eroded bridge abutments. Employ similarly effective methods for bank stabilization were necessary to protect the trail.
- Create a non-motorized South Side Trail along the south side of the Susan River Canyon by linking existing dirt roads with new, single-track segments and connect this trail with the Bizz Johnson Trail at Hobo Camp, Devil's Corral and at a mid point within the canyon.
- Direct equestrian use to the South Side Trail when conditions are such that the trail surface becomes too soft and irregular for other users (e.g., walkers, runners, cyclists, and the disabled).
- Close the ACEC to snowmobiles in order to provide a quiet environment for cross-country skiing and snowshoeing but provide for a snowmobile crossing of the Susan River west of Highway 36 on the old highway bridge.
- Monitor water quality to ensure that state standards are upheld. Where problems are indicated, take steps to control shoreline degradation or other impacts that adversely affect water quality.
- Measure and record visitor use of the Bizz Johnson Trail to determine use levels.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Recruit and train volunteers willing to patrol the trail and assist with litter clean-up and facility maintenance.

### 2.12.5.4 Willow Creek ACEC

- Create the Willow Creek ACEC by designating a segment of Willow Creek (2,130 acres of BLM-administered land) to protect cultural and historic, biological and geological values, fish and wildlife resources, and scenic values. Additional acres may be added if lands within the canyon that support the ACEC designation are acquired from willing sellers, in order to provide public access along Willow Creek.
- The ACEC falls within the Tunnison WSA and coincides with the existing ‘Closed’ OHV designation within and adjacent to Willow Creek Canyon (shown on Map TRAVEL-2). This OHV designation is in addition to the OHV restrictions required by WSA designations (the OHV designation would continue even if the WSA designation is eliminated by Act of Congress in the future).
- Manage BLM-administered lands along Willow Creek for non-motorized uses.
- As part of the Tunnison WSA, manage the ACEC under the Wilderness Interim Management Policy (IMP)—including VRM Class I criteria (preserve the existing character of the landscape)—in order to protect its natural appearance and wilderness qualities. However, if the area is not designated wilderness by an Act of Congress and is released from WSA status, it will no longer be subject to the Wilderness IMP. If this happens, visual resources would be managed under VRM Class II criteria. VRM Class II is not quite as restrictive as Class I but still emphasizes management to retain the existing character of the landscape.
- Protect prehistoric and historic sites and artifacts under Section 106 of the NHPA.
- Maintain existing fences to keep livestock out of the creek, except at designated water gap areas established for this purpose.
- Maintain the access road to the Belfast petroglyphs so that school groups and others can visit the site and hike the canyon for most of the year.
- Acquire private land (from willing sellers) within and adjacent to the ACEC that would protect the Willow Creek ACEC values and provides legal public access.
- Acquire legal access from Rice Canyon Road or Highway 139 to Sheep Bridge (T. 30 N. R 13 E Section 4) for the benefit of fishermen and hikers.
- Build a hiking trail through the canyon paralleling the creek for the length of the ACEC.
- Close the ACEC to saleable mineral development and locatable mineral development (through a recommended withdrawal) and apply NSO restrictions to leasable energy and mineral activities within 0.5 miles of the canyon rim.
- Track management objectives by monitoring, recording, and evaluating water quality, riparian health, condition of cultural resources, and visitor use.
- Maintain and enhance healthy, functional riparian areas and aquatic habitats.
- Provide and enhance opportunities for fishing, hiking, and archaeological sightseeing.
- Provide a peaceful, undisturbed setting for cultural use by Native Americans.

**2.12.5.5 Lower Smoke Creek ACEC**

- Create the Lower Smoke Creek ACEC by designating 894 acres of BLM-administered land along 3.2 miles of Lower Smoke Creek as an ACEC, to protect cultural and historic, biological and geological values, fish and wildlife resources, and scenic values. Total acreage is estimated based on approximately 0.25 miles on each side of the creek; however, actual boundary designation will vary subject to topography, and can include up to 0.5 miles on one side of the creek if the opposite side is directly adjacent to an obstacle (such as a cliff face that screens views of the adjacent landscape beyond the top of the cliff from the creek).
- Improve riparian condition by maintaining existing livestock grazing strategy, which limits livestock grazing to specific seasons of use.
- Manage to protect traces of the Nobles Emigrant Trail, and its undisturbed setting, under Section 106 of the NHPA (see Chapter 2.13 Historic Trails).
- Close the ACEC to saleable and locatable mineral development (through a recommended withdrawal) and apply NSO restrictions to leasable energy and mineral activities within 0.5 miles of the canyon rim.
- Acquire adjacent private land (from willing sellers) to improve riparian condition and water quality, provide legal public access, and protect and interpret remains of the Nobles Emigrant Trail and Smoke Creek Station, if available.
- As part of the Dry Valley Rim WSA, manage the ACEC under the Wilderness IMP – including VRM Class I criteria (preserve the existing character of the landscape) – in order to protect its natural appearance and wilderness qualities. However, if the area is not designated wilderness by an Act of Congress and is released from WSA status, it will no longer be subject to the Wilderness IMP. If this happens, visual resources would be managed under VRM Class II criteria. VRM Class II is not quite as restrictive as Class I but still emphasizes management to retain the existing character of the landscape.
- Manage the ACEC for OHV use as ‘Limited to Designated Routes’.
- Track management objectives by monitoring, recording, and evaluating water quality, riparian health, and the condition of scenic and historic resources.
- Provide and enhance opportunities for primitive (self-contained) camping, hunting, hiking, and scenic and historic sightseeing.

**2.12.5.6 Buffalo Creek Canyons ACEC**

- Create the Buffalo Creek Canyons ACEC by designating 36,515 acres of BLM-administered land within the Buffalo Creek Canyons as an ACEC to protect cultural, historic, and scenic values and the undeveloped setting of the Buffalo Hills Toll Road.
- As part of the Buffalo Hills and Poodle Mountain WSAs, manage the Buffalo Creek Canyons ACEC under the Wilderness IMP, including VRM Class I criteria. in order to protect its natural appearance and wilderness qualities. However, if the area is not designated wilderness by an Act of Congress and is released from WSA status, it will no longer be subject to the Wilderness IMP. If this happens, visual resources would be managed under VRM Class II criteria. VRM Class II is not quite as restrictive as Class I but still emphasizes management to retain the existing character of the landscape.

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

- Designate approximately 95% of the ACEC as a ‘Primitive’ classification under the ROS to ensure pristine, unspoiled conditions for hunting, hiking, wildlife observation, and scenic and historical sightseeing (see ROS designations for this area shown on Map REC-2).
- Restrictive stipulations would apply to standard locatable mining permits to ensure compliance with historic preservation laws. Extraction of saleable minerals would be limited to areas not visible from the Buffalo Hills Toll Road or from the 4WD road up the North Fork of Buffalo Creek.
- NSO restrictions would apply to leasable energy and mineral activities on areas visible from the Buffalo Hills Toll Road and other access roads.
- Monitor livestock grazing and wild horse numbers. Manage so that land health standards and riparian objectives are achieved.

### **2.12.5.7 North Dry Valley ACEC**

- Create the North Dry Valley ACEC by designating 10,156 acres of BLM-administered land to protect cultural, biological, and geological values, fish and wildlife resources, and scenic values.
- Protect cultural resources under Section 106 of the NHPA.
- Protect raptor nesting sites under the Migratory Bird Act and the Bald Eagle Act (which also includes golden eagles). Preserve the area’s usefulness as an antelope kidding ground.
- Pay special attention to preserving the scenic value of escarpments and cliff faces.
- Issue a ROW to Washoe County for maintenance and continued public use of the Sand Pass Road. Maintenance activities must uphold BLM land health standards and VRM Class II objectives.
- Manage the Tuscarora Pipeline Empire Lateral route within the ELFO as a right-of-way corridor that would allow BLM to issue additional ROWs within this corridor.
- The ACEC would be ‘Open’ to leasable, locatable, and saleable minerals, with the application of seasonal restrictions, and/or special stipulations to protect sensitive resources.
- Manage the ACEC for OHV use as ‘Limited to Designated Routes’.
- Acquire private land (from willing sellers) within or adjacent to the ACEC to provide legal public access and protection of wildlife habitat and cultural resources.
- Monitor visitor impacts on cultural resources, wildlife, and scenic landscapes. If necessary, modify management to protect these resources.

**Table 2.12-1 Management Summary for Proposed Areas of Critical Environmental Concern**

Size (acres)	ROW	VRM	Grazing	OHV	Minerals			Timber Harvest/ Woodcutting	Wildland Fire Mgmt.	Recreation Mining Equipment
					Leasable	Saleable	Locatable			
<b>Pine Dunes Resource Natural Area (RNA) Area of Critical Environmental Concern (ACEC)</b>										
2,887	AV	II	Unavailable	Closed	NSO	Closed	Closed	Closed/ Closed	FS	NA
<b>Susan River ACEC</b>										
2,495	AV	II, III	Unavailable	Closed <sup>1/</sup>	NSO	Closed	Closed	Open <sup>2/</sup> / Closed	FS	Non-motorized
<b>Willow Creek ACEC</b>										
2,130	AV <sup>3/ 4/</sup>	II <sup>5/</sup>	Available <sup>6/</sup>	Closed	NSO	Closed	Closed	Closed <sup>7/</sup> / Closed <sup>7/</sup>	FS	Non-motorized
<b>Lower Smoke Creek ACEC</b>										
894	AV <sup>3/</sup>	II <sup>5/</sup>	Available <sup>8/</sup>	LD	NSO	Closed	Closed	NA/Closed <sup>7/</sup>	AMR	Non-motorized
<b>Eagle Lake Basin ACEC</b>										
34,320	AV	II, III	85% of BLM shoreline closed; uplands available with restrictions	Closed on 1,611 acres; LD on 32,709 acres	Closed	Open <sup>9/</sup>	Open <sup>9/</sup>	Open <sup>2/</sup> /Open	FS	Non-motorized
<b>North Dry Valley ACEC</b>										
10,156	AV (except Tuscarora pipeline ROW)	II, III	Available	LD	Open <sup>9/</sup>	Open <sup>9/</sup>	Open <sup>9/</sup>	NA/ NA	FS	Non-motorized
<b>Buffalo Creek Canyon ACEC</b>										
36,515	AV	II <sup>5/</sup>	Available	LD <sup>10/</sup>	NSO <sup>11/</sup>	Open <sup>9/</sup>	Open <sup>9/</sup>	NA/Closed <sup>7/</sup>	AMR	Non-motorized

AMR = Appropriate management response (AMR may include full suppression)

AV =ROW avoidance area

FS = Full suppression

LD = Limited to designated routes

LE = Limited to existing routes

NA = Not applicable

NSO = No surface occupancy is allowed during exploration, development, or extraction of oil, gas, or geothermal resources

RS = Restrictive stipulations

SL = Standard lease

- 1/ Closed to OHVs. However; quiet, low-speed motorized wheelchairs (or similar conveyances) may be used by disabled persons. Closed to motorized snow vehicles.
- 2/ Open to commercial timber harvesting and fuel-reduction treatments with restrictions to ensure actions are compatible with VRM Class II objectives (i.e., to retain natural-looking landscapes) and the provisions of area management plans.
- 3/ The ACEC is mostly within a WSA. The WSA is a ROW exclusion area, as regulated by BLM's IMP. If WSA status is removed, a ROW may be issued only if ACEC values would be protected and enhanced.
- 4/ ROWs will not be issued for water diversions or dams within ACECs. Other kinds of ROW permits may be issued only if ACEC values would be protected *and* enhanced.
- 5/ The ACEC is in a WSA; therefore, VRM Class I criteria apply (under the Wilderness IMP). The listed VRM Class would apply if the area's WSA status is removed.
- 6/ The ACEC would be available to livestock grazing, but access to Willow Creek would be limited to designated water gaps.
- 7/ The ACEC is in a WSA, where woodcutting and timber harvesting are not allowed. If WSA status is removed, these activities would be allowed with restrictive stipulations to protect scenic and natural, as well as cultural and historic values.
- 8/ This area is available to livestock grazing, but only for brief periods. Grazing is closely monitored to ensure that it does not compromise land health standards.
- 9/ Mineral activity would be permitted; however, restrictive stipulations would be imposed to protect the values the ACEC is designed to preserve.
- 10/ OHVs would be 'Limited to Existing Routes' within the Buffalo Hills and Poodle Mountain WSAs.
- 11/ NSO restrictions apply only to areas seen from Buffalo Hills Toll road and public access road through canyon.

## **2.13 Special Designations - Historic Trails**

Currently, the Nobles Emigrant Trail, a branch of the California National Historic Trail, is the only designated national historic trail in the ELFO area. Although no new trails would be recommended for designation with adoption of this PRMP, during implementation of this PRMP, BLM would evaluate other historic trails in the field office area to determine if further protective actions are needed and determine whether these trails should be nominated for listing on the NRHP and for inclusion in the National Historic Trails System.

### **2.13.1 Desired Future Condition**

- Existing historic trail traces would be preserved for future viewing by historic trails enthusiasts.
- Undeveloped landscapes next to historic trails would be managed to maintain their undeveloped appearance, retain the undeveloped character of the historic trail route, and enhance the experience of visitors traveling the route of historic trails.
- The ELFO staff would enhance visitor and resident awareness, understanding, and appreciation of the historic trails in the field office area by interpreting each trail's heritage using various media (brochures, websites, signs, and interpretive presentations).
- BLM would form partnerships with local communities to market the heritage tourism opportunities of the field office area's historic trails and expand and diversify the recreational experiences offered by the area.

### **2.13.2 Goal**

Complete field inventories of historic trail routes. Locate, map, and record accurate locations of trail alignments and associated historic sites and features. Protect and interpret the historic and scenic trails in the ELFO jurisdiction for people interested in the heritage value of historic trails.

### **2.13.3 Objectives**

Manage the Nobles Emigrant Trail to preserve and protect trail traces and trail settings. Complete an inventory of the Nobles Emigrant Trail to verify trail alignments, camps, and other historic sites along the trail. Interpret the history and significance of the Nobles Trail in cooperation with other land management jurisdictions and interest groups.

Protect other historic trail traces and settings to retain their historic value for present and future generations to experience and enjoy. Inventory and evaluate historic trails to determine their eligibility for listing on the MRHP and, if suitable, nominate them for listing.

### **2.13.4 Legislative, Regulatory, and Policy Direction**

- National Historic Preservation Act of 1966, as amended
- National Trails System Act of 1968, as amended
- 43 CFR 8350
- BLM Priorities for Recreation and Visitor Services, May 2003
- BLM Land Use Planning Handbook, H-1601-1, (2005)

## Chapter 2: Management Actions for the Proposed RMP

### 2.13.5 Proposed Management Actions

Manage historic trails within the ELFO management area are shown on Map HT-1. Where trail traces remain and where trail routes pass through areas that still look much like the undeveloped land that the original trail users passed through, these segments of historic trails would be managed to protect:

- historic trail traces (visible trail remnants) and
- the largely undisturbed landscapes surrounding those historic trail traces.

The landscape would be protected where trail traces remain and where they have disappeared but the general trail route is known and the adjacent landscapes remain largely undeveloped. Such landscapes give the visitor following the trail route the sense of passing through landscapes similar to what original trail users passed through. Retaining the undeveloped landscapes and historic sites enhances the historic integrity of the trail alignment and enhances the experience of the visitor following a historic trail route. Landscapes would be protected along trails segments that have high integrity due to lack of landscape-altering developments. Where landscapes have been altered by trail construction, those features would be retained. In the case of historic railroad grades, those grades would be maintained for public use and enjoyment.

#### 2.13.5.1 Nobles Emigrant Trail

- Inventory and protect about 38 miles of the Nobles Emigrant Trail, a branch of the California National Historic Trail.
- Develop a management plan for the Nobles Emigrant Trail between the Smoke Creek Desert and Highway 395. Preserve the historic resources and undeveloped landscapes on BLM-administered lands next to the high-quality trail segments.
- Develop an interpretive plan for the Nobles Emigrant Trail. Implement actions from that plan to inform visitors of the trail's history.
- Manage a corridor 3 to 5 miles wide (on BLM-administered lands) on either side of the Nobles Trail as VRM Class II to retain the landscape's current character. (See management actions for Historic Trails in Chapter 2.21 Visual Resource Management).
- Sign the route of the Nobles Trail, where suitable and where sign maintenance would be feasible. Use signs that conform to the standards for alignments of the California National Historic Trail.
- Designate approximately 3.2 miles of Lower Smoke Creek through public lands as an ACEC to protect historic trail traces and largely undisturbed setting along a portion of the Nobles Emigrant Trail. The Nobles Emigrant Trail is part of the California National Historic Trail, which is considered "high quality" by trails interest groups and rated as "high potential" in the *Comprehensive Management and Use Plan Final EIS for the California National Historic Trail* (NPS 1999).
- This ACEC designation would also assist in protecting the riparian and wildlife values of Smoke Creek in this area.

#### 2.13.5.2 Other Historic Trails

- Adhere to Sections 106 and 110 of the NHPA in inventorying, evaluating, protecting, and interpreting the trails shown in Table 2.13-1.
- Develop management plans (e.g., cultural, national historic trails, etc.) for NRHP-eligible trails.
- In the future, inventory and evaluate other historic trails for eligibility.

**Chapter 2: Management Actions for the Proposed RMP**

- Research, develop, design, and produce or maintain interpretive brochures, signs, exhibits, and presentations for all historic trails in the field office area, subject to budget priorities.
- Secure public title or public access to and along abandoned railroad corridors within the field office area or support efforts of other entities to achieve public ownership and use of abandoned railroad corridors for public benefits including recreation trail uses.
- Designate as a scenic and historic ACEC the viewshed along the North Fork of Buffalo Creek from BLM land north of Buffalo Creek Ranch to the Stone Corral in T34N R19E Section 12. This is a scenic and largely undisturbed canyon area that encompasses the route of the Buffalo Hills Toll road, an 1800’s wagon road.

**Table 2.13-1** Other Historic Trails Managed in the Eagle Lake Field Office Area<sup>1/</sup>

<b>Name</b>	<b>Miles</b>
Merrillville-Bieber Wagon Road – Willow Creek area segment across BLM lands	9
Merrillville-Bieber Wagon Road – Eagle Lake segment next to Eagle Lake	7
Fort Churchill to Fort Bidwell Military Road and Stage Route	37
Buffalo Hills Toll Road	34
Military Patrol Road	50
Fernley-Lassen Branch Line	38
Modoc Line	52

<sup>1/</sup>Not including the Nobles Emigrant Trail.

## **2.14 Special Designations - Wild and Scenic Rivers**

The Wild and Scenic Rivers Act of 1968 is designed to preserve the free-flowing character of river and stream segments and protect them from alteration or degradation. All free-flowing portions of rivers and streams on BLM-administered lands must be evaluated to determine if they contain one or more “outstandingly remarkable values,” (e.g., scenic, recreational, geological, historical, cultural, or wildlife values). If one or more of these values are found, the river or stream segment is considered “eligible.” BLM is required to protect these eligible value(s) until a “suitability determination” is made. Eligible waterways are classified under one of three categories: “wild,” “scenic,” or “recreational”. A “wild” classification offers the highest degree of protection. “Scenic” and “recreational” classifications protect qualifying values while allowing broader (i.e., less restrictive) use. (See Appendix L, “Wild and Scenic River Eligibility and Suitability”).

If a river segment is found suitable, BLM provides interim protective management of the river segment’s identified values and free-flowing character until Congress makes a decision regarding the designation (either designating the river segment or denying protection under the Act).

The ELFO evaluated 22 streams for potential eligibility under the Wild and Scenic Rivers Act. A list of all evaluated streams and the Outstandingly Remarkable Values identified for eligible streams is listed in Appendix L. Portions of the Susan River, Willow Creek, Upper Smoke Creek and Lower Smoke Creek were found eligible for designation, as summarized in Table 2.14-1.

### **2.14.1 Desired Future Condition**

Effective legal safeguards would apply to certain free-flowing rivers and streams that meet the eligibility and suitability criteria under the national Wild and Scenic Rivers Act. Subject to valid existing rights, the rivers free flowing and outstandingly remarkable values would be protected.

### **2.14.2 Goal**

Protect and enhance the “outstandingly remarkable values” of rivers that are “administratively suitable” for inclusion in the national WSR system, until released from protection by congressional action.

### **2.14.3 Objectives**

Provide appropriate management protection for river segments found eligible and suitable under the WSR evaluation process.

### **2.14.4 Legislative, Regulatory, and Policy Direction**

- Wild and Scenic Rivers Act (1968, as amended), Section 5(d) (1)
- BLM Land Use Planning Handbook (2005), H-1601-1, Appendix C, III B2
- BLM Manual 8351, USDA and USDI Guidelines (Federal Register Vol. 7, No.173, Sept. 7, 1982)

### **2.14.5 Proposed Management Actions**

River and stream segments determined to be “eligible” (as evaluated by ELFO resource specialists) and also determined to be “administratively suitable” (as decided by the ELFO manager) for protection under the Wild and Scenic Rivers Act would be managed to preserve their “outstandingly remarkable values”

## Chapter 2: Management Actions for the Proposed RMP

(see Map WSR-1). River segments not recommended suitable would be released from further interim BLM administrative protection measures. The Wild and Scenic River Suitability Criteria for each eligible stream are listed in Appendix L. The following river segment has been found administratively suitable for WSR designation:

### 2.14.5.1 Upper Smoke Creek

- The entire eligible segment of Upper Smoke Creek (10.6 miles) would be recommended for WSR designation with a “wild” classification. This segment stretches from where the creek enters BLM land below Big Springs to where it leaves BLM land near Smoke Creek Reservoir. This encompasses 9.4 miles on BLM land and 1.2 miles off BLM land.
- Portions of the eligible segment are within the Twin Peaks WSA and will be managed according to the Wilderness IMP in order to protect its wilderness qualities.
- Protect cultural sites and encourage recovery of riparian areas. Keep livestock out of the creek by maintaining the enclosure fencing except at a few water gaps necessary for livestock and wild horse watering.
- Conduct guided interpretive tours of prehistoric and historic sites (on a limited basis).
- Manage visual resources as Class II, in order to retain the natural character of the landscape. The segment within the Twin Peaks WSA would be managed as VRM Class I unless the segment is released from WSA status by act of Congress where upon the VRM Class II designation would apply.
- Allow for continued motor vehicle use of existing dirt roads as described in following text. Maintain the OHV access road (a rough and rocky two-track) that passes close to the Smoke Creek headwaters [on private land] at Big Spring and the creek-crossing road 0.75 mile north of Shinn Ranch. Also maintain a rough dirt road that parallels the lower portion of Upper Smoke Creek (vehicles cannot be seen from the creek along most of this).
- WSR designation will not impair existing entitlements, including private property rights and privately held water rights.

The following river segments were found to have outstandingly remarkable values and are eligible under the WSR criteria, but will not be recommended suitable for WSR designation (see suitability write-ups in Appendix L). Table 2.14-1 summarizes the use restrictions for Upper Smoke Creek as well as the three river segments below.

### 2.14.5.2 Susan River

- Eligible segments of the Susan River (eight miles) will not be recommended as suitable for WSR designation. Instead, the outstandingly remarkable values of the area (2,495 acres) will be protected under management as an ACEC, designated as the Susan River ACEC, and recreation activities will continue to be managed as part of the Bizz Johnson Trail SRMA (2,756 acres – inclusive of and overlapping the Susan River ACEC’s 2495 acres). Specific management actions are listed in Chapter 2.12 Areas of Critical Environmental Concern and Chapter 2.9 Recreation.
- Manage under the updated version of the Bizz Johnson Trail SRMA plan as updated in this PRMP. This plan protects the river corridor from other, conflicting uses in order to preserve it for public recreation.

Only non-motorized public access and use would be allowed along the nine miles of the riverside Bizz Johnson Trail managed by BLM. Motor vehicles would be allowed only for emergency, administrative, and maintenance purposes.

## Chapter 2: Management Actions for the Proposed RMP

- Manage most of the ACEC as VRM Class II to retain the natural landscape, and manage developed trailhead areas as VRM Class III areas.
- Public recreational access would be permitted along the entire length of the river segment for activities such as fishing, swimming, floating, and picnicking.
- Historic railroad bridges and tunnels would be protected (in compliance with Section 106 of the NHPA).
- The river canyon will remain unavailable for livestock grazing except on a small part of the public lands located far from the Susan River and behind livestock enclosures (fences). Such grazing would only be authorized if grazing occurred in conjunction with grazing authorized on adjacent private lands and if such grazing could meet BLM Land Health Standards.
- Wherever possible, acquire private land from willing sellers in order to preserve the area's undeveloped character.
- The river would remain open for water sports (e.g., kayaking and tubing) and adequate safety education (regarding the hazards of the river) would be provided for users.
- The Susan River Canyon would be 'Closed' to saleable and locatable mineral development through a mineral withdrawal. Leasable energy and mineral activities would be restricted by NSO requirements.
- Protect fill portions of the trail and repair bridge abutments where vulnerable to or impacted by erosion and scouring during high water. Use the least disruptive and most effective streambank stabilization measures.

### 2.14.5.3 Willow Creek

- Eligible segments of Willow Creek (eight miles) will not be recommended as suitable for WSR designation. Instead, the outstandingly remarkable values of the area will be protected under management as an ACEC (2,130 acres). Specific ACEC management actions are listed in Chapter 2.12 Areas of Critical Environmental Concern.
- Manage Willow Creek through public lands as a non-motorized area.
- Manage visual resources as VRM Class II, in order to retain the natural character of the landscape. Because this area is entirely within the Tunnison WSA, BLM policy requires that VRM Class I applies until such time as Congress acts to designate the area as wilderness or return the area to multiple use management whereupon, the VRM Class II designation established in this PRMP for the Willow Creek ACEC would apply.
- Protect historic and prehistoric resources as directed under Section 106 of the NHPA.
- Keep livestock out of the creek, except at water gaps provided for that purpose.
- Properly maintain the Belfast Trailhead access road so that local school groups (and others) can easily and safely visit the Belfast Petroglyph site and hike in Willow Creek Canyon (during most of the year).
- Wherever possible, acquire private land from willing sellers in order to improve legal public access to and along Willow Creek and preserve the area's undeveloped character.
- Acquire legal access to Sheep Bridge area for the benefit of fisherman and hikers.
- Build a six-mile hiking trail through public land along Willow Creek.
- Manage land within the Tunnison WSA according to the Wilderness IMP in order to protect its wilderness qualities.

## Chapter 2: Management Actions for the Proposed RMP

### 2.14.5.4 Lower Smoke Creek

- Eligible segments of Lower Smoke Creek (3.2 miles) will not be recommended as suitable for WSR designation. Instead, the outstandingly remarkable values of the area will be protected under management as an ACEC (894 acres). Specific ACEC management actions are listed in Chapter 2.12 Areas of Critical Environmental Concern.
- Limit grazing (season-of-use restrictions) and exclude livestock from certain areas in order to improve riparian condition.
- Traces of the Nobles Emigrant Trail would be protected under Section 106 of the NHPA.
- Manage visual resources as Class II, in order to retain the natural character of the landscape. Because much of the Lower Smoke Creek ACEC is entirely within the Dry Valley WSA, BLM policy requires that VRM Class I applies within the WSA until such time as Congress acts to designate the area as wilderness or return the area to multiple use management whereupon, the VRM Class II designation established in this PRMP for the Lower Smoke Creek ACEC would apply. Outside the WSA, VRM Class II would apply, except for a narrow area along the disturbed area of Smoke Creek Road, which would be managed as VRM Class III to allow for road maintenance.
- Washoe County (NV) will continue to maintain Smoke Creek Road.
- Wherever possible, acquire private land from willing sellers above and below the eligible segment of Smoke Creek in order to improve legal public access, improve riparian conditions and water quality, and preserve the area's historic sites.
- Manage lands within the Dry Valley Rim WSA according to the Wilderness IMP in order to protect its wilderness qualities.
- Smoke Creek Canyon would be 'Closed' to saleable and locatable mineral development. NSO restrictions would apply for leasable mineral activities within 0.5 miles of the canyon rim.

**Table 2.14-1** Wild and Scenic River Designations and Use Restrictions

WSR Designation (Miles)	WSR Classification	VRM Class	Restrictions to Energy & Mineral Development (Acres)					Dam Construction and water Diversions Allowed
			Livestock Grazing Restrictions	OHV Restrictions	Leasable NSO	Saleable Closed	Locatable Closed	
<b>Susan River</b>								
0	NA	II,III <sup>1/</sup>	Closed	Closed	2,495	2,495	2,495	Yes
<b>Willow Creek</b>								
0	NA	II	Limited	Closed	2,130	2,130	2,130	Yes
<b>Upper Smoke Creek</b>								
10.6	Wild	II	Limited	Closed	3,392	3,392	3,392	No
<b>Lower Smoke Creek</b>								
0	NA	II,III <sup>2/</sup>	Limited	Closed	894	894	894	Yes

NA = Not applicable

<sup>1/</sup> VRM Class III applies only to the developed trailhead areas.

<sup>2/</sup> VRM Class III applies only to a narrow area along the disturbed area of Smoke Creek Road, to allow for road maintenance.

## 2.15 Special Designations – Wilderness Study Areas

There are seven WSAs and one instant study area in the ELFO management area (shown on Map WSA-1). Table 2.15-1 indicates the suitability of areas for designation as Wilderness, as determined in the 1990 California Statewide Wilderness Study Report (BLM 1990) and the 1991 Nevada BLM Statewide Wilderness Report (BLM 1991).

**Table 2.15-1** Wilderness Study Areas and Suitability Ratings

Name of WSA	California		Nevada		Total
	Suitable (acres)	Non Suitable (acres)	Suitable (acres)	Non Suitable (acres)	
Tunnison Mountain	7,889	11,995	0	0	19,884
Skedaddle	37,055	24,366	589	0	62,010
Five Springs	0	47,823	0	1,383	49,206
Dry Valley Rim	7,268	10,863	45,127	31,050	94,308
Twin Peaks	7,079	18,598	47,837	17,277	90,791
Buffalo Hills	0	856	0	37,334	38,190
Poodle Mountain	0	0	0	25,330	25,330
Bitterbrush Instant Study Area		640			640
<b>Total</b>					<b>380,359</b>

Management direction for WSAs is governed by BLM’s IMP until Congress makes a decision regarding wilderness designation. The Wilderness IMP generally takes precedence over other management direction. However, when a WSA overlaps another designation (such as a SRMA or an ACEC—where management *may* be more restrictive than the IMP—the more restrictive management direction would apply. Management of (congressionally designated) wilderness areas is determined in subsequent legislation. Management of areas released from wilderness study is based on existing management plans.

WSA designation is a Congressional decision, and is not discretionary to the local field office. WSAs do not create restrictions and/or buffers to adjacent private lands, or the right (directly or indirectly) to manage or otherwise influence uses of private property adjacent to the WSA.

New and existing mining operations (under the Mining Law of 1872) within WSAs (studied under Section 202 of FLPMA), are regulated under 43 CFR 3809 to prevent impairment of wilderness characteristics. All other activities are managed under the IMP.

According to the IMP for WSAs, the use of: “...mechanical transport, including all motorized devices as well as trail and mountain bikes, may only be allowed on existing ways and within open areas that were designated prior to the passage of FLPMA (October 1976).”

For the purpose of this analysis, “existing roads and ways” (within WSAs) are those that were present at the time FLPMA was passed (1976) and later shown on, and/or described in, the Final Intensive

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

Wilderness Inventory for Public Lands Administered by BLM-California outside the California Desert Conservation Area (BLM 1979).

Preserving wilderness values is crucial to managing WSAs. It is the main consideration when evaluating any proposed management action or use. Wilderness objectives take precedence over all other management objectives.

### **2.15.1 Desired Future Condition**

Wilderness values and characteristics in WSAs will be protected under the Wilderness IMP until such time as Congress makes a decision regarding (wilderness) designation. Therefore, unauthorized vehicle routes (within WSAs) would be closed and rehabilitated. BLM would manage core ‘Primitive’ areas within WSAs (Map REC-2) as pristine landscapes, unfragmented by vehicle routes (thereby reserving them for non-motorized uses). Areas that may ultimately be released from wilderness study status would continue to be managed as ROS ‘Primitive’ areas.

### **2.15.2 Goal**

Wilderness values and characteristics of WSAs would be protected under BLM’s Wilderness IMP pending congressional action and subject to (valid) pre-existing rights.

### **2.15.3 Objectives**

- Manage WSAs under the Wilderness IMP. Adjacent lands acquired by BLM since the wilderness inventory of 1979 that also have wilderness values would be managed to protect those wilderness values.
- Core ‘Primitive’ areas within WSAs would be managed to provide wildlife habitat and high-quality, traditional non-motorized recreation (e.g., hunting, hiking/backpacking, horseback riding, and wildlife viewing) in pristine settings.

### **2.15.4 Legislative, Regulatory, and Policy Direction**

- The Wilderness Act, P.L. 88-577, (Sept. 1964)
- The Federal Land Policy and Management Act (1976)
- Interim Management Policy for Lands under Wilderness Review, BLM H-8550-1, (July 1995b)

### **2.15.5 Proposed Management Actions**

Any activity or facility proposed within a WSA must satisfy the non-impairment criteria of the Wilderness IMP. This means that the activity or facility must be temporary, must not disturb the surface of the land, and must be easily and immediately terminated upon wilderness designation. Furthermore, upon such termination, wilderness values must not have been degraded to the point where the area’s wilderness suitability was compromised.

However, there are exceptions to the non-impairment criteria. These are listed below.

- Wildfire emergencies
- Search and rescue operations
- Reclamation activities designed to repair degradation from violations, pre-FLPMA activities, or emergency response

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- “Grandfathered” uses or facilities (i.e., tolerated under [valid] pre-existing rights according to the terms of the Wilderness IMP)
- Uses that enhance wilderness values or facilities judged necessary to meet minimum requirements for public health or safety

The “minimum tool” concept would be applied to all actions within a WSA. In other words, actions must be conducted with methods and equipment that have the least impact on the experience of wilderness and the physical, biological, and cultural resources of such lands. Maintenance of pre-FLPMA facilities would be limited to that required to keep them in usable condition. Use and development may not be modified or increased beyond the physical or visual impacts that existed at the time FLPMA was passed (1976). New temporary development(s) must satisfy the non-impairment criteria or enhance wilderness values. New, *permanent* developments must satisfy the non-impairment criteria, enhance wilderness values, and not require motorized access if the area receives wilderness designated. Because pre-FLPMA facilities (e.g., waterholes, spring developments, wildlife guzzlers, and fences) are “grandfathered,” they may be periodically maintained using motor vehicles, if that method qualifies as the minimum tool.

All private land in WSAs would be prioritized for acquisition on a willing-seller basis to retain the undeveloped character of the area, preclude the need for vehicle access, and prevent development that would impair wilderness values. Acquired lands within or adjacent to WSAs are not subject to the IMP. However, the wilderness characteristics of such lands would still be protected. Management specifics for acquired lands may be found in Appendix I.

WSAs will be managed to meet (BLM) VRM Class I objectives (i.e., to preserve the existing character of the landscape). Management actions required to meet BLM land health standards will be implemented, with the goal to restore WSAs to their original, natural condition.

Table 2.15-2 lists the 45 miles of roads and ways proposed for closure within core ‘Primitive’ areas of WSAs (see Map TRAVEL-2). Unauthorized routes will be located and obliterated and new routes prevented (as required under the Wilderness IMP). If a WSA is released from wilderness consideration by Congress, future management would be guided by the recreation opportunity spectrum and other stipulations discussed in Chapter 2.16 Travel Management.

**Table 2.15-2** Route Closures within ROS ‘Primitive’ Areas of WSAs

<b>Wilderness Study Area</b>	<b>Miles</b>
Tunnison	1.0
Skedaddle	19.3
Five Springs	3.2
Dry Valley Rim	4.7
Twin Peaks	7.8
Buffalo Hills	8.0
Poodle Mountain	1.0
<b>Total</b>	<b>45.0</b>

Approximately 68 miles of non-motorized, non-mechanized routes (trails) would be built within the Tunnison, Skedaddle, Dry Valley Rim, and Twin Peaks WSAs to provide high quality non-motorized experiences (as listed in Table 2.15-3 and shown on Map TRAVEL-3). They would be constructed to provide long-term use and require minimal maintenance. See Chapter 2.16 Travel Management, Table 2.16-8, for a detailed description of proposed non-motorized trails in WSAs.

**Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

**Table 2.15-3** Proposed Non-motorized Trails in WSAs

<b>Wilderness Study Area</b>	<b>Trail uses</b>	<b>Miles</b>
Tunnison	Hiking	6
Skedaddle	Hiking, horseback riding	19
Dry Valley Rim	Hiking, horseback riding	37
Twin Peaks	Hiking, horseback riding	6
<b>Total</b>		<b>68</b>

## 2.16 Travel Management

Travel management is concerned with three major issues: 1) designating areas and routes for motorized travel, 2) designating areas and routes for non-motorized travel, and 3) regulation of boating. The ELFO conducted a global positioning system (GPS) inventory in 2002 of roads and ways throughout the management area. Characteristics of each route were also noted on the ground. Then information was entered in BLM's GIS database to produce an accurate and updated map of roads and trails (see Map TRAVEL-1). With the adoption of this PRMP, routes charted on this map become the officially recognized or "designated" travel routes throughout the management area. All motorized travel would, henceforth, be limited to these routes—with some exceptions (see Proposed Management Actions below). However, some of these officially recognized routes would be 'Closed' to vehicular traffic for the following reasons:

- To halt degradation of roads and soils
- To protect sensitive vegetation and/or wildlife
- To close illegal routes in WSAs (i.e., routes established after 1979)
- To establish core roadless areas (i.e., areas with 'Primitive' ROS designations).

### 2.16.1 Off-Highway Vehicles and Route Jurisdictions

Five general categories of off-highway vehicles are recognized:

- 2WD vehicles
- 4WD vehicles,
- ATVs ,
- motorcycles, and
- snowmobiles.

The State of California, Lassen, Plumas, and Sierra Counties (California); and Washoe County, Nevada have jurisdiction over most roads in the management area that are maintained to 2WD standards. Therefore, this PRMP will focus on rough, primitive roads, ways, and single-track trails that are typically only suitable for 4WD vehicles, ATVs, or motorcycles.

### 2.16.2 Desired Future Condition

A network of designated travel routes would provide motorized access (where appropriate) for public recreation and BLM administration throughout the management area. This route network would also provide access to areas where motorized travel is forbidden. Motorized and non-motorized travel would be determined by the applicable ROS classification for a given area. Specific areas would be managed for use as recreational driving/riding areas and other areas would be limited for non-motorized recreation. The desired future condition has three management scenarios:

- 'Open': OHV (play) areas where vehicles are not restricted to roads and trails and may travel cross-country.
- 'Limited to Designated Routes': Areas where OHVs are permitted, although 'limited to designated routes' in order to maintain BLM land health standards.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- ‘Closed’: areas where OHVs are not allowed in order to protect natural and cultural resources or provide a high-quality, non-motorized experience for recreational activities (e.g., hiking, hunting, horseback riding, and wildlife-viewing).

The designated route network would be based primarily on the ELFO route inventory. Routes would be maintained, modified, created, or obliterated in order to meet land health standards, water quality standards, wildlife habitat needs, and changing public needs and desires. Changing needs and desires would be reflected in future implementation plans (e.g., the demand for hiking, mountain biking and horseback riding trails with non-motorized, return-trail features, is expected to increase.)

### 2.16.3 Goal

Design, develop, and maintain a sustainable travel route network that achieves a balance between public and administrative access and resource protection.

### 2.16.4 Objectives

- Designate ‘Open,’ ‘Limited’ and ‘Closed’ areas as required by Executive Order 11644 and amended by Executive Order 11989.
- Establish a coherent travel system that includes routes for motorized and non-motorized uses.
- Designate certain roads and trails for specific uses within ‘Limited to Designated Routes’ areas.
- Change the designated route system where needed to improve access, to protect resources, or to stabilize travel routes.
- Ensure public access for a multitude of recreational activities.
- Provide adequate access for administrative purposes.

### 2.16.5 Legislative, Regulatory, and Policy Direction

- Executive Order 11644 (Feb. 8, 1972), as amended (Executive Orders 11989 and 12608)
- 43 CFR 8340, Federal Register 44:34836 (June 15, 1979)
- Interim Management Policy for Lands under Wilderness Review, BLM, H-8550-1, Rel.8-17 (BLM 1995)
- BLM Priorities for Recreation and Visitor Services (BLM, 2003)
- BLM Land Use Planning Handbook, H-1601-1, (2005)

### 2.16.6 Proposed Management Actions

Vehicular travel would conform to the “Guidelines for OHVs” (see Appendix C) from BLM’s Northeastern California Resource Advisory Council.

The following uses or activities are exempt from the travel restrictions and requirements described in this PRMP:

- A military, fire, emergency, or law enforcement vehicle is exempt while in use for emergency purposes.
- A vehicle may be specifically exempted for a clearly defined purpose by a suitably authorized BLM official.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Vehicles engaged in official business may be exempted where use would otherwise conform to the management objectives for the affected area.
- Combat and combat support vehicles are exempt while engaged in national defense emergencies.

Where the public is accustomed to crossing private land to gain access to BLM-administered land, the Bureau will attempt to: acquire a public easement, acquire the land, or build a new access route through adjacent BLM-administered lands.

Organized OHV events would only be permitted on designated routes within 'Limited' and 'Open' areas. Starting zones, within 'Limited' areas, that require cross-country travel must be cleared through the applicable implementation plans (e.g., SRMA plans or environment analysis documents).

Designated routes would be built and maintained within specified parameters. Approximate *management width* for 4WD routes is 96 inches. Management width for ATV/motorcycle routes is 60 inches. However, the allowable *disturbance width* on designated routes is 192 inches (maximum) for 4WD routes and 96 inches (maximum) for ATV/motorcycle routes.

Routine maintenance on designated routes, without further environmental analysis, must be conducted within a maximum corridor width of 150 feet on either side of centerline (i.e., a 300-foot maximum width) on county roads as well as on designated routes administered by BLM—outside of WSAs. Within WSAs, the Wilderness IMP specifies more restrictive conditions. Here, maintenance must occur within four feet (maximum) on either side of centerline (or 96 inches) or within the existing travel area where vehicle based disturbance has occurred, (which ever area is greater). Where resource damage is occurring along a travel route, efforts will be made to reduce the impacted area through improved drainage or other appropriate measures.

Latitude is allowed for vehicle pull-offs used for parking and camping if land health standards can be maintained (i.e., the health of local soils, vegetation, and wildlife can be maintained and water quality preserved). If degradation of these areas cannot be successfully mitigated, parking and/or camping may be further restricted or closed altogether.

Factors that would necessitate modification of the motorized route network are:

- changes in designated use
- new route construction
- route realignment
- temporary or permanent route closure, and
- route obliteration and rehabilitation.

Route modifications must be consistent with PRMP goals and objectives and fulfill one or more of the following criteria:

- Actions would minimize damage to the watershed and its soil, vegetation, air-quality or other resources of the public lands.
- Actions would avoid significant habitat disruption and minimize harassment of wildlife. Special attention—and higher standards—would be imposed for endangered or threatened species and their habitats.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Actions would minimize conflicts between competing uses of the same, or adjacent, public and private lands and ensure that sanctioned activities are compatible with desired conditions for nearby populated areas (e.g., noise, air quality, and safety concerns, where applicable).
- Actions would improve wilderness characteristics and values or prevent impairment of suitability for wilderness designation.
- Actions would remove routes from unsuitable soils.
- Actions would improve or establish public access.
- Actions would protect public health and safety.

A system of designated roads, ways, and trails would provide reasonable opportunities for motorized recreation and motorized access to distant locations; including trailheads for non-motorized, cross-country travel (for activities such as hiking, hunting, fishing, and horseback riding). Approximately 1,656 miles of routes identified in the 2002 inventory would be designated (see Map TRAVEL-2). The following OHV designations would apply:

**Table 2.16-1** Off-Highway Vehicle Designations

OHV Designation	Size (acres)	% of Area
'Open'	419	< 1
'Limited to Existing Roads and Trails'	0	0
'Limited to Designated Routes'	760,837	74
'Closed'	261,511	26
Undesignated	0	0
<b>Total</b>	<b>1,022,767</b>	<b>100</b>

**'Open' designation.** 'Open' travel designations would apply on sites deemed suitable for heavy use where no compelling resource-protection needs exist. A lack of significant use conflicts or public safety issues regarding cross-country travel must also be evident. Over-the-snow vehicle travel would be 'Open' in all of the field office area except for 'Closed' areas and wilderness study areas where the use would be 'Limited to Designated Routes'.

Other 'Open' areas would be designated in the Fort Sage and South Dry Valley SRMAs (in addition to the existing free play gravel pit area and hill-climb area in Rice Canyon). "Free-play" areas and hill-climbing sites would be selected in future (area) management plans. Areas must be located where impacts would not cause damage to sensitive resources. Recommendations would be made by a team of resource specialists and interested parties. Designation and management of 'Open' areas is shown in Table 2.16-2.

**Table 2.16-2** Areas 'Open' to Off-Highway Vehicles on Public Land

Area	Location	Size (acres)
Rice Canyon	T30N R13E, portions of Sections 28, 29, 32, and 33	105
East of Tupi t'waba	T29N R16E, Section 19	90
Joey's Pit, south side Skedaddle Mountains	T28N R16E, Section 11	224
Fort Sage SRMA Hill Climb	To be determined	
Dry Valley SRMA Hill Climb	To be determined	
<b>Total</b>		<b>&gt; 419</b>

**‘Limited’ Designation.** Routes in areas not specifically designated ‘Open’ or ‘Closed’ would be part of the ‘Limited to Designated’ route network. This includes routes within WSAs (except for core ‘Primitive’ areas, which fall within the ‘Closed’ category). The Wilderness IMP (BLM 1995) requires that—at a minimum—vehicle use within WSAs be ‘Limited to Existing Ways’. For management purposes, “existing ways” are defined as the on-the-ground routes identified in BLM’s 1979 roadless area inventory. The recent GPS inventory (2002) is more accurate and up to date. It provides baseline information for management planning in this PRMP. Routes that have appeared since the 1979 inventory are in violation of the Wilderness IMP. Therefore, during the PRMP process, some “existing” ways will be designated and some will not. Routes in violation will be closed and rehabilitated. As a result, limiting vehicles to ‘Designated Routes’ will provide at least as much, if not more, protection for WSAs than limiting OHVs to ‘Existing Routes.’

Within the South Dry Valley SRMA (exact boundaries not yet identified), the designated route network will be identified as an interim route network (IRN). Within the next five years, a planning team made up of motorized and non-motorized users of the Dry Valley riding area and other affected users of the Dry Valley Area would assist BLM resource specialists in the development of a management plan for the South Dry Valley SRMA. The Dry Valley SRMA planning team would establish the detailed South Dry Valley SRMA boundaries, identify and resolve the issues, and—through collaboration—analyze the IRN and identify a final designated route network.

Priorities for signage within ‘Limited to Designated Route’ areas would be as follows:

- Within SRMAs: Signs would be used to clearly identify designated routes.
- Within the ERMA: Signs would not be used to identify designated routes (in order to avoid sign proliferation and maintenance expenses). Instead, maps of designated routes would be readily available to the public.

The following specific use designations would apply on travel routes within the ‘Limited to Designated Route’ areas on BLM-administered lands:

- State and County roads: Designation based on state and county regulation.
- Existing roads and trails: 4WD, ATV, or motorcycle.
- Routes within Fort Sage SRMA: See specific designation as detailed on Map TRAVEL-2.
- South Dry Valley SRMA: See specific designation as detailed on Map TRAVEL-2.

**‘Closed’ Designation.** Table 2.16-3 lists areas that will be ‘Closed’ to motor vehicles in order to protect natural or cultural resources, or provide areas for non-motorized recreation.

**Table 2.16-3** Areas ‘Closed’ to Off-Highway Vehicles

Area	Location	Acres
Bizz Johnson Trail SRMA	Susan River Canyon	2,756
Eagle Lake Basin SRMA	Little Troxel Point	166
	Troxel Point	592
	Buck Point	317
	Portions of Rocky Point	355
	Black Mountain Shoreline	181
Willow Creek Canyon SRMA	Willow Creek Canyon (7.7 miles)	2,130
ERMA	East Bald Mountain	3,111
	Tupi t’waba	78
Proposed Pine Dunes ACEC	Pine Dunes	3,060
Upper Smoke Creek area	Big Springs to Smoke Creek Reservoir (11 miles)	10,812
WSA ‘Primitive’ areas	Tunnison, Skedaddle, Dry Valley Rim, Five Springs, Twin Peaks, Buffalo Hills and Poodle Mountain	237,953
<b>Total</b>		<b>261,511</b>

Permanent route closures (59 miles) will be implemented as listed in Table 2.16-4.

**Table 2.16-4** Permanent Route Closures

Route	Core Primitive Area	Distance (miles)
Routes within ROS ‘Primitive’ areas  (see Chapters 2.10, Recreation Opportunity Spectrum, and 2.15 Special Designations – Wilderness Study Areas)	Tunnison WSA	1
	Skedaddle WSA	19.3
	Dry Valley Rim WSA	4.6
	Five Springs WSA	3.2
	Twin Peaks WSA	7.8
	Buffalo Hills WSA	8
	Poodle Mountain WSA	1
Routes within the Fort Sage OHV Area <sup>1/</sup>		13.1
Route within the proposed Pine Dunes ACEC		.5
<b>Total</b>		<b>58.5</b>

<sup>1/</sup> See Map TRAVEL-2.

The routes proposed for closure within the Fort Sage OHV area are due to the following reasons:

- Routes selected for closure in previous decision documents that were never closed;
- Routes selected for closure in previous decision documents that were not closed successfully; and
- Routes selected for closure in the current planning process.

Newly acquired parcels *within* the above-listed locations would be automatically ‘Closed’ to motor vehicles and newly acquired parcels adjacent to ‘Closed’ areas would require a site-specific determination. Motorized travel within (newly acquired) adjacent parcels would either be ‘Limited to Designated Routes’ or—in whole or in part—‘Closed’ to OHVs.

Routes designated as ‘Closed’ and routes that are not designated in this PRMP—or its subsequent amendments—would be permanently closed and rehabilitated in a natural manner, wherever feasible. Marking (signing) of ‘Closed’ routes would be prioritized and limited to areas where most needed.

**Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

Seasonal route closures would also be initiated to prevent destruction of roads in wet conditions, minimize the spread of noxious weeds, and to protect endangered species, as shown in Table 2.16-5.

**Table 2.16-5 Seasonal Route Closures**

Route	Location	Season of Closure	Objective
Cleghorn Access Road	T33N R11E, Sections 4, 9, 10	December 31 – August 31 December 1 – August 31	Protect wildlife habitat; Prevent road-rutting in very muddy conditions; Minimize spread of noxious weeds
Tablelands	T30N R14E, Section 18	January 1– April 15, depending on annual weather patterns	Prevent road-rutting in very muddy conditions and minimize spread of noxious weeds
Horse Lake Road	BLM roads off Horse Lake Road between State Route 139 and U.S. Highway 395	January 1– April 15, depending on annual weather patterns	Prevent road-rutting during wet periods

Approximately 45 miles of routes would be ‘Closed’ to snowmobiles. These closures coincide with the OHV closures within the ROS ‘Primitive’ areas (Table 2.16-4). The BLM-administered segment of the Bizz Johnson Trail (approximately 9 miles, east of Lassen National Forest boundary in T30N R10E Section 1 SWNW) would also be ‘Closed’ to snowmobile use. Exceptions would be made for emergency and administrative use (such as track setting for cross country skiing by a snowmobile-towed groomer).

Table 2.16-6 details proposed new routes (15 miles) that would be built to improve public access, re-route existing roads to more suitable locations, or improve OHV recreation experiences.

**Table 2.16-6 New Routes and Designated Uses**

Name	Location	Objective	Designation
Pete’s Valley Road connection (subject to release from WSA status)	T30N R13E, Sections 1 and 2 T31N R13E, Section 35	Access issues	4WD, ATV, motorcycle
Painter Flat to Willow Springs Road connection	T33N R18E, Sections 2,3,4,9, and 10	Road location issues	4WD, ATV, motorcycle
Big Springs Road re-route (pending possible acquisition)	T33N R16E, Section 2 T34N R16E, Sections 35 and 36	Road location issues	4WD, ATV, motorcycle
Fort Sage OHV area, connector trail (pending possible acquisition)	T26N R17E, Sections 21 and 22	Improve return-trail (loop) riding opportunities	ATV, motorcycle
Fort Sage OHV area – south end loop	T25N R17E, Sections 10 and 15	Improve loop riding opportunities	ATV, motorcycle
Fort Sage OHV area – single-track connector	T26N R17E, Section 34	Avoid difficult-to-maintain trail section	ATV, motorcycle

BLM will monitor known problem areas (and emerging problem areas as they are recognized) where travel routes cross sensitive resources (e.g., erodible soils, cultural sites, or habitats of endangered or threatened species). A determination would be made as to whether impacts are threatening land health standards.

If land health standards cannot be achieved or preserved, a plan would be formulated to close the route (if necessary) or mitigate impacts through measures such as improvements in route design and construction, re-routing, or limiting use during critical times of the year.

### **2.16.7 Non-Motorized Travel**

“Non-motorized travel” is defined as locomotion without the aid of a self-propelled device. Generally speaking, this means foot travel, or travel by mountain bike or horseback. The ELFO management area has four trails that are designated for, and restricted to, non-motorized uses:

- Bizz Johnson Trail,
- Stone’s Trail within the Eagle Lake Basin SRMA,
- Wild Horse Trail within the Fort Sage SRMA, and
- Coyote Bluff Trail on a segment of BLM-managed land within Lassen County’s Susanville Ranch Park.

The designated route system also contains 1,700 miles of roads, ways, and trails that are suitable for—though not restricted to—non-motorized uses. Non-motorized travel is also allowed off roads and trails throughout the management area, though restrictions apply in WSAs. In these areas, cross-country mechanized travel (e.g., mountain bikes) is not permitted (under the terms of the Wilderness IMP) and the use of mechanized and motorized transportation is limited to existing roads and ways.

Development of non-motorized trails focuses on popular and readily accessible recreation areas, scenic backcountry areas, and abandoned railroad grades. Highest priority for trail development is generally in SRMAs where environmental assessments have been completed and trail work is already authorized.

### **2.16.8 Desired Future Condition**

BLM resource specialists, together with trail enthusiasts and other interested/concerned parties, would plan, design, build, and maintain a network of trails with non-motorized travel designation providing the following recreational benefits:

- High-quality trails would be specifically designed with walkers, mountain-bikers, and equestrian use in mind. Visual interest would be emphasized, especially varied terrain and scenic vistas.
- Return-trails (“loop trails”) would be incorporated wherever possible. This would improve the recreational experience by avoiding back-tracking.
- Trails would vary in length and challenge from beginner to expert level.
- An extensive system of trails would be convenient to the larger residential areas (i.e., Susanville, the Honey Lake Valley, and other towns) and popular recreational destinations of Lassen County.
- Wherever possible, BLM-administered trails would connect with those on city, county, national forest and other public lands. Trails would be located wisely, well-designed, and built in a manner that would require little maintenance. As a result, trail alignments would be resistant to erosion and sustainable.

### **2.16.9 Goal**

- Improve quality of life for local residents through a system of non-motorized trails. Trails would provide access to public lands for physical fitness, recreation, and environmental/cultural education.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Create high-quality, trail-related recreational destinations that attract visitors to the scenic landscapes of Lassen County and northwestern Washoe County.
- Non-motorized trails would be part of an extensive trail network that varies in type, as well as in length and challenge level.
- Trail-based tourism would provide economic benefits for the local economy.

### 2.16.10 Objectives

- Complete the following trails (within existing SRMAs) for which environmental assessments have already been approved:
  - Stone Trail (Eagle Lake Basin SRMA)
  - Bucks Point Access Trail (Eagle Lake Basin SRMA)
  - Fredonyer Peak Trail (Eagle Lake Basin SRMA)
  - Eagle Lake Loop Trail (Eagle Lake Basin SRMA)
  - Willow Creek Canyon Trail (Tunnison WSA)
  - South Side Trail (Bizz Johnson Trail SRMA)
- Work with Lassen and Modoc Counties to acquire abandoned railroad ROWs suitable for trail conversion. These lines would be “rail banked” for possible railroad use at a future date, but used presently for walking, wildlife viewing, hiking, biking, and possibly motorized recreation on some stretches. Manage these railway corridors for a variety of recreational uses, as specified in a trail management plan to be developed when, and if, the following properties are acquired:
  - Modoc Line (Wendel to Alturas segment)
  - Fernley and Lassen Branch Line (Susanville to Wendel segment)
  - Fernley and Lassen Branch Line (Wendel to Flanigan segment, if it is abandoned)
- Plan, design, and conducted environmental assessments for a trail system within the (proposed) Antelope/Shaffer/Bald Mountain SRMA. When approved, build and maintain a return-trail (loop trail) network.
- Support local community efforts to encourage rural tourism by creating varied and interesting trails and promoting the recreational trail network as an attractive destination.
- Develop trail and associated area literature, to inform visitors and suggest routes through ROS ‘Primitive’ and ‘Backcountry’ areas. Prepare accurate and useful route maps to facilitate self-sufficient exploration and discovery.
- New back-country trails would be built for the following reasons:
  - When new trails are needed to reduce degradation from improperly situated user-established trails.
  - When trails must be realigned to avoid unsuitable soils or sensitive resources, or to provide adequate drainage (so the new trail would be sustainable and require minimal maintenance).
  - When desirable to improve recreational quality, typically by reducing the severe grades common to user-established trails. Trails would be rerouted to make the most of scenic overlooks and other interesting features, and provide good rest stops.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- When desirable to provide a better back-country experience by connecting popular activity areas with destination attractions or by improving access to interpretive sites, scenic vistas, or unique landscapes.

### 2.16.11 Legislative, Regulatory, and Policy Direction

- BLM Priorities for Recreation and Visitor Services (pages 14–18, 26, 28) (2003) (most relevant priorities: improve public access to public lands and enhance visitor enjoyment of public lands)
- BLM Land Use Planning Handbook (H-1601-1) (2005), Appendix C (p 18–20, Section D), “Comprehensive Trails and Travel Management”

### 2.16.12 Proposed Management Actions

Non-motorized trails will be managed as shown on Map TRAVEL-3. Simultaneous use (of non-motorized trails) by hikers, equestrians, and mountain-bikers would be the norm, unless otherwise specified. Where historic use has created a well-established (non-motorized) trail that connects BLM lands by crossing private land (or other-agency administered land), BLM would attempt to purchase (from willing sellers) or acquire an easement (or inter-agency agreement) to secure legal public access.

BLM will follow land health standards and guidelines for soils, water quality, streams, riparian areas and biodiversity when building and maintaining trails. BLM will also monitor known or potential problem areas where designated routes cross sensitive resources (e.g., vulnerable soils, cultural sites, or habitats of endangered or threatened species) to ensure these sites are not degraded. If degradation does occur, or land health standards are not achievable, a plan will be developed to close the trail or mitigate its impact through measures such as the following:

- Reconstruct the trail using an improved design;
- Re-route the trail; or
- Limit or eliminate use during critical periods (i.e., when impacts are most detrimental and/or use is heaviest).

Where (non-motorized) travel routes cross vertisol soils, or areas infested with invasive annual grasses, mechanized vehicles (e.g., mountain bikes) would be restricted to designated routes.

Trails will be built and maintained at the following (approximate) widths for management and monitoring purposes:

- Single-track trails: 18 to 36 inches (preferred by hikers, mountain bikers, and equestrians)
- Railroad grade trails: 8 feet (roadbed width), wider where needed to maintain cuts and fills (some roadbeds are wider still [double-track width] and portions of these may be preserved for maintenance vehicle pull-offs and turnarounds)

Factors that would necessitate modification of the non-motorized route network are:

- Changes in designated use
- New route construction
- Route realignment
- Temporary or permanent route closure, or
- Route obliteration and rehabilitation.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

Route modifications must be consistent with PRMP goals and objectives and fulfill the following criteria:

- With reference to WSAs, management actions should seek to improve wilderness characteristics and values. At the very least, actions must minimize damage to the watershed and its soil, vegetation, air-quality or other factors that could impair suitability for wilderness designation.
- Actions must avoid significant habitat disruption and minimize harassment of wildlife. Special attention, and higher standards, would be imposed for endangered or threatened species and their habitats.
- Actions would attempt to minimize conflicts between competing uses of the same, or adjacent, public and private lands and ensure that sanctioned activities are compatible with desired conditions for nearby populated areas (e.g., noise, air-quality, and safety concerns; where applicable).
- Routes would be realigned where they pass through unsuitable soils.
- Actions would improve or establish public access.
- Actions would protect public health and safety.

Routes that are not designated in this PRMP—or its subsequent amendments—would be closed and rehabilitated in a natural manner, wherever feasible. Marking (signing) of ‘Closed’ routes would be prioritized and limited to areas where most needed.

BLM will monitor known problem areas (and emerging problem areas as they are recognized) where travel routes cross sensitive resources (e.g., vulnerable soils, cultural sites, or habitats of endangered or threatened species). A determination would be made as to whether impacts are threatening land health standards. If land health standards cannot be achieved or preserved, a plan would be formulated to close the route (if necessary) or mitigate impacts through measures such as improvements in route design and construction, re-routing, or limiting use during critical times of the year.

Trails in special recreation management areas would be adequately marked to direct visitors. However, within the extensive recreation management area, signs would not be used on all trails to identify designated routes (in order to avoid sign proliferation and maintenance expenses) but may be installed if determined to be needed. Instead, trail maps would be readily available to the public. Table 2.16-7 lists existing non-motorized travel routes that would be maintained and managed.

**Table 2.16-7 Existing Non-Motorized Routes and Designations**

Trail or Area	Length or Size	Designation
Bizz Johnson National Recreation Trail	25 miles (11.7 miles on BLM land and 13.3 miles on USFS land)	Non-motorized <sup>1/</sup>
Stone Trail (Eagle Lake Basin SRMA)	2.5 miles	Non-motorized
Wild Horse Trail (Fort Sage SRMA)	1.5 miles	Non-motorized
Coyote Bluff Trail (the portion on BLM land in the Susanville Ranch Park)	0.3 miles	Non-motorized
Designated motorized travel routes throughout the management area	1,700 miles	All uses
Off-road and off-trail travel within WSAs	380,319 acres	Non-mechanized (e.g., hiking and horseback)
Off-road and off-trail travel outside WSAs	642,448 acres	Non-motorized

<sup>1/</sup> Snowmobiles would be allowed to cross the Bizz Johnson Trail on the bridge west of Devil's Corral in order to reach the other side of the Susan River.

**Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

Table 2.16-8 outlines the new non-motorized routes that would be built.

**Table 2.16-8** New Non-Motorized Routes

<b>Name</b>	<b>Location</b>	<b>Length (miles)</b>
<b>Eagle Lake Basin SRMA</b>		
Stone's Trail	Stone subdivision to the North Eagle Lake Campground	1
Buck Point Trail	Buck Point Rd. to Buck Point Saddle	1
Fredonyer Peak Trail	Highway 139 (by Eagle Lake) to Fredonyer Peak	4
Eagle Lake Loop Trail	Trail around north, east, and southeast sides of the lake with 19.5 miles of new trail segments linking 24.5 miles of existing dirt roads	19.5
Merrillville-Bieber Wagon Road	Clear 5 miles of old wagon road next to Eagle Lake (east of Highway 139) and build 1 mile of new trail	1
East Rim Overlook (hiking only)	Loop trail from Highway 139 (east to rim, along rim, then back to highway)	3
Stone Ranch Trail	From Highway 139, trail would pass southwest through Stone Ranch Conservation Easement (1.5 miles) to BLM parcel T32N R11E, Section 13 and connect via dirt roads to Youth Camp Road	1.5
<b>Total, Eagle Lake Basin SRMA</b>		<b>31</b>
<b>Bizz Johnson Trail SRMA</b>		
South Side Trail	Hobo Camp to Devil's Corral (primarily on old roads [south of Susan River] with approximately 2 miles of new trail construction)	2
Pigeon Cliffs Trail	From cliff top to base with connection to Bizz Johnson Trail	0.5
<b>Total, Bizz Johnson Trail SRMA</b>		<b>2.5</b>
<b>Fort Sage SRMA</b>		
Wild Horse to Jesus Springs Loop Trail	Loop trail in canyons east of OHV trails	2.5
<b>Antelope/Shaffer/Bald Hills SRMA</b>		
<b>Antelope Mountain</b>		
Highway 139 to Antelope Mountain	Would connect Route 139 (north of Lassen College) with southwest side Antelope Mountain	3
Skyline to Antelope Mt.	Would connect Skyline Trail (City) with Antelope Mountain Trails	2.5
Antelope Mountain Lower Loop	Would loop around Antelope Mountain	10
Antelope Mountain Upper Loop	Would loop around Antelope Mountain	3
<b>Total, Antelope Mountain Trails</b>		<b>18.5</b>
<b>Shaffer Mountain</b>		
Shaffer Mountain Trails	Single-track mountain bike trails (5 loop trails—combined distance includes 22 miles of new trail and 34 miles of existing dirt roads)	22
<b>Bald Mountain</b>		
Bald Mountain Loop Trail	Would loop around Bald Mountain (multiple use, but equestrian emphasis)	8
Bald Mountain Trail	Trail to summit of Bald Mountain	3
<b>Total, Bald Mountain Trails</b>		<b>11</b>
<b>BLM Susanville Ranch Parcels</b>		
Coyote Ridge Trail	Would climb to overlook area	0.5
North Side Loop Trail	Would link BLM parcels; would loop through hills north of Paiute Creek Canyon	4
<b>Total, Trails on BLM Susanville Ranch Parcels</b>		<b>4.5</b>
<b>Total, Antelope/Shaffer/Bald Mountain SRMA Trails</b>		<b>56.0</b>

Table 2.16-8 New Non-Motorized Routes

<b>Extensive Recreation Management Area</b>		
Biscar Loop Trail	Trail would extend around both Biscar Reservoirs	3
Modoc Line Rail Trail	Railroad grade (25 miles on BLM land and 25 miles on private land [attempt to acquire from RR] extending for 35 miles into the [BLM] Alturas Field Office area). Possible joint motorized use in some areas.	50
Honey Lake Valley Rim Trail	Would connect public lands on north and east sides of Honey Lake Valley with Forest Service lands on southwest and west sides (BLM segment: 51 miles of new trail and 51 miles on existing roads and trails and Forest Service segment: 50 miles of new trail and 50 miles on existing roads and trails)	51
<b>Total, ERMA Trails</b>		<b>104</b>
<b>Wilderness Study Areas</b>		
<b>Skedaddle WSA</b>		
Skedaddle Ridge Loop (hiking)	Brubeck Springs Pass to Hot Springs Peak with return through Spencer Basin and Wendel Canyon	9
Amedee Ridge Trail (hiking)	A ridge trail that would connect Wendel Canyon with Thousand Springs Canyon	8
Wendel Canyon Loop (hiking)	Would loop around the north and south forks of Wendel Canyon	1.5
Spencer Basin Saddle Trail (hiking)	Would connect the Skedaddle Ridge Loop with the Amedee Ridge Trail	0.5
<b>Total, Skedaddle WSA Trails</b>		<b>19</b>
<b>Dry Valley Rim WSA</b>		
Black Mountain Loop (hiking, equestrian)	Would follow old roads from Rocky Trail Reservoir to Black Mountain and loop back (2 miles of new trail and 7 miles on existing dirt roads)	2
Eagle's Head Loop (hiking, equestrian)	Would follow old roads to Eagle's Head and loop back (3 miles of new trail and 6 miles on existing dirt roads)	3
Parker Canyon to Thomas Canyon Loop (hiking)	Would climb through Parker Canyon to Dry Valley Rim and, after crossing rim, would descend Thomas Canyon to Pipe Springs Road (8 miles on new trail and 3 miles on an existing dirt road)	8
Dry Valley Rim Trail	Would cross the entire north-to-south rim from Turn-of-the-Road Trailhead to Rush Creek (36 miles, minus 12 miles included in other loop trails)	24
<b>Total, Dry Valley Rim WSA Trails</b>		<b>37</b>
<b>Twin Peaks WSA</b>		
Twin Peaks Trail (hiking, equestrian)	Would follow ridge from the summit of the Burro Mountain Road to Twin Peaks summit	6
<b>Tunnison WSA</b>		
Willow Creek Canyon Trail (hiking)	In Willow Creek Canyon from the Sheep Bridge in the W1/4SE1/4, Section 4, T30N, R13E to the petroglyphs in the SE1/4SW1/4, Section 7, T30 N, R14 E, north of Belfast	6
<b>Total, WSA Trails</b>		<b>68</b>
<b>Total, New Non-Motorized Trails (miles)</b>		<b>264</b>

The highest priority for non-motorized trail development would be in the following areas:

- The Bizz Johnson Trail SRMA and areas close to Honey Lake Valley population centers
- The (proposed) Antelope/Shaffer/Bald Mountain SRMA (on the north side of Honey Lake Valley)
- Scenic backcountry/primitive areas within the Eagle Lake Basin SRMA

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

- On 50 miles of the (abandoned) Modoc Line railroad grade (85 miles in total; 50 miles within the ELFO management area and 35 miles within the Alturas Field Office management area)
- On 51 miles of new trail segments linking BLM land on the north and east sides of Honey Lake Valley with Forest Service land and little-used dirt roads (50 miles) to the south and west of Honey Lake Valley (connection would also be made to Lassen County and City of Susanville trails)

Trails in these areas would be prioritized and built in specific locations and for the specific purposes, as described below.

### **2.16.12.1 Eagle Lake Basin SRMA**

- Stone Trail completion – connects Stone subdivision to North Eagle Lake Campground
- Buck Point Trail – provides public access to Buck Point from Buck Point Road
- Fredonyer Peak Trail – provides a trail to the scenic summit from the Eagle Lake shoreline near Highway 139
- Eagle Lake Loop Trail – connects activity areas around Eagle Lake with a trail that crosses varied and scenic landscapes and provides wildlife-viewing opportunities within the Eagle Lake Basin
- Merrillville-Bieber Wagon Road – would be cleared of brush to provide trail-based recreation on six miles of historic wagon road along the northeast shore of Eagle Lake
- East Rim Overlook Trail – would provide scenic views over Eagle Lake on a route that starts as a hiking trail from Highway 139, ascends to the rim via a canyon, traverses part of the rim, returns to the highway via another canyon and uses part of the old wagon road to make a loop back to the start
- Stone Ranch Trail – would provide a route from the Merrillville-Bieber Wagon Road (east of Highway 139) to access public lands southwest of Stone Ranch via the Stone Ranch Conservation Easement

### **2.16.12.2 Bizz Johnson Trail SRMA**

- South Side Trail – The trail would connect Hobo Camp Trailhead to Devil’s Corral Trailhead to provide an alternate trail within the Susan River Canyon and loop trail in conjunction with the Bizz Johnson Trail. The trail would provide an alternative for equestrians that could better handle higher levels of horseback activity (especially when other-user traffic is heavy or trail conditions are unsuitable for horses on the Bizz Johnson Trail).
- Pigeon Cliffs Trail – The trail would increase safety on the precipitous descent from the top of the cliff to the climbing area at its base. Together with a short connecting route to the Bizz Johnson Trail, it would also facilitate evacuation of injured climbers or hikers.
- Snowmobiles would be allowed to use the Bizz Johnson Trail to cross the Susan River on a bridge that spans the river west of Devil’s Corral trailhead.

### **2.16.12.3 Fort Sage SRMA**

Wild Horse Trail to Jesus Springs Loop Trail—would travel through rugged uplands and two canyons to provide scenic views of unusual rock formations and expansive scenic vistas across Honey Lake Valley.

#### **2.16.12.4 Antelope/Shaffer/Bald Hills SRMA**

A master (trail) plan would be developed for the SRMA. A single-track, return-trail (loop trail) system would be specifically designed to serve the following user groups:

- Antelope Mountain – non-motorized uses (non-specific)
- Shaffer Mountain –mountain-biking emphasized
- Bald Mountain – horseback riding emphasized
- Willow Creek Canyon – limited to foot travel (e.g., hiking)
- Susanville Ranch BLM Parcels – non-motorized uses (non-specific)

The Antelope/Shaffer/Bald Hills SRMA management plan would establish an equitable and compatible combination of non-motorized uses and suitable trail locations. The plan would be further refined as area-specific trail systems are planned and developed.

#### **2.16.12.5 Wilderness Study Areas**

Cross-country travel would be emphasized; however, new trails would be built if demand for a trail is strongly supported by trail users willing to collaborate in its building and maintenance or where visitor-developed trails require realignment or proper construction in order to reduce soil erosion or other adverse impacts. These criteria would apply over the life of this PRMP. Priority for trail building within WSAs would be as follows:

- Skeddaddle WSA – Skeddaddle Ridge Loop, Amedee Ridge Trail, Spencer Basin Saddle Trail, and Wendel Canyon Loop
- Dry Valley Rim WSA – three loop-trails that ascend to, traverse and descend from Dry Valley Rim (and that join the Dry Valley Rim Trail at different points along its crest)
- Twin Peaks WSA – Twin Peaks Ridge Crest/Summit Trail (from Burro Mountain Road to the summit)
- Tunnison WSA – Willow Creek Canyon Trail (from Sheep Bridge to the Belfast Petroglyph site)

#### **2.16.12.6 Extensive Recreation Management Area**

Reasons and objectives for other high-priority trails that would be built in the ERMA are as follows:

- Biscar Cooperative Wildlife Area—Build a trail around both reservoirs; principally to provide access for fishing, bird hunting, and wildlife-viewing, as well as to reduce adverse impacts from unplanned, visitor-created shoreline trails.
- Modoc Line Rail Trail—In cooperation with BLM’s Alturas Field Office and Lassen and Modoc Counties, convert the abandoned railroad grade (extending roughly from Wendell, CA to Alturas, CA) to a recreational trail for sightseeing, wildlife-viewing, mountain biking, and long-distance trail events. Retain the option to reactivate as a recreation-based railroad. Motorized use may be allowed on some portions of the trail subject to the decisions made in the management plan for the trail, once acquisition of the railroad corridor occurs.
- Honey Lake Valley Rim Trail—Assemble a long-distance loop trail around Honey Lake Valley that would be enjoyed by local residents and become a destination attraction for visitors wishing to experience challenging terrain, varied landforms, and outstanding scenic vistas of three geographical regions (i.e., the Great Basin Desert, the northernmost portion of the Sierra Nevada, and the southern end of the Modoc Plateau [a sub-region of the Cascade geographical province]). This would require

cooperation with Plumas and Lassen National Forests. There would be little need for the route cross private land. Preliminary evaluation reveals that the project would involve 200 miles of trail divided approximately equally between BLM and the National Forests. This grand trail could be created by linking existing dirt roads, building new (previously mentioned) trails, and adding some connector segments. During trail planning, separate and joint use routes for both non-motorized and motorized users may be possible since much of the proposed trail could use existing dirt roads.

**2.16.13 Motorized and Non-Motorized Boating**

The following waters are open for boating under the propulsion categories listed in Table 2.16-9. Boating restrictions are designed to favor and facilitate a certain range of recreational experiences from non-motorized activities (e.g., swimming, wildlife-viewing, shoreline fishing or non-motorized boating such as canoeing, kayaking, float tubing) through low-powered boating (quiet engine and small wake—a typical fishing boat) to unrestricted motorized uses (e.g., power-boating, water-skiing, personal watercraft, pontoon boats, etc.).

**Table 2.16-9** Allowable Boating Uses

<b>Body of Water</b>	<b>Proposed Management Action</b>
Dodge Reservoir	No restrictions <sup>1</sup>
Round Corral Reservoir	Human-powered watercraft and low speed trolling motors
Buckhorn Reservoir	Human-powered watercraft and low speed trolling motors
Upper Biscar Reservoir	Human-powered watercraft
Lower Biscar Reservoir	Human-powered watercraft
Eagle Lake	No restrictions
Susan River (Devil’s Corral to Susanville)	Human-powered watercraft

<sup>1</sup> No boating restrictions would apply to Dodge Reservoir, but boating would continue to be limited by the undeveloped shoreline used for boat launching. If a boat launch were developed in the future, management would continue to emphasize low-speed fishing boats.

## 2.17 Vegetation

There are seven distinct vegetation alliances identified and mapped in the ELFO management area, and several individual plant communities within these alliances (See Map VEG-1). Sagebrush-steppe communities are the dominant native vegetation (including Wyoming big sagebrush, mountain big sagebrush, low sagebrush, greasewood, bitterbrush, and winterfat-dominated communities). The encroachment of western juniper into many sagebrush-steppe communities has significantly altered the composition, function, and health of these communities. Perennial and annual grasslands, coniferous forest, true western juniper woodlands, aspen and oak woodlands, and riparian/wetland sites make up the remaining vegetation alliances (Table 2.17-1). Table 2.17-1 and Map VEG-2 show biotic integrity ratings for these vegetation alliances, based on land health assessments. Vegetation alliances dominated by forest species are discussed in “Forestry”, Chapter 2.5. “Noxious Weeds” and “Special Status Species” are discussed separately in Chapters 2.18 and 2.20, respectively. “Riparian Areas/Wetlands” are discussed in detail in Chapter 2.19.

**Table 2.17-1** Terrestrial Vegetation Health Summary <sup>1/</sup>

Vegetation Alliance/Association	LAND HEALTH RATING				Total
	Healthy	Healthy/Lacking Key Attributes <sup>2/</sup>	At Risk	Unhealthy	
Coniferous Forest (all canopy cover classes)	14,000	4,000	4,000	0	22,000
True Juniper Woodland	0	4,000	10,000	7,000	21,000
Black Oak Woodland	0	1,000	0	0	1,000
Mountain Mahogany	1,000	500	0	0	1,500
Aspen Forest and Thicket	15	1,000	200	0	1,215
Big Sagebrush–Wyoming Big Sagebrush	2,000	6,000	17,000	3,000	28,000
Big Sagebrush–Mountain Big Sagebrush	14,000	28,000	8,000	0	50,000
Big Sagebrush–Basin Big Sagebrush	15,000	5,000	0	9,000	29,000
Low Sagebrush–Low Sagebrush	43,000	38,000	27,000	4,500	112,500
Low Sagebrush–Lahontan Sagebrush	6,000	54,000	14,000	0	74,000
Great Basin Mixed Shrub	181,000	157,000	146,000	48,000	532,000
Mixed Desert Shrub	25,000	25,000	47,000	9,000	106,000
Herbaceous Grassland–Annual	0	3,000	3,000	11,000	17,000
Herbaceous Grassland–Perennial	1,000	5,000	100	200	6,300
Herbaceous–Forb	0	0	2,500	2,500	5,000
<b>Total Area by Health Status</b>	<b>307,015</b>	<b>328,500</b>	<b>276,800</b>	<b>94,200</b>	<b>1,006,515</b>
<b>Percent Total Area by Health Status</b>	<b>30</b>	<b>33</b>	<b>27</b>	<b>9</b>	<b>100</b>

<sup>1/</sup> Acres based on land health assessment sample extrapolation using GIS analysis. Accuracy is a function of sample size/variability and GIS data integrity.

<sup>2/</sup> ‘Healthy, Lacking Key Attributes’ means that lands were rated as ‘Healthy’ based on the nine indicators for the biotic integrity attribute rating (Table 3.18-1), but indicators did not fully meet the Biodiversity Land Health Standard.

Source: USDI BLM 2000.

Terrestrial vegetation species and characteristics (such as distribution, density and seral stages), plant alliances and associations, and vegetation health are determined by a complex interplay of climate, geology and landform, soils, animals, and microbes and also, to a large degree, human use and activities.

Beginning in 1982, BLM began using the ecological site inventory to describe, quantify, and evaluate the condition of vegetation on public lands. Habich (2001) describes ecological sites as "...a kind of land with a specific potential natural community and specific physical site characteristics, differing from other kinds of land in their ability to produce distinctive kinds and amounts of vegetation and to respond to management. Ecological sites are defined and described with information about soil, species composition, and annual production."

Ecological sites are: 1) associated with specific soil series and 2) have the potential to change. Ecological site potential is the propensity of vegetation (on a given site) to pass through a variety of earlier successional stages, before arriving at the potential natural community (PNC), which is the most stable condition for the site. (Earlier stages generally occur in response to natural or man-caused impacts.) Originally, evolving ecological sites were thought to make steady progress toward PNC when not overused by human activities (e.g., grazing) and to regress from PNC if overused or altered by wildfire. This tendency is known as the "succession and regression model" for vegetation.

However, in the late 1980s and early 1990s, two ecologists, Archer (1989) and Friedel (1991), developed the "state and transition" model for vegetation succession. Unlike the succession and regression model, this model asserts that vegetation in PNC will remain in a stable state until disturbance becomes great enough to push the site across an ecological threshold; beyond which (for some sites) it is unlikely to recover without human intervention. At this point, mechanical treatment will usually be required to alter conditions sufficiently to (once again) cross the ecological threshold and permit a return to its former stable state.

A very common threshold condition in the ELFO management area occurs when sagebrush/perennial grass sites are converted to sagebrush/annual grass sites. This usually occurs when a wildland fire burns a site supporting annual grasses from an earlier disturbance. These non-native, annual grasses are very competitive and, under such conditions, tend to replace native perennial grasses. Replacement, in turn, shortens the fire cycle so that sagebrush cannot sufficiently recover between burns. This results in a site dominated by exotic annual grasses. Breaking this destructive cycle, and returning the site to PNC, requires focused effort and mechanical treatment.

The National Research Council (1994) recognizes vegetation as one of the three pillars of land health. Biotic integrity is one of the most crucial factors in determining vegetation health. The Council defines biotic integrity as: "The capability of the site to support characteristic functional and structural communities in a context of normal variability, to resist loss of this function and structure due to disturbance, and to recover following disturbance." Maintaining the biotic integrity of rangelands and forests promotes site stability, and preserves soil and natural hydrologic function.

### **2.17.1 Desired Future Condition**

Vegetation would consist of healthy, native plants, growing in characteristic alliances and associations. Local and regional ecosystems would demonstrate biotic integrity and abundant biological diversity. This will enrich the ecosystem and support the human experience.

### **2.17.2 Goal**

Vegetation would achieve and maintain its capacity to support natural function and biotic integrity within the context of normal variability. Therefore, plant communities would be sufficiently resilient to resist loss of structure and function resulting from disturbance and adequately recover following such events.

### **2.17.3 Objectives**

Vegetation (native, special-status, and desirable non-native plants) would exhibit vigorous, diverse, and reproductively successful populations with adequate nutrient cycling and energy flow. Plant communities will be maintained or restored (where practicable), to avoid communities becoming at risk or unhealthy. This will include:

- Maintenance of currently ‘Healthy’ vegetation (307,015 acres or 30% of the management area) and those communities rated ‘Healthy, Lacking Key Attributes’ (328,500 acres or 33% of the management area).
- Work towards rehabilitation and restoration (where practicable) and protection of vegetation ‘At Risk’ of becoming unhealthy (27% of the management area).
- Work towards rehabilitation and restoration (where practicable) of vegetation that is ‘Unhealthy’ (9% of the management area has unhealthy terrestrial vegetation alliances, associations, and ecological sites).

### **2.17.4 Criteria for Meeting Objectives**

BLM policy for vegetation management requires adherence to the land health standards, particularly Standard 5 (biodiversity). The following is recommended:

- Habitats include variability in vegetation structure, seral stage, and patch size favorable for maintaining viable and diverse populations of wildlife.
- Most plant species demonstrate a variety of age classes.
- Vigor is adequate to maintain desirable levels of plant and animal species so that reproduction and recruitment will be assured when conditions are favorable.
- The distribution of plant species—and their characteristic habitats—is sufficient to ensure successful reproduction and recovery from localized catastrophic events.
- Natural disturbances regimes, particularly fire, are present but not catastrophic.
- Non-native plant and animal species are present at, or reduced to, acceptable levels.
- Plant and animal habitats are sufficient to support viable and diverse populations of desirable species, and be interconnected with other, similar, habitat areas for the purpose of genetic exchange.
- Organic materials (plant litter and standing dead vegetation) are present in sufficient quantity for site protection and decomposition in order to replenish nutrients and maintain soil health.

### **2.17.5 Legislative, Regulatory, and Policy Direction**

#### **2.17.5.1 Legislation**

- The Federal Land Policy and Management Act (1976), as amended
- The National Environmental Policy Act

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- The Public Rangelands Improvement Act (1978)
- The Endangered Species Act (1973), as amended, (16 U.S.C 1531 et seq.)
- BLM Manual 4180—Rangeland (Land) Health Standards
- BLM Manual Supplement, California State Office Handbook H-1745—Native Plant Materials Handbook, release CA 1-243, (09/13/01)
- BLM Manual 1745—Introduction, Transplant, Augmentation, and Re-establishment of Fish, Wildlife, and Plants
- Master MOU between the California Department of Fish and Game and the USDI-Bureau of Land Management

### 2.17.5.2 Regulation

#### 43 CFR

Subparts 4180.1 and 4180.2 direct application of BLM's standards for land health and require that vegetation meet, or be making significant progress toward meeting, the standards for land health—including biotic integrity and associated standards—while simultaneously supporting appropriate uses of the land. "Appropriate uses" are those found to be so under the process established in NEPA. Such uses do not adversely affect conservation of terrestrial vegetation. Moreover, they do not compromise healthy lands, restoration of lands that are healthy but lacking key attributes, protection of at-risk lands, or restoration of unhealthy lands.

### 2.17.5.3 Policy

#### BLM Manual 4180 (Land Health Standards) (2000)

Land health standard evaluations must (generally) be conducted on fifth-level (40,000 to 250,000 acres), or larger, watersheds. However, they are done on a priority basis—high-priority watersheds taking precedence over low-priority watersheds. Progress toward achieving land health standards must also be reported on a regular basis. Where significant progress is not being made, remedial action must be taken as soon as possible. Where livestock grazing is concerned, this means as soon as practicable, but no later than within two years.

### 2.17.6 Proposed Management Actions Common to All Vegetation Alliances

- Ecosystem-based planning, implementation, and monitoring will be utilized to assess vegetation health.
- Sage-grouse habitat will be managed under the guidelines of the Conservation Strategy for Sage-Grouse (*Centrocercus urophasianus*) and Sagebrush Ecosystems within the Buffalo-Skedaddle Population Management Unit (Northern California Sage-Grouse Working Group, 2006) (see Appendix L).
- Whenever possible, locally gathered, native seed will be used for all seeding or re-seeding projects. However, if local native seed is not available, or cannot be gathered in time, non-local native seed, or non-native seed, may be used, with the approval of the BLM state director.
- Wildland fire emergency stabilization and rehabilitation projects will be completed in a manner that ensures ecosystem health. Natural regeneration for site-rehabilitation will be used following fire, where this appears adequate and would not lead to proliferation of weeds. Where assessment shows a need, re-seed with native vegetation, if possible.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Implementation (project-level) planning will be conducted on a watershed basis. Management actions that maintain biodiversity and vigor of vegetation alliances and associations will be emphasized.
- Sustainable grazing strategies and periodic disturbance will be used to maintain plant vigor over the long term. Changes to grazing management will be made where grazing practices are not conducive to the long-term maintenance of rangeland health. Prescribed burns and wildland fire use will be employed to mimic natural fire regimes.
- All vegetation treatments will be evaluated with regard to rehabilitation requirements, especially noxious and invasive weed management.
- Livestock salting will not be allowed within ¼ mile of springs, meadows, streams, archaeological sites, and aspen areas. Location of salting stations would be determined by BLM in consultation with livestock permittees.
- Areas burned by wild or prescribed fire would be rested from livestock grazing for a minimum of two growing seasons. Decisions to re-open burned areas to grazing would be based on monitoring and assessment. Areas may be re-opened in less than two growing seasons only if such use can be shown to meet resource management objectives of the fire recovery plan specific to that site.

### 2.17.7 Proposed Management Actions

Table 2.17-2 outlines the goals for vegetation treatments to be implemented in order to maintain and/or restore plant communities within each vegetation alliance. Management would focus on maintaining 'Healthy' and 'Healthy, Lacking Key Attributes' vegetation, and restoring 'At Risk' vegetation (where technologically and economically feasible). Actions would focus on the characteristic functional/structural groups of vegetation alliances and associations identified for particular ecological sites. Functional/structural groups include the native perennial grasses and overstory shrubs which define the plant community. Biological crusts would be considered indicators of particular alliances and associations endemic to a site.

Restoration of degraded or decadent shrub-steppe communities will be prioritized in areas that will quickly recover to the desired plant community, and in areas where restoration would enhance important wildlife habitat (i.e., riparian areas, pronghorn kidding grounds, and sage-grouse brood rearing sites).

Prescriptive treatments that will be utilized (individually or as a combination) to maintain or restore plant communities include:

1. Controlled grazing by livestock and wild horses: Livestock grazing will be controlled through a variety of site-specific measures to improve land health. Allotments and pastures within will continue to receive periodic rest or deferment during the growing season each year. Livestock distribution patterns will be improved through a combination of new fences and/or water developments. Wild horse numbers will be kept within appropriate management levels.
2. Mechanical and/or manual treatments: Mechanical equipment will be used to suppress, inhibit, or control herbaceous and woody vegetation. BLM uses wheeled tractors, crawler-type tractors, mowers, or specially designed vehicles with attached implements for such treatments. Manual equipment includes chain saws and axes.
3. Prescribed fire: Planned, deliberately ignited fires will be set by resource managers in order to accomplish resource management objectives, often used to remove excessive woody plants.
4. Seeding or planting: Restoration of site-specific areas may involve seeding or planting the appropriate species for the area, to facilitate reestablishment of native vegetation, and for erosion control.

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

5. Forest improvement practices: Forestry practices include species and stocking control (i.e., preferred tree species and desired optimal density), thinning, wildfire suppression, plus insect and disease control.
6. Riparian improvement practices: Riparian areas will be maintained through improved livestock management. This includes the following intensive grazing strategies with routine monitoring and adjustments for drought; range improvements (fences, offsite water, new water pumping technologies including solar and wind), herding; season of use adjustments; and riparian pastures or exclosures. In some cases bioengineering practices may also be employed.
7. Integrated Weed Management (IWM): The IWM program employs a combination of methods designed to provide flexibility in dealing with the dynamic character of the noxious weed problem. Treatments include mechanical, chemical, biological, and manual means and include pre-treatment and post-treatment surveys to determine need, locate problem areas, and assess treatment effectiveness.
8. Wildland Fire Management AMR: Wildland fires will be managed according to the “appropriate management response”, which is a specific and appropriate pattern of actions designed to ensure public and firefighter safety while achieving resource objectives. AMR may encompass the entire spectrum of tactical options--from monitoring the fire to aggressive suppression.

**Table 2.17-2 Proposed Vegetation Treatments by Vegetative Alliance and Land Health Rating**

Vegetation Alliance	Healthy or Proper Functioning Condition		Healthy, Lacking Key Attributes		At Risk		Unhealthy or Non-Functioning	
	Acres	Treatment Type	Acres	Treatment Type	Acres	Treatment Type	Acres	Treatment Type
Coniferous Forest	14,000	Forestry Improvement	4,000	Forestry Improvement	4,000	Forestry Improvement	0	NA
Juniper Woodlands	0	NA	4,000	Appropriate Mgt. Response; Prescribed fire; Forestry Improvement	9,837	Appropriate Mgt. Response; Mechanical treatment; Integrated Weed Management	7,000	Appropriate Mgt. Response; Mechanical treatment; Integrated Weed Management
Aspen/Oak/Mountain mahogany Woodlands	1,000	Controlled grazing (livestock and wild horses); Prescribed fire; Mechanical treatment	3,000	Controlled grazing (livestock and wild horses); Prescribed fire; Mechanical treatment	200	Prescribed fire; Mechanical treatment; Controlled grazing (livestock and wild horses)	0	NA
Shrub-Steppe	279,000	Controlled grazing (livestock and wild horses); Appropriate Mgt. Response	300,000	Controlled grazing (livestock and wild horses); Appropriate Mgt. Response; Prescribed fire	100,000 – 150,000	Prescribed fire; Mechanical treatment; Controlled grazing (livestock and wild horses)	4,000 - 8,000	Integrated Weed Management; Seeding/Planting <sup>2/</sup>
Shrub-Steppe with Juniper Encroachment	6,000	Controlled grazing (livestock and wild horses); Prescribed fire; Mechanical treatment	16,000	Mechanical treatment; Prescribed fire; Juniper control	32,000	Mechanical treatment; Prescribed fire; Juniper control	10,000	Mechanical treatment; Prescribed fire; Integrated Weed Management <sup>2/</sup>
Perennial Grasslands	1,000	Controlled grazing (livestock and wild horses)	5,000	Controlled grazing (livestock and wild horses)	100	Seeding/Planting; Controlled grazing (livestock and wild horses); Integrated Weed Management	10- 50	Integrated Weed Management; Seeding/Planting <sup>2/</sup>
Annual Grasslands <sup>1/</sup>	0	NA	3,000	Controlled grazing (livestock and wild horses); Integrated Weed Management	200 - 800	<sup>2/</sup> Integrated Weed Management	500 - 3000	Integrated Weed Management; Seeding/Planting <sup>2/</sup>
Riparian/Wetlands	120 (63 miles)	Controlled grazing (livestock and wild horses)	0	NA	30 (34 miles)	Controlled grazing (livestock and wild horses); Riparian Improvement Practices; Integrated Weed Management	0	NA

<sup>1/</sup> Annual grasslands are communities previously dominated by perennial grasses, that have since degraded across an ecological threshold to a steady-state community comprised of non-native invasive grasses and forbs.

<sup>2/</sup> Adequate technology is not currently available to successfully complete total restoration of these lands to native perennial species.

NA = Not applicable

### 2.17.7.1 Juniper Woodlands

There are 31,062 acres of juniper woodlands mapped in the ELFO management area. Canopy cover exceeds 20% for the majority of this area (20,929 acres); however, 6,907 acres of this is ‘Unhealthy’ woodland, where canopy cover exceeds 35%. Native or true juniper woodlands are characteristic of Orhood, Buckbay, Whiting, and Fiddler soil types. Western juniper will be preserved on these sites and managed for the major (successional) stages of woodland development. Understory health would also be maintained (as outlined in Table 2.17-3).

In sagebrush-steppe areas where juniper has encroached into the plant community, aggressive abatement of invasive juniper will be pursued. Juniper-encroached areas would be reconverted to historic sagebrush rangeland, however, small amounts of juniper would be retained on a few sites to preserve biodiversity and wildlife habitat.

**Table 2.17-3** Soil Series that Support Juniper Woodlands and Woodland Development Stages

Soil Series	Immature Woodlands			Mature Woodlands			Over-Mature Woodlands		
	Height (feet) <sup>1</sup>	Canopy Cover (%)	Influence on Understory	Height (feet) <sup>1</sup>	Canopy Cover (%)	Influence on Understory	Height (feet) <sup>1</sup>	Canopy Cover (%)	Influence on Understory
Orhood	4.5–10	10–15	Moderate	10–26	15–20	Strong	26+	>25	Sparse or Absent
Buckbay	4.5–10	10–15	Moderate	10–24	15–20	Strong	24+	>25	Sparse or Absent
Whiting	4.5–10	10–15	Moderate	10–25	15–20	Strong	25+	>25	Sparse or Absent
Fiddler	4.5–10	10–15	Moderate	10–20	15–20	Strong	20+	>25	Sparse or Absent

<sup>1</sup> Based on the average height of dominant and co-dominant trees at the applicable stage of woodland development (i.e., immature, mature, over-mature).

### 2.17.7.2 Other Woodlands

#### *Quaking Aspen*

Proposed management actions will include treatments to maintain the 1,191 acres of ‘Healthy’ and ‘Healthy/Lacking’ aspen stands, and the restoration of 210 acres of At Risk aspen communities. Areas that are in a healthy condition will be grazed in a manner that provides an opportunity for aspen regeneration, herbaceous perennial plant seedling establishment (grass and forbs), and facilitates understory vigor. Site specific treatments will include prescribed burning, mechanical, manual, and/or chemical treatments, individually or in combination.

Using site-specific treatments on sites rated ‘At Risk’ is expected to result in beneficial effects on aspen communities by tailoring the appropriate treatment used to soil properties (taxonomy, pH, exchangeable potassium, organic matter, and nutrients), stand type (i.e., non-regenerating, conifer encroached, regenerating clones), and condition of the aspen stand.

Cutting and burning—separately or in combination—will be used in aspen stands with conifer encroachment to create early-succession conditions. Cutting and burning is beneficial because it promotes “suckering” and creates diverse, multi-aged stands (Shepperd, 1996.)

### ***Black Oak Woodlands***

Black oak woodlands are found on 1,298 acres within the planning area, and are 100% rated as ‘Healthy, Lacking’. The understory is composed of a moderate to open shrub and grass layer. Dominant species are Jeffrey pine, ponderosa pine, and California black oak. The plant community will be managed for a diversity of species, including curleaf mountain mahogany, big sagebrush, rubber rabbitbrush, serviceberry, blue wildrye, squirreltail, Sandberg’s bluegrass, yarrow, hot rock penstemon, mules ears, and arrowleaf balsamroot. Treatments to maintain or improve oak woodlands will be through prescribed fire or mechanical treatments to reduce conifer encroachment and to provide canopy gaps.

### ***Curleaf Mountain Mahogany***

Approximately 1,500 acres of this association are found on BLM-administered lands in the ELFO area, and 100% of the stands are rated as ‘Healthy’ or ‘Healthy, Lacking.’ In select older, decadent stands a combination of low-intensity burns and mechanical treatments will be used to promote seedling and sapling survival. Fire will be used to create conditions favorable for seedling establishment.

## **2.17.7.3 Sagebrush-Steppe Communities**

A total of 599,568 acres (64%) of big sagebrush and low sagebrush communities that are rated as ‘Healthy’ or ‘Healthy, Lacking’ would be maintained and improved through controlled grazing by livestock and wild horses. Areas that are in a healthy condition will be grazed in a manner that provides an opportunity for herbaceous perennial plant seedling establishment (grass and forbs), and facilitates understory vigor. Livestock grazing deferment or periodic rest would be required on 60 – 80% of all grazing allotments and 80 – 90% of all grazed lands annually. This will assure that forage plants and communities are allowed time to recover from grazing stresses.

Land health assessments show that 28% of sagebrush-steppe associations are rated as ‘At Risk’. Plant communities rated ‘At Risk’ of becoming unhealthy are typically characterized by the degradation of function/structural groups (perennial bunch grasses, perennial forbs and shrubs) and the presence of invasive plants (predominantly cheatgrass and western juniper).

Encroachment of sagebrush-steppe communities by western juniper (juniper under 180 years old) has significantly altered the composition and function of many acres of these communities. The PRMP promotes an ecological approach to the restoration of sagebrush-steppe and mixed shrub communities by approximating the natural fire régime in these fire-dependent alliances—plus other measures—to encourage succession toward the desired plant community. The AMR to wildland fire suppression will be established in these communities, resulting in an improvement of fire regime condition class.

Restoration of plant communities dominated by invasive juniper and/or decadent shrubs would be a high priority and treated according to the following schedule:

**Table 2.17-4** Proposed Restoration Treatments for Sagebrush Sites Encroached by Western Juniper

<b>Treatment Method</b>	<b>Treated Area (acres/year)</b>
Mechanical	500 to 3,500
Prescribed fire	0 to 4,500
Chemical	50 to 500
Biological	50 to 1,500
Total	600 to 10,000

Mechanical juniper shearing and chipping operations would comply with conservation measures relating to slope, allowable disturbance, limb removal, trees to be left, stump height, fuel concentrations, exclusion areas, landings, noxious and invasive weed management, equipment maintenance, fence repair, site rehabilitation and fire safety.

All chemicals used in juniper reduction efforts or to discourage noxious weed infestation following those efforts, will be approved for use on public lands and follow all applicable guidelines for use of chemicals on these lands.

Many lower elevation Wyoming sagebrush and low sagebrush communities are at risk of type-conversion to cheatgrass. These plant associations have a fire return interval of 10 years or less. There is a high potential for stand-replacing wildfires to totally convert these habitats (important for sage-grouse and pronghorn) to plant associations dominated by cheatgrass.

Areas to be restored that have been previously burned will be seeded with native sagebrush of the subspecies and ecotype that previously existed at the site, native grass, and forb species in order to accelerate recovery (where deemed practicable). In the absence of fire, areas with excessive sagebrush canopy cover will be thinned using mechanical or chemical means, and then reseeded with native perennial grasses and forbs.

When restoring habitats dominated by Wyoming and mountain big sagebrush with sage-grouse habitat, treatments will total no more than 20% of the total habitat area within a fifth-level (i.e., 40,000 to 250,000 acres) or larger watershed during a 30-year period, regardless of treatment method used. Areas burned by wildfire would also be included in the 20% maximum. Considering the restoration potential for functional/structural groups' characteristic of these habitats; biotic integrity and biodiversity parameters (i.e., meeting land health standards) could be achieved within 15 to 20 years, under otherwise favorable conditions.

Land health assessments show that 8% of sagebrush-steppe associations are rated as 'Unhealthy'. These communities have crossed an ecological threshold to another steady state plant community, such as annual grasses and forbs. Recovery of these 'Unhealthy' sagebrush-steppe communities involves a highly expensive human intervention requiring a combination of mechanical and other treatments. Seeding success in these communities has proven to be low to very low due to poor soil conditions, low available water holding capacity, and little annual precipitation during the growing season (Alexander III, 2003).

Few methods are effective in restoring these communities at low elevations and precipitation zones. Tightly controlled livestock grazing, prescribed fire, and seeding of native plants—coupled with full suppression of high-intensity wildfires—can slow, and in some cases reverse, type-conversion to exotic annual grasslands. Due to the difficulty of restoring these communities, 'Unhealthy' communities would be restored only where deemed to be necessary for resource protection, or where chance of success is relatively high.

#### **2.17.7.4 Perennial Grasslands**

Approximately 28,466 acres of herbaceous and grassland communities occur in the ELFO area on BLM-administered lands. These are primarily seasonally dry meadows and meadow and seep communities. (The latter are described under Chapter 2.19 Wetland and Riparian Associations). There are also 5,581 acres of the pasture and cropland type mapped on BLM-administered lands in the ELFO area. Pasture and cropland consists of agricultural crops or fallow fields, crested wheatgrass seedings associated with weedy annuals, or repopulating shrubs removed by fire and reseeded to crested wheatgrass. This community is usually found around the Madeline Plains, in Honey Lake Valley, and in Dry Valley at elevations of 4,000–5,000 feet.

A total of 5,978 acres (96%) of perennial grasslands that are rated as ‘Healthy’ or ‘Healthy, Lacking’ would be maintained and improved through controlled grazing by livestock and wild horses. Areas that are in a healthy condition will be grazed in a manner that provides an opportunity for herbaceous perennial plant seedling establishment (grass and forbs), and facilitates plant vigor. Livestock grazing deferment or periodic rest would be required on 60 – 80% of all grazing allotments and 80 – 90% of all grazed lands annually.

Land health assessments show that only 1% of perennial grasslands are rated as ‘At Risk’. Plant communities rated ‘At Risk’ of becoming unhealthy are typically characterized by the degradation of function/structural groups (perennial bunch grasses, perennial forbs and shrubs) and the presence of invasive plants (predominantly cheatgrass).

Land health assessments show that 3% of perennial grasslands are rated as ‘Unhealthy’. These communities have crossed an ecological threshold to another steady state plant community, such as annual grasses and forbs. Recovery of these ‘Unhealthy’ grassland communities involves a highly expensive human intervention requiring a combination of mechanical and other treatments.

#### **2.17.7.5 Annual Grasslands**

Annual grassland communities are communities previously dominated by perennial grasses, which have since degraded across an ecological threshold to a steady-state community comprised primarily of non-native invasive grasses and forbs. A total of 3,007 acres of annual grasslands that are rated as ‘Healthy, Lacking’ would be maintained and improved through controlled grazing by livestock and wild horses. These areas will be grazed in a manner that provides an opportunity for herbaceous perennial plant seedling establishment (grass and forbs), and facilitates plant vigor. Livestock grazing deferment or periodic rest would be required on 60 – 80% of all grazing allotments and 80 – 90% of all grazed lands annually.

Land health assessments show that the majority of annual grasslands are rated as ‘At Risk’ (17%) and ‘Unhealthy’ (66%). These communities have crossed an ecological threshold to another steady state plant community, such as annual grasses and forbs. Recovery of these ‘Unhealthy’ grassland communities involves a highly expensive human intervention requiring a combination of mechanical and other treatments. Tightly controlled livestock grazing, prescribed fire, and seeding of native plants—coupled with full suppression of high-intensity wildfires—can slow, and in some cases reverse, type-conversion to exotic annual grasslands. Herbicides and other chemical compounds effective in selectively controlling annual grasses may soon be approved for use by BLM on public lands under a separate programmatic NEPA review process.

## 2.18 Noxious Weeds and Other Invasive Species

Noxious weeds and other invasive plants are degrading wildland ecosystems at an ever-increasing rate. Such plants pose a serious threat to species diversity and land health and are major factors in reducing productivity and the value of both native and agricultural lands. If eliminating or controlling these aggressive plants is not made a priority, this trend will only worsen. The ELFO is committed to dealing with this problem by coordinating its efforts with other jurisdictions using an IWM approach. This section addresses both weeds that are legally defined as “noxious” and other invasive plants, and addresses management actions for both categories of weeds. This includes a prevention schedule, legal direction, and management activities designed to maximize the effective and efficient use of weed management resources. Table 2.18-1 lists the primary noxious weeds and occurrences within the field office area. The distribution of noxious weeds within the ELFO is depicted on Map VEG-3.

### 2.18.1 Desired Future Condition

Ecosystems throughout the management area would be composed of diverse populations of healthy native plants. Populations of noxious weeds, or invasive and undesirable plants, would be eliminated or controlled. Where such plants cannot be eliminated, proliferation would be arrested by decreasing plant density and controlling infestation perimeters. Management protocols and actions would be successful in eliminating or minimizing the introduction of new weed species.

### 2.18.2 Goal

Manage public lands to maintain, restore, or enhance diverse populations of healthy native plants. Eliminate or control noxious weeds, invasive species, and poisonous plants to preserve or improve wildlife habitat, forest and rangeland productivity, and land health generally. Review BLM project proposals before implementation to ensure that they contain adequate measures to prevent introduction and/or proliferation of noxious weeds. Projects must also incorporate effective (integrated) pest management elements.

### 2.18.3 Objectives

Employ the following strategies and methods, described in “Partners Against Weeds; an Action Plan for the Bureau of Land Management,” to achieve the weed management goal for the ELFO.

1. Educate and heighten awareness of the public and BLM staff
2. Coordinate and cooperate with other weed management jurisdictions
3. Employ integrated weed management techniques
4. Prevent introductions and detect infestations
5. Monitor and evaluate control efforts

### 2.18.4 Legislative, Regulatory, and Policy Direction

Numerous laws, regulations, and policies govern management of noxious weeds on public lands, including:

- California Vegetation Management Final EIS (BLM 1988)
- Partners Against Weeds, An Action Plan for the Bureau of Land Management (BLM 1996)

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Environmental Assessment, Integrated Weed Management Program (BLM EA Number CA 350-04-01, 2004)
- Environmental Assessment and Integrated Weed Management Program for BLM's Surprise and Eagle Lake Field Offices—Nevada Lands Portion (2004)
- Current OSHA “material safety data sheets” and herbicide product labels
- Federal Land Policy and Management Act (1976)
- Public Rangelands Improvement Act (1978)
- Carlson-Foley Act (1968)
- Federal Noxious Weed Act (1974), as amended by Sec. 15 (“Management of Undesirable Plants on Federal Lands”) (1990)
- Final EIS, Vegetation Treatment on BLM Lands in Thirteen Western States (1991)
- Final EIS, Northwest Area Noxious Weed Control Program (BLM 1985)
- Final EIS for Noxious Weeds-Supplemental (BLM 1987)
- Department of the Interior Manual 517 (concerning compliance with the Federal Insecticide, Fungicide, and Rodenticide Act (1972), as amended (1988))
- Department of the Interior Manual 609
- BLM Manual 9011 and Handbook H-9011-1
- BLM Manual 9014
- BLM Manual 9015

### 2.18.5 Proposed Management Actions

To minimize and prevent the spread of noxious weeds during the construction and use of roads, facilities, trails, ROWs, or other surface-disturbing activities, the ELFO would implement the following general measures that are described in *Partners against Weeds* (BLM 1996) and the *National Invasive Species Management Plan* (National Invasive Species Council 2001):

- Prevent new species from being established by managing the pathways of dispersal (vehicles, people, gravel and fill material, and seed material).
- Support early detection of new infestations or individual occurrences.
- Implement control and management strategies to prevent spread or lessen effects of the infestation. Depending on the species and degree of infestation, the ELFO may implement an IWM approach that involves eradication, population suppression, or limiting dispersal of an invasive species. Selection of an IWM strategy for a particular area would depend on the species and environmental effects of available control methods. These treatments may include a combination of manual, chemical, biological, and cultural methods.
- Restore disturbed areas to keep invasive species from spreading or causing greater environmental disturbances. Restoration would involve the use of locally suitable native species. Ideally, the seed mix would be certified weed-free and would consist of locally collected plant material.
- Educate contractors and other persons on construction projects on noxious weed issues and methods that should be implemented to avoid seed or plant part dispersal. These methods may include

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- reducing the extent of disturbances,
- cleaning vehicles after leaving a known infestation (and, in some cases, before construction), and
- restoring areas immediately after construction.
- The IWM program will employ a combination of treatment methods designed to provide flexibility in dealing with the dynamic character of the noxious weed problem. Treatments include mechanical, chemical, biological, and manual means and include pre-treatment and post-treatment surveys to determine need, locate problem areas, and assess treatment effectiveness. Treatments will focus on restoration of sites to native plant communities.
- Known infestations will be evaluated annually and treated or re-treated when necessary. BLM projects will be developed according to the ELFO prevention schedule, and coordinated with local IWM partners.
- Identify noxious weed infestations throughout the entire ELFO management area, using the systematic inventory and mapping guidelines provided in “Guidelines for Coordinated Management of Noxious Weeds in the Greater Yellowstone Area” (USDA and USDI 1992).
- Employ actions that eliminate or minimize the need to treat vegetation, considering management objectives for the site.
- Develop a noxious weed training program for (appropriate) ELFO personnel using technical reference “Partners Against Weeds, An Action Plan for the Bureau of Land Management” (BLM 1996, page 11) and the “Eagle Lake Field Office Prevention Schedule for Noxious Weeds.”
- Develop and implement public outreach programs to improve understanding of the need to control existing populations and prevent weed introductions.
- Review all project proposals prior to implementation to determine IWM needs.
- Activities on BLM lands—including authorized uses (e.g., ROWs, livestock grazing, and timber sales)—would employ measures such as the following to achieve an optimal combination of IWM treatment methods. (See Appendix 5 of “Partners Against Weeds: An Action Plan for the Bureau of Land Management,” for specific guidelines [BLM 1996]).
  - Cultural measures
  - Physical controls
  - Biological controls
  - Herbicides
- Coordinate with local agencies in treating noxious weeds.
- Work with other IWM agencies, landowners, and concerned groups to establish weed management areas for coordinating noxious weed projects.
- Continue membership and active participation in the Lassen County Weed Management Area, Lassen County Special Weed Action Team, Plumas-Sierra Noxious Weeds Management Group, and the Nevada Cooperative Weed Management Area.
- Monitor treatment sites to determine effects on the target species, effects on non-target species, and assess recovery or invasion by other species.
- Conduct a yearly reevaluation of treatment procedures before making new IWM plans.

**Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

**Table 2.18-1** Noxious Weed Species and Extent of Occurrence

<b>Noxious Weed Species</b>	<b>Known Sites</b>	<b>Size (Net Acres)</b>
Bull thistle ( <i>Cirsium vulgare</i> )	1	1
Canada thistle ( <i>Cirsium arvense</i> )	26	7
Dalmatian toadflax ( <i>Linaria dalmatica</i> )	18	9
Dyers woad ( <i>Isatis tinctoria</i> )	3	1
Halogeton ( <i>Halogeton glomeratus</i> )	2	2
Hoary cress ( <i>Cardaria draba</i> )	5	2
Jointed goatgrass ( <i>Aegilops cylindrica</i> )	1	1
Mediterranean sage ( <i>Salvia aethiopis</i> )	16	544
Perennial pepperweed ( <i>Lepidum latifolium</i> )	66	103
Puncturevine ( <i>Tribulus terrestris</i> )	2	5
Russian knapweed ( <i>Acroptilon repens</i> )	21	33
Russian olive ( <i>Elaeagnus angustifolius</i> )	1	1
Salt cedar ( <i>Tamarix ramosissima</i> )	1	1
Scotch thistle ( <i>Onopordum acanthium</i> )	71	66
Spotted knapweed ( <i>Centaurea maculosa</i> )	4	16
Yellow starthistle ( <i>Centaurea solstitialis</i> )	30	118

Source: Noxious Weed Inventory, BLM ELFO, January 2007

## 2.19 Riparian-Wetland Associations

Riparian and wetland communities in the ELFO area occur along the edges of and within creeks, lakes, and playas. Wetland and riparian communities can include marshes, swamps, lakeshores, wet meadows, estuaries, and springs or seeps.

Riparian-wetland areas make up less than 1% of the total land base; however, they are some of the most productive and highly prized resources on BLM-managed public lands. Wildlife species use riparian areas proportionately more than any other type of habitat. In addition, riparian areas are highly prized for their economic and natural values and other uses, which include livestock grazing, recreation (hiking, fishing, photography, biking, and off-highway vehicle use), Native American cultural uses, and educational experiences for students.

The ELFO interdisciplinary team has completed more than 200 site-specific assessments of streams and creeks and springs and seeps from 1995 to 2002 (see Map WATER-2). The team consisted of a variety of staff specialists, which included representation from range management, vegetation, botany, wildlife biology, soil and hydrology, and archaeology. The following table summarizes that riparian assessment.

Table 2.19-1 shows more than 100 miles of flowing water and almost 200 acres of wetland or standing water that have been inventoried and assessed. In both flowing and standing riparian areas, most sites were found to be in PFC. Many sites were assessed as ‘Functioning at Risk’ but with an upward trend. When combined with PFC, these types show that more than 87% of the riparian sites and 71% of wetland sites are meeting or making progress toward meeting properly functioning condition and land health standards.

**Table 2.19-1** Summary of Wetland and Riparian Functioning Condition

Community Type	Proper Functioning Condition	Functioning at Risk			Non Functional	Not Known	Total
		Trend Up	Trend Not Apparent	Trend Down			
Riparian - flowing water (miles)	62.76	25.14	8.75	0.92	0	3	100.57
Riparian condition class (percent)	63	24	10	1	0	2	100
Wetland - standing water (acres)	120.7	8.28	31.59	18.72	0	0	179.24
Wetland condition class (percent)	65	6	17	10	0	2	100

Source: BLM Riparian/Wetland Inventory 1995 – 2002.

Many sites rated as ‘Functioning at Risk’ with an ‘upward trend’ that receive improvements in management would recover and stabilize quickly. Many of the ‘Functioning at Risk’ sites would also move toward PFC on the basis of past inspections and reassessments.

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

Most sites are moving toward a hydrologic condition that is satisfactory and/or fully functioning. Management efforts have been focused on riparian sites that are assessed as functional at risk with either a static or downward trend. These sites are the highest management priority because without management we can expect a decline in the riparian resource. Photo studies and other documentation (site reassessments) have shown the ability of these sites to improve through changes in management including protective fencing, where needed.

Some riparian areas that are dominated by invasive annual grasses and noxious weeds have resisted natural recovery. Chemical herbicides and mechanical reseeding may be needed to allow native plants to reestablish.

### **2.19.1 Goal**

Maintain, restore, or improve riparian vegetation, habitat diversity, and hydrologic stability to achieve healthy, productive riparian areas and wetlands. Manage for public land values such as water, cover, structure, and forage, which are needed to meet the life history requirements of fish and wildlife, public recreation and aesthetics, water quality and quantity, and livestock forage and water.

### **2.19.2 Objectives**

Move toward PFC on most sites. The main objective is to have all riparian areas in or making significant progress toward PFC and meeting land health standards throughout the field office area. The goal of PFC is not the ultimate end point of riparian management but a step toward a fully functioning system with a desired plant community that provides watershed values, wildlife habitat, and the water and forage needs of animals.

The desired future condition would be determined at the implementation or activity plan level, which includes AMPs and other planning documents.

### **2.19.3 Proposed Management Actions**

The Preferred Alternative will emphasize inventory, recovery, and achieving measurable progress toward PFC or DFC on 35 miles of perennial and intermittent streams and 33 acres of riparian/wetland areas. Emphasis will be on adjusting existing grazing strategies where livestock grazing is limiting progress toward land health goals, PFC, and DFC. Once the ecological potential of the riparian community is determined, specific riparian management objectives would be established.

This program will include the following:

- intensive grazing strategies with routine monitoring and adjustments for drought,
- range improvements (fences, offsite water, new water pumping technologies including solar and wind, herding, and
- season of use adjustments,
- maintaining existing exclosures, and
- adding protective fencing where needed.

Livestock salting sites will be located ¼ mile from riparian areas to discourage damaged by livestock.

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

BLM will focus its effort on management changes on sites now 'Functioning at Risk' with a static to upward trend. Site assessments and photo studies have shown that these sites respond positively to management changes. BLM will continue its existing management where sites are being protected and are recovering and progress is being made, as shown by improved condition and upward trend.

BLM will complete riparian inventory or assessments and begin reassessing priority areas (functioning at risk static and downward trend) and adjust management as identified. BLM will also begin developing desired future condition on riparian sites with an emphasis on 'At Risk' areas. The primary monitoring technique will be reassessing condition based on Assessing Proper Functioning Condition (referenced in TR 1737-9 [BLM 1993] and 1737-11 [Lentic Riparian-Wetland Area Proper Functioning Condition Work Group 1998.]) Ongoing riparian photo studies will be continued within grazing allotments to document changes.

BLM will rebuild fenced exclosures not meeting current wildlife specifications, build new exclosures, and, if needed, increase the size of exclosures. Wild horse and burro concentration may require adjusting horse numbers and/or building more protection in areas not meeting or making progress toward land health standards. New fences will meet BLM specifications for wildlife passage and livestock control.

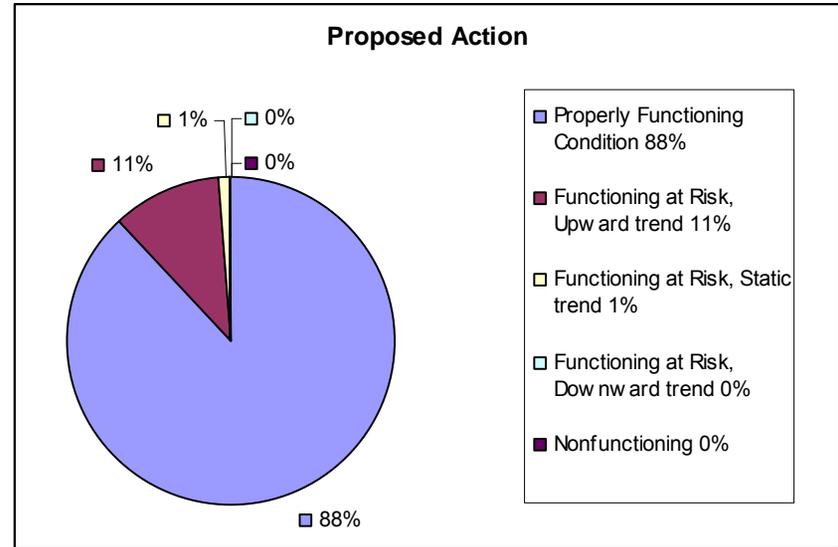
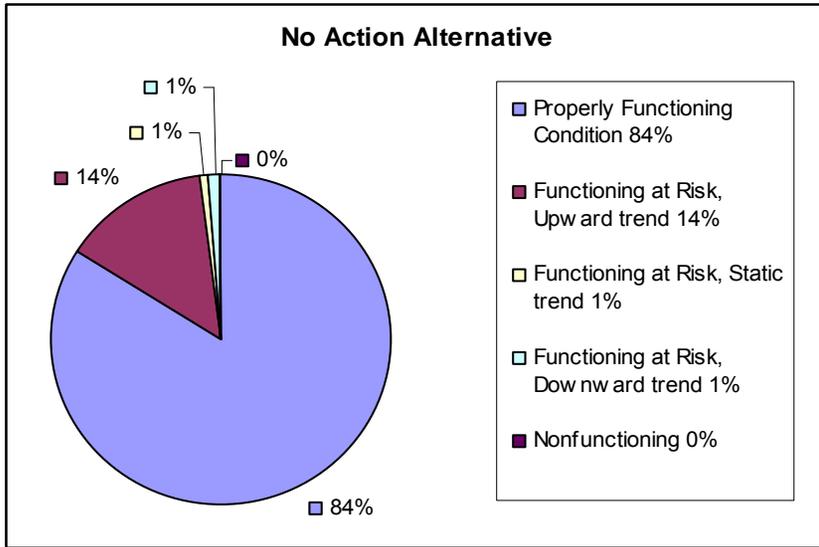
Riparian management would be conducted on a watershed basis, using an ecosystem approach. Interested landowners and other interested parties would be involved. Interdisciplinary teams would be used to inventory, monitor, and evaluate management of riparian/wetland areas.

Invasive western juniper and undesirable woody vegetation will be removed from riparian areas. Roads having a negative impact on riparian areas will be re-routed, eliminated, and/or rehabilitated.

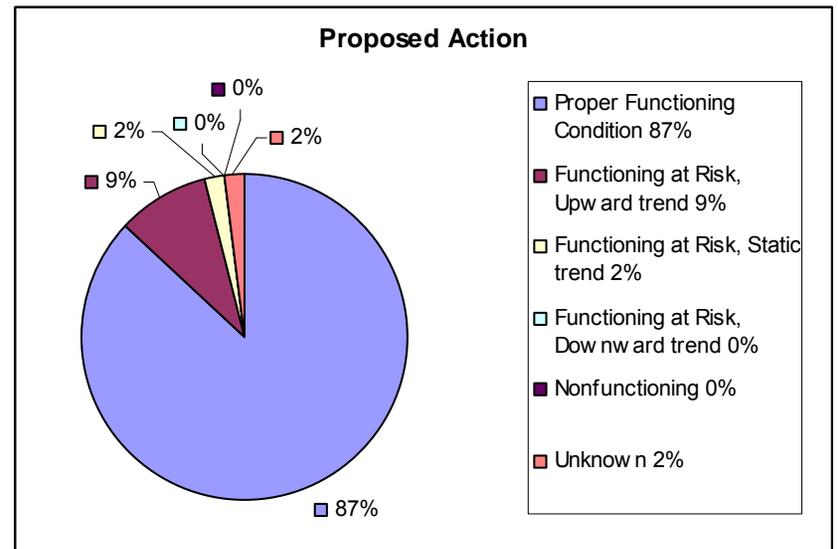
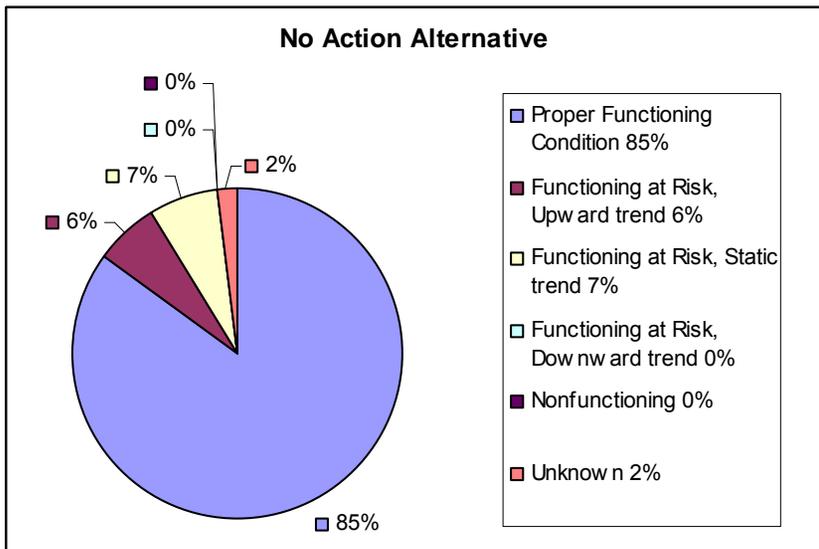
Figure 2.19-3 shows the projected changes to riparian and wetland condition classes, over the next 10 to 15 years, as a result of proposed management actions under the Preferred Alternative.

**Figure 2.19-3 Riparian Condition Classes**

**Lotic (Flowing Water) Sites**



**Lentic (Standing Water) Sites**



## 2.20 Special Status Plants

No populations of federally listed endangered or threatened plants have been found on lands administered by the ELFO. However, California, Nevada, and BLM special status plants do occur in the management area (see Map VEG-4).

### 2.20.1 Desired Future Condition

The management and enforcement authority of the ELFO would be used to protect and conserve endangered, threatened, and special status plants by maintaining critical habitats to ensure population survival.

### 2.20.2 Goal

Ensure that habitats and populations of special status plants are restored, maintained, and enhanced on public lands managed by the ELFO.

### 2.20.3 Objectives

Ensure that the reproductive viability of any special status plant is not affected by BLM management actions in a way that would contribute to its decline.

### 2.20.4 Legislative, Regulatory, and Policy Direction

- Endangered Species Act (1973)
- BLM Manual USDI BLM 2001-6840 - Special Status Species Management Release 6-121, BLM Manual, Washington D.C.
- California Endangered Species Act
- MOU between the USDA Forest Service; USFWS, USDI BLM, and USDI National Park Service and the U.S. Department of Commerce-National Marine Fisheries Service (1994)
- *Rangeland Health Standards and Guidelines for California and Northwestern Nevada Final EIS* (Appendix B)
- Native Plant Materials Policy, CA-BLM Manual Supplement 1745
- Species Management Guide for *Eriogonum crosbyae*, (Schoolcraft 1989)

### 2.20.5 Proposed Management Actions

- Protect habitats and populations of special status plants and maintain their reproductive viability so that BLM actions do not contribute to the need for future “listing” under the Endangered Species Act.

If a population of one or more of federally listed endangered or threatened plants species is found, the following measures would be taken:

1. Any viable population of a special status plant that is discovered will be protected and actively supported.
2. Project proposals must be reviewed before implementation to determine if management actions would adversely affect special status plants.
3. If a population of special status plants would be affected, the project must be modified according to recommendations of the California BLM’s special status plant policy (CA-BLM Manual Supplement

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

H-6840-1, “Special Status Plant Management”). The recommendations are designed to prevent actions that would be detrimental to special status plants, thus forestalling the need for future “listing” under the Endangered Species Act.

- Monitor populations and occurrences (of special status plants) as a yardstick for maintaining healthy habitats and populations.
- Conduct surveys to identify suspected and unknown populations/occurrences of special status plants.
- Develop management guidelines for known special status plant habitats as well as plant communities in which special status plants have a significant presence. Guidelines may be part of a grazing strategy or they may be developed under an integrated resource management plan, AMP, habitat management plan, or BMP. Specific biological evaluation would provide a framework to develop objectives for the conservation of special status plants and their habitats.
- Develop and employ conservation agreements or species management guides to protect and monitor special status plants.
- Conduct surveys for special status and special interest plants in proposed project areas, to locate populations and assess their size and health. Conduct these surveys at a time of year suitable for plant location and positive identification. If a population of special status plants is found, plan and implement suitable management interventions (avoidance or mitigation) prior to project implementation.
- Allow juniper reduction by mechanical means and issue commercial woodcutting permits within habitats occupied by special status and special interest plants; however, stipulations such as the following would be required:
  - Road construction must be minimized.
  - Rubber-tracked vehicles would be mandatory for cross-country travel.
  - Following harvest/treatment; access points must be closed and rehabilitated so that permanent ways are not established.
- Limit OHV use to designated roads and trails in the Fort Sage OHV area in order to protect sagebrush loeflingia (*Loeflingia squarrosa artemisiarum*), a special status plant.
- Attempt to acquire private lands where land use activities are contributing to the decline of special status or special interest plants.
- Manage special interest plants with the same degree of attention and initiative bestowed on special status plants. (The intent is to prevent their eventual decline from special interest to special status species.)

## 2.21 Visual Resource Management

Federal law requires BLM to protect scenic values on lands it administers. Field office personnel must conduct an inventory of visual resources and assign VRM classes in the course of preparing a PRMP. These are not only used in the planning process, but also guide future management actions. Visual resources are described and managed as one of four classes with the following resource management objectives.

**Class I:** The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes, but it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

**Class II:** The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

**Class III:** The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

**Class IV:** The objective of this class is to provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of attention. But every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements (form, line, color, and texture).

VRM classes have been determined under BLM's visual resource inventory process as specified in BLM Manual H-8410-1. The VRM inventory process involves:

- Scenic quality ratings
- Distance zones from specified viewing areas (roads, trails, camping areas and other use areas or observation points)
- Evaluation of visual sensitivity (i.e., identification of areas where there is significant public interest in retaining scenic qualities)

Information from the "Northeastern California Outdoor Recreation Market Analysis" (Tierney and Rosegard 2002) was also used in the VRM inventory. This report found that a high percentage of local residents (68%) as well as a very high percentage of (public land) visitors from elsewhere in northern California (82%) affirmed that: "maintaining the natural undeveloped appearance and vistas of the northeastern California and northwestern Nevada region is extremely important." This information—together with strong local interest in managing public lands for quality outdoor recreation—led to the assignment of 'High' to 'Moderate' sensitivity ratings for most public lands viewed from travel corridors and recreation activity areas. Moderate to high sensitivity ratings, combined with 'A' - and 'B'-ranked scenic qualities, on lands within three to five miles of public viewing areas (travel corridors, recreation areas, and homes) produced many VRM Class II and III designations throughout the management area.

Visual design principles must be incorporated in surface-disturbing projects, regardless of size or potential impact. The contrast rating process (BLM Manual 8431) is used as a tool for project design and also for (project) assessment during environmental review.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

Contrast ratings are required for high-impact projects or projects proposed for highly sensitive areas. Contrast ratings may also be used for other projects where they appear to be the most effective design or assessment tool. A visual assessment (briefly stated in narrative form) is completed for all other projects requiring an environmental assessment or environmental impact statement.

The purpose of the visual contrast rating is to determine if the project—as proposed—would meet VRM objectives for the VRM class designated in the PRMP. Since the overall goal is to minimize visual impact, mitigating measures will be incorporated wherever adverse contrasts can be reduced—including projects that have already met VRM objectives (BLM Visual Contrast Rating Manual H-8431-1, II D 4).

**Table 2.21-1** Degree of Visual Contrast Criteria with Corresponding VRM Class

Degree of Visual Contrast	Criteria	VRM Class That This Level of Contrast Would Meet
None	Element contrasts <sup>1/</sup> are not visible.	Class I
Weak	Element contrasts can be seen but should not attract attention.	Class II
Moderate	Element contrasts can be seen and begin to dominate the characteristic landscape.	Class III
Strong	Element contrasts are obvious and dominate the landscape.	Class IV

<sup>1/</sup>Element contrasts" refer to a visual contrast or contrasts of a project created by one or more characteristics of a (proposed) project. The visual contrast rating assessment procedure is a tool for evaluating whether noticeable contrasts would be created by the project's basic visual elements (i.e., form, lines, color, or colors, and texture) as determined from key observer viewpoints (i.e., places where the project is likely to be viewed).

If a proposed project cannot meet VRM objectives for the affected area, BLM can choose to do one of the following:

- Work with the proponent to modify the project so that VRM objectives are satisfied.
- Work with the proponent to find another location where the project can meet VRM objectives.
- Deny the project.
- Amend the PRMP to change the VRM class of the affected area so that the project can proceed.

Projects may be rated on a short- or long-term basis. In evaluating visual contrasts, short-term (up to five years) and long-term (beyond five years) contrasts may be evaluated if it appears that different results are likely over time. According to (VRM) contrast rating manual procedures, a project that does not meet VRM objectives in the short term can still be authorized if, in the opinion of the decision maker, the project's visual contrasts would meet VRM objectives established for the affected area over the long term.

### 2.21.1 Desired Future Condition

Public lands within the ELFO area will be managed so as to provide a range of protection for the existing landscapes. BLM's management will strongly emphasize (1) preserving and retaining much of the area in its current visual condition and (2) improving land health and the related natural appearance of the landscape. Protecting the existing visual character of the landscape ranges from VRM Class I (preservation), to Class II (retention of existing landscape character), to Class III (partial retention of the existing landscape character).

BLM will also manage public lands to allow for new developments that can significantly alter the character of the existing landscape if those projects are in areas classified as VRM Class IV areas (major modification of the existing landscape) or if the land use plan is amended to change restrictive VRM Class II and III areas

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

to Class IV. (In the ELFO area, the only VRM Class I designations apply to WSAs, and change of WSA status requires congressional action).

### **2.21.2 Goal**

Manage BLM lands so that actions conducted, authorized, or regulated by BLM meet the visual resource objectives established by this PRMP.

### **2.21.3 Objectives**

Designate (BLM) VRM classes for all lands under the jurisdiction of the ELFO. Manage these lands according to their respective VRM class objectives.

### **2.21.4 Legislative, Regulatory, and Policy Direction**

- Federal Land Policy and Management Act (1976), et seq.; Section 102(a)(8), Section 103 (c), Section 201(a), and Section 505 (a) (43 U.S.C. 1701)
- National Environmental Policy Act of 1969, et seq.; Section 101(b) and Section 102 (43 U.S.C 4321)
- Surface Mining Control and Reclamation Act (1977), et seq.; Section 102 (d) (30 U.S.C. 1201)
- BLM “Priorities for Recreation and Visitor Services,” (May 2003); page 19, Milestone 4
- BLM “Land Use Planning Handbook” (H-1601-1), (Mar. 11, 2004); Appendix C, page 11
- BLM Manual 8400, “Visual Resource Management”
- BLM Manual 8431-1, “Visual Contrast Rating”

### **2.21.5 Proposed Management Actions**

The existing character of the visual landscape will be protected under the following visual resource management classes: VRM Class I (preservation), Class II (retention of the existing landscape character), and Class III (partial retention of the existing landscape character). For the ELFO area, Class I designations apply only to WSAs, and change of the WSA status requires congressional action. Some lands would be managed under VRM Class IV criteria (major modification of the existing landscape) to permit new developments that would greatly alter the existing landscape. With sufficient justification, portions of Class II or III areas can be re-designated Class IV.

Lands throughout the planning area would be managed to meet VRM objectives according to their designated VRM class (shown below in Table 2.21-2 and on Map VRM-1).

**Table 2.21-2 Visual Resource Management Classes**

<b>Class</b>	<b>Total Area (acres)</b>
(Class I applies only to WSAs) <sup>1/</sup>	N/A
Class II	507,843
Class III	442,028
Class IV	72,896
<b>Grand Total (Classes II, III, and IV)</b>	<b>1,022,767</b>

<sup>1/</sup>VRM Class I objectives apply for all WSAs in the ELFO management area (380,359 acres). Class I objectives supersede other, underlying, class objectives. However, if a WSA is removed from wilderness study by Congress and returned to multiple-use management, the area will revert to its underlying VRM class. Because of uncertainty regarding wilderness designation, the table depicts only the underlying VRM class totals, to avoid duplication of acres displayed.

Manage the following areas according to VRM Class II objectives (other, unnamed Class II areas may be found on Map VRM-1):

- Segments of the Susan River, Willow Creek, Upper Smoke Creek, and Lower Smoke Creek that are eligible for WSR designation (BLM “Wild and Scenic Rivers Policy,” [Manual 8351.31]) would be managed under Class II objectives because of the high scenic quality along these rivers segments. Upper Smoke Creek is recommended as suitable for designation as a WSR in this PRMP and if designated by Act of Congress as a WSR, the area would be managed under VRM Class I designation. If the area is not designated as a WSR, management would return to VRM Class II as adopted in this PRMP.
- Eagle Lake Basin Special Recreation Management Area (SRMA)
- Bizz Johnson Trail SRMA
- Fredonyer Peak (northeast side of Eagle Lake)
- Willow Creek Canyon and the Tunnison WSA (underlying designation)
- Antelope Mountain, north of Susanville (the south side and portions of the east side)
- Observation Peak
- Spanish Springs Peak
- Upper Smoke Creek Basin
- Lower Smoke Creek Canyon
- Shaffer Mountain
- The Skedaddle and Amedee Mountains
- Shinn Mountain
- The Twin Peaks Area
- Buffalo Creek Canyons
- Dry Valley Rim escarpment
- Fort Sage Mountains
- The Five Springs/Cherry Mountain/Rush Creek Mountain area
- Some parcels along the northern Sierra escarpment
- Some isolated parcels in the Sierra Valley and in Plumas and Lassen National Forests

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

VRM Class II objectives would apply on the Nobles Emigrant National Historic Trail corridor in order to preserve the character of the surrounding landscape and traces of the trail. The area contains two “high potential” segments according to the *Comprehensive Management and Use Plan Final EIS for the California National Historic Trail* (NPS 1999). VRM Class II objectives would apply from the point where the trail enters BLM jurisdiction (northeast of Smoke Creek Canyon) then westward for 38 miles. A Class II corridor would be established to protect the trail’s natural setting so that visitors could experience a landscape little-altered since the time of the pioneers. The visual corridor would extend as much as three miles on either side of the trail in flatter terrain and up to five miles (or the limit of visibility) where land slopes upward from the trail.

West of the point where the trail intersects the 345-kV power line (near Highway 395) it enters a landscape dominated by smaller power lines, an abandoned railway grade, and Highway 395, then approaches the agricultural, residential, and business development of Honey Lake Valley. In this area, Class II standards would not apply. However, trail traces would still be protected from surface-disturbing activities under Section 106 of the NHPA. The surrounding area would be managed under Class III criteria.

Other historic trails would be managed under VRM classes established for the surrounding area. The following trail segments are in areas that would be designated Class II:

- Buffalo Hills Toll Road (through the north fork of Buffalo Creek Canyon)
- Merrillville-Beiber Wagon Road (along the north shore of Eagle Lake)
- A segment of the abandoned Fernley and Lassen Railway that passes through the Susan River Canyon (i.e., the Bizz Johnson Trail)
- Segments of the Fort Churchill-to-Fort Bidwell Military Patrol Route near Upper Smoke Creek

Manage the following areas according to VRM Class III objectives: communication sites on Antelope and Shaffer Mountains and another on a ridge east of Grasshopper Fire Station. Other, unnamed VRM Class III areas may be found on Map VRM-1.

Manage all areas not assigned to VRM Classes I, II, or III under VRM Class IV objectives. New communication towers and support facilities should meet Class III objectives if the contrast rating process is used and good design principles are applied.

Major modification of the existing landscape would be permitted in some areas. These Class IV areas are identified on Map VRM-1.

Fuel reduction treatments and removal of invasive juniper will take place throughout the management area within VRM Class II, III, and IV areas. However, specific treatment methods and application parameters will vary according to visual resource management constraints. The most important concessions toward maintaining scenic integrity when cutting or thinning would be to:

- Create natural-looking openings when clearing invasive juniper
- Create irregular edges along property lines (rather than linear or [other] geometric shapes)
- Leave an irregular pattern of scattered trees (rather than cutting everything)
- Consider distance and viewing angle from primary observation point(s) when selecting treatment methods and application parameters
- Consider the presence, absence, degree, and extent of visual screening from primary observation point(s)

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

NEPA requires VRM contrast ratings for juniper thinning or removal projects. Contrast ratings help planners meet VRM objectives for the project area. The visual objectives for VRM Class II and III are (respectively) retention, or partial retention, of the existing character of the landscape—the goal being to retain, or partially retain, a visually appealing landscape. When vegetation treatments are employed to improve land health, the appearance of the existing landscape will, inevitably, be altered. However, treatments can be applied in a manner that will satisfy Class II and III objectives. The “existing landscape” over large areas is not healthy or natural, having been greatly altered through many years of total fire suppression, overgrazing, and other adverse influences. Vegetation treatments are designed to return an area to an approximation of its natural, healthy state. This will, ultimately, produce a visually appealing landscape that is also in a natural, healthy condition. With the application of sound visual design principles in project planning and implementation, dangerous fuels and invasive juniper can be removed or thinned in a manner that will achieve treatment objectives while maintaining a landscape that satisfies VRM class objectives established in this PRMP.

## 2.22 Water Quality and Hydrologic Function

Water quality is defined and discussed with respect to recognized water quality indicators. A body of water is “impaired” when it exceeds or fails to achieve (as the case may be) the upper or lower limit for one or more of these indicators. The primary indicators of water quality are:

- water temperature
- nutrient levels
- coliform count (fecal bacteria)
- turbidity
- sediment load
- dissolved oxygen (DO)
- stream channel condition

Most waters on lands administered by the ELFO do not meet state water quality standards for temperature and DO during the summer and fall months. Heavy livestock grazing, combined with high ambient air temperature, is thought to be the major contributing factor. BLM also has no control, and little influence, over grazing practices on private lands at the head of watersheds that subsequently flow through BLM-administered lands. This situation exists for many streams in the management area. ELFO resource specialists also believe state water quality standards are unrealistic for this area. However, significant progress is being made in many watersheds. Despite this, the following streams (in particular) are not making significant progress toward meeting water quality standards: Red Rock Creek, Shoals Creek, and Cottonwood Creek.

### 2.22.1 Desired Future Condition

Attainment of desired water quality standards would be met within 20 to 50 years. Hydrologic function and water quality would be suitable for all beneficial uses. Water quality would be sufficient for stable and productive aquatic and riparian ecosystems. Water quality parameters for natural bodies of water would meet state water quality standards. Artificially created (developed) bodies of water that are not “waters of the state” (e.g., some stock ponds, waterfowl developments, and wildlife guzzlers) would demonstrate water quality that is suitable for the beneficial uses for which they were developed.

Water quality goals would be achieved by managing the key factors that affect the health, productivity, and stability of upland, riparian, and aquatic ecosystems. Stream channel processes and stream channel integrity would be preserved in a manner similar to the riparian and aquatic systems from which they developed. Hydrologic processes and sedimentation régimes of streams, wetlands, and lakes would be natural and appropriate for soil type, landform, and climate. This means that conditions would be such that snow and rainwater would be effectively captured and stored; then safely released. Soils would support healthy native upland, riparian, and wetland vegetation that would slow water movement and permit normal infiltration, filtration, and storage. Streams would flood naturally (i.e., without excessive rapidity or volume) so that watershed damage would be minimal. PFC would be attained because water quality and in-stream flow would be adequate, stable, and effective in supporting healthy and resilient aquatic and riparian habitats.

Rejuvenating or enhancing the vigor, diversity (structural and species), and extent of upland, riparian, and wetland vegetation is essential to this effort. Healthy terrestrial and aquatic vegetation would provide shade

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

(by reducing evaporation and water temperature), delay run-off, dissipate energy, filter sediment, and aid in floodplain development.

These factors would recharge groundwater and increase and prolong flow from streams and springs. They would also decrease peak flow and delay floodwaters. By so doing, incised channels would be healed, streambanks stabilized, and erosion effectively controlled. Natural resources would be enhanced for human use by improving the quality and quantity of water, and creating healthy fisheries and healthy vegetation for livestock, wildlife, and recreation.

### 2.22.2 Goal

Ensure that the natural hydrologic function of uplands, springs, riparian areas, streams, and wetlands is achieved (or preserved) so that requirements of beneficial uses and state water quality standards are met.

### 2.22.3 Objectives

On a priority basis, take action to improve hydrologic function and/or water quality in areas not meeting state standards—especially where hydrologic function and/or water quality problems are major factors inhibiting the success of other resource programs. Ensure that hydrologic function and water quality are preserved in areas where standards have already been achieved.

Actions will be guided by the following objectives from the “Standards for Rangeland Health and Guidelines for Livestock Grazing Management on BLM-Administered Lands in Northeastern California and Northwestern Nevada” (S&Gs). This policy requires BLM managers to: “Maintain the physical, biological, and chemical integrity of waters flowing across or underlying the lands it [BLM] administers.” The S&Gs specify the following objectives for water quality and hydrologic function:

- “Protect the integrity of these waters where it is currently threatened.”
- “Insofar as is feasible, restore the integrity of these waters where it is currently impaired.”
- “[BLM must] not contribute to pollution and take action to remedy any pollution resulting from its actions that violates California and Nevada water quality standards, tribal water quality standards, or other applicable water quality requirements.” (e.g., requirements adopted by state or regional water quality control boards in California or the Environmental Protection Agency [EPA] [pursuant to Section 303(d) of the Clean Water Act or the Coastal Zone Reauthorization Act])
- “Where action related to grazing management is required, such action would be taken as soon as practicable but not later than two years (in accordance with 43 CFR 4180.1).”
- “Be consistent with non-degradation policies identified by the States.”
- “Develop and execute a management agency agreement with the States of California and Nevada for the efficient protection of water quality associated with BLM management.”
- “Work with the State’s water quality administrative agencies and the EPA to establish appropriate beneficial uses for public waters, establish appropriate numeric targets for 303(d)-listed water bodies, and implement applicable requirements to ensure that water quality on public lands meet the objectives for the designated beneficial uses of this water.”
- “Develop and implement BMPs approved by the States to protect and restore the quality and beneficial uses of water, and monitor both implementation and effectiveness of the BMPs. BMPs would be developed in full consultation, coordination, and cooperation with permittees and other interests.”

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- “State or tribal approved variances or exceptions to water quality standards may be applicable within their “basin plans” for specific types of activities or actions. BLM would follow State or tribal administrative procedures associated with variances.”

### 2.22.4 Legislative, Regulatory, and Policy Direction

- Standards for Rangeland Health and Guidelines for Livestock Grazing Management on BLM-Administered Lands in Northeastern California and Northwestern Nevada (Appendix B)
- BLM Handbook 4180-1, Rangeland Health Standards
- BLM Manual 7200, Water Resources
- BLM Manual 7240, Water Quality
- Unified Federal Policy for a Watershed Approach to Federal Land and Resource Management
- President's Clean Water Action Plan
- MOU with the California Water Resource Control Board for Planning and Coordination of Non-Point Source Water Quality Policies and Activities (Feb. 93)
- Lahontan Water Quality Control Board Basin Plan
- Central Valley Water Quality Control Board Basin Plan
- Nevada Water Quality Standards (Nevada Administrative Code 445A.118 to 445A.225)
- U.S. Forest Service and BLM protocols for addressing 303d-listed waters
- Executive Order 12088—Federal Compliance With Pollution Control Standards
- Executive Order 11988—Floodplain Management
- Executive Order 11990—Protection of Wetlands

### 2.22.5 Proposed Management Actions

BLM will employ a range of management strategies to minimize impacts on water quality and riparian function. Various uses and activities will be allowed within streams, riparian areas, and contributing uplands as long as they do not impede progress toward attaining water quality standards or the goals and objectives for riparian habitats. For streams with quality-impaired segments, or lakes not meeting water quality standards (see Map WATER-1), allowed uses must not interfere with restoring water quality to standards set by the State.

The following BMPs would be emphasized:

- Creating new livestock grazing strategies,
- Adjusting livestock AUMs and/or adjusting season-of-use,
- Gathering wild horses to appropriate management levels and/or adjusting herd numbers,
- Restricting certain recreational activities, and
- Protecting uplands, springs, streams, riparian areas, and wetlands from overgrazing by employing and maintaining protective enclosures.

Other proposed management actions include the following:

- Implementing vegetation treatments and planting woody riparian species planted where this is most beneficial and desirable.
- Constructing in-stream structures, where suitable.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Complete assessments of riparian functional condition throughout the management area on a priority basis. Take action where and when indicated, and periodically reassessed to satisfactory progress.
- Initiate restorative measures on 35 miles of streams and 33 acres of springs and wetlands known not to be in PFC. Concentrate restorative efforts on Smoke Creek, Shoals Creek, Cottonwood Creek, and Redrock Creek. Include in these efforts other riparian areas found not to be in PFC.
- Develop and employ a standardized collection of BMPs to improve water quality and/or hydrologic function on 34 miles of streams where, according to assessment data, conditions are not in compliance with BLM's water quality health standard.
- Apply BMPs on all bodies of water impaired by BLM actions or those of its permittees. There are other areas, not yet assessed, that are also likely to fail land health standards. BMPs would be applied in these areas as well, when they are identified.
- Amend basin plans to reflect water quality standards that would meet the needs of beneficial uses throughout the ELFO management area. This includes working with state water quality control regulatory agencies and participation in their triennial reviews, as well as participation in Nevada's basin plan revision.
- Include BMPs in all activity plans where actions could degrade water quality—especially those for silviculture and recreation. Develop BMPs on a site-specific basis.

## **2.23 Water Supply**

BLM employs many forms of water development in its resource management programs, especially in connection with livestock grazing. Surface water conditions have gradually changed over a period of many decades, primarily from historic livestock grazing and road-building activities. Relatively large irrigation dams have been built (under permit) on BLM-administered lands. Reservoirs are now the main instrument of hydrologic changes, and are important for livestock and irrigation; as well as for wildlife, recreation, and other purposes. Other hydrologic modifications include stock ponds, spring developments, and a few water diversions. These kinds of development are required for proper distribution of livestock (as well as wild horses and burros). However, many water developments are also designed to benefit wildlife. Some examples of the latter are wildlife guzzlers and various actions designed to enhance or reestablish riparian and wetland areas.

### **2.23.1 Desired Future Condition**

Water supply (quantity and distribution) would be sufficient to meet beneficial uses and resource objectives in compliance with BLM land health standards. Major beneficial uses are livestock grazing, terrestrial and aquatic wildlife habitats, wild horses, and recreation. Where water supply is inadequate, distribution would be improved or new supplies developed.

### **2.23.2 Goal**

Assure a dependable supply and adequate distribution of high-quality water to meet natural resource requirements and beneficial uses.

### **2.23.3 Objectives**

Determine in-stream flow requirements necessary to support healthy aquatic and riparian habitats. Acquire and maintain water rights needed to protect federal investments by ensuring an adequate and reliable water supply for BLM programs.

### **2.23.4 Legislative, Regulatory and Policy Direction**

- Standards for Rangeland Health and Guidelines for Livestock Grazing Management on BLM-Administered Lands in Northeastern California and Northwestern Nevada (Appendix B)
- Water Quality Health Standard: Water must have characteristics suitable for existing or potential beneficial uses. Surface and groundwater must comply with the Clean Water Act and other water-quality standards, including those of California and Nevada (excepting approved variances)
- BLM Water Rights Policy:
  - IM CA-2000-014, “Interim Water Rights Policy for Public Lands in Nevada Administered by BLM-California”
  - BLM Handbook H-7250, “Water Rights” and California Supplement H-7250-1 “California Water Rights Procedures”
  - MOU with Lassen County, CA (2003)

**2.23.5 Proposed Management Actions**

- Maintain and manage water resources to ensure proper distribution and an adequate supply for livestock, wildlife, and wild horses and burros.
- New water developments will emphasize wildlife needs and uses.
- Ensure that sufficient water is maintained for recreation and other activities.
- Be selective in developing springs and exclosures in riparian ecosystems.
- Assert water rights when needed to protect natural resources and federal investments.
- Coordinate projects that involve inter-basin transfer of water with local and regional governments.
- Consider withdrawal of water right permits and licenses on sources that are not “waters of the state.”
- Apply to the State of California to acquire water rights now under state jurisdiction.
- Assert in-stream flow rights in Nevada and riparian rights in California on all perennial and important intermittent streams.

## 2.24 Wild Horses and Burros

BLM's ELFO manages wild horses in three HMAs, one of which also supports burros (see Map WHB-1). Periodic removals have been used to maintain populations within established AMLs. In recent years, ELFO has collected baseline genetic data during gathering operations and, in the fall of 2003, the Surprise Field Office conducted fertility control research on animals from the Buckhorn HMA. The ELFO plans to collect baseline genetic data on all herds and expand its fertility control research efforts in the future.

For the past 25 years, herds have been deliberately managed to maintain their cohesiveness and physical integrity. When animals are gathered, individuals to be returned are carefully selected for conformity to the historical characteristics (type, color, size, and confirmation) of animals from that HMA. Because of this, ELFO horses are generally high-quality animals, that are sought after in the regular adoption program, provided they are three years of age or younger. There is also some demand for animals four years of age; however, there is little demand for horses five years or older.

Twin Peaks (the largest HMA) is almost 800,000 acres in size, with an established AML of 448-758 horses and 72-116 burros. This HMA includes five home ranges, each with individual AMLs (established in 1988). At that time, allotment and pasture fencing (within the HMA) were thought to limit exchange of individuals between herds. However, following recent gathers, removed animals were quickly replaced by new arrivals, thus demonstrating that some natural movement is occurring between home ranges.

Because of funding priorities, a limited budget, and scheduling difficulties, gathers have been postponed for several years, and horse populations have increased greatly. In addition, several large wildfires (of natural origin) have affected vegetation and forage production within this HMA. This situation has necessitated emergency gathers. However, these have not been successful in reducing populations to the AML.

The other HMAs are New Ravendale and Fort Sage—neither of which has an established AML. Both HMA are about 15,000 acres and estimated AMLs are 10-25 horses and 55-65 horses, respectively. Complete monitoring data have not been collected for either HMA, so a proper analysis cannot be conducted or an appropriate AML confidently established at this time.

In the past, herds have been gathered at the request of private landowners or for emergency situations (such as wildfire or drought). The New Ravendale HMA was gathered in 2004, and the population was within its *estimated* AML. Horse census numbers in 2006 indicate the New Ravendale herd is about twice the estimated AML and will need gathering by 2008. The Fort Sage HMA is within its *estimated* AML.

### 2.24.1 Desired Future Condition

Populations would be sustained within an appropriate management level established for each HMA in order to support a thriving ecological balance between wild horse and burro numbers, the ecosystem, and the requirements of other resource uses. Excess animals would be regularly gathered and offered for adoption through the National Wild Horse and Burro Adoption Program. Animals entering the adoption program would exhibit the historical herd characteristics that make them desirable to those interested in horse adoptions, particularly horses four years of age or younger.

Genetic information would be collected from gathered animals to establish baseline data in order to ensure the long-term stability of historic herd characteristics. Fertility control measures would also be used to maintain a sustainable ecological balance between animal numbers and the habitat's capacity to support them.

**Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

The Litchfield Corral would function as an efficient corral and office facility that would provide public horse-viewing and educational opportunities (especially for school groups, tourists, and potential adoptees). Information would be provided on wild horse and burro population dynamics, ecosystem effects, and the necessity of suitable constraints to protect natural and cultural resources and provide for the needs of other beneficial uses of public lands. Information would be provided and public interest stimulated, in the wild horse and burro adoption program. The facility would be equipped to support the preparation and “gentling” of horses, including well-designed alleyways, chutes, work arenas, and viewing areas. A properly designed and well-run facility would be successful in increasing and sustaining horse adoptions from northern California and northern Nevada.

**2.24.2 Goal**

Manage wild horses and burros within designated HMAs at population levels that protect vegetation, wildlife, livestock, and other resources to ensure maintenance of a thriving ecological balance.

**2.24.3 Objectives**

Manage wild horses within three HMAs (established in previous land use plans) according to scientifically established AMLs based on vegetation and population monitoring.

**2.24.4 Proposed Management Actions**

Wild horses and burros would be managed in three (existing) HMAs (listed in Table 2.24-1) according to AMLs based on vegetation and population monitoring.

**Table 2.24-1** Wild Horse and Burro Herd Management Areas

<b>Herd Management Area and Number</b>	<b>Appropriate Management Level (acceptable range)</b>	<b>Size (acres)</b>
New Ravendale (CA-243)	Horses: 10-25	14,883
Twin Peaks (CA-242)	Horses: 448-758 Burros: 72-116	797,927
Fort Sage (CA-241)	Horses: 55-65	15,759
Total	Horses: 513-848 Burros: 72-116	828,569

The (five) home ranges of the Twin Peaks HMA would be managed as a “complex” (since mixing between herds already exists) under a combined AML for the entire herd management area. This would be done to restore degraded ecosystem components. Horses would be temporarily removed from a portion of the HMA (one home range) while still maintaining overall animal numbers. When a degraded area recovers (e.g., from the effects of wildfire or when resource improvement projects have restored land health), horses would be redistributed among the five home ranges. When the ecosystem returns to health, stability would be maintained by imposing the individual AML appropriate for each home range (total AMLs for the five home ranges must not exceed the overall AML for the HMA). Home range AMLs would apply under stable, healthy conditions. If and when a land health issue arises, causes could be analyzed and a successful implementation plan developed because of the flexibility inherent in this management scenario.

The New Ravendale and Fort Sage HMAs would be managed under estimated AMLs until vegetation and population studies are complete and AMLs can be confidently established. The following management actions would also be implemented:

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

- Horses returned to the breeding population (during gathers) would be selected for historical traits (i.e., animal type, color, size, and confirmation) characteristic of animals from that HMA.
- Promote tourism and provide economic benefits by developing (seasonal) public horse and burro viewing areas. Build interpretive kiosks at these sites to increase public interest, understanding, and enjoyment.
- Improve horse-viewing opportunities at the Litchfield Corral facility and include a greater emphasis on education. The purpose would be to increase public understanding of the challenges inherent in managing wild horses and burros while striving to protect natural and cultural resources. Provide information about the wild horse and burro adoption program and develop the facility to permit more on-site adoptions and supplement satellite (statewide) adoption programs.
- Manage wild horses and burros in accord with the Wild Free-Roaming Horses and Burros Act (1971, as amended) and with other laws and regulations that may apply.
- Maintain horse and burro populations within AMLs appropriate for each HMA. Reevaluate and adjust AMLs where and when indicated.
- Reevaluate each HMA to determine whether its continued existence is justified.
- Conduct a regular aerial population census, at least every three years, in order to monitor habitat conditions and population levels.
- Conduct gathers on a regular, three-year basis in order to maintain populations within established AMLs.
- Collect genetic data on each herd (during gathers) in order to acquire baseline information.
- Consider fertility control research in some or all HMAs.

## 2.25 Wildlife and Fisheries

Wildlife management issues are complex from an ecological – and also from a legal – perspective. For these reasons they are addressed under seven major categories. These are as follows:

1. species listed as endangered or threatened by the federal government,
2. other special status species (i.e., state-listed and BLM sensitive species),
3. ungulates,
4. sagebrush ecosystems and sagebrush-obligate/associated species,
5. native wildlife,
6. fish and other aquatic species, and
7. non-native wildlife.

### 2.25.1 Legislative, Regulatory, and Policy Direction

Wildlife and wildlife habitat are managed in cooperation with state wildlife agencies, namely the CDFG and the NDOW. These agencies manage wildlife populations using objectives developed from their respective management plans, while BLM focuses on the management of wildlife habitat within the lands it administers. BLM policy mandates cooperation with these agencies to accommodate their management goals—to the extent these are consistent with BLM’s policies and to the principles of multiple-use management. A MOU is in effect between BLM and California and Nevada state wildlife agencies detailing the manner in which these organizations will cooperate in the management of all wildlife species and their habitats.

BLM regulations and policies – plus numerous other legislative, regulatory, and policy decisions – are involved with providing and protecting habitat for wildlife and fish, as well as the quality and abundance of water. BLM policy with regard to listed species is articulated in BLM Manual 6840 – Special Status Species Management, and includes the following legislative, regulatory, or policy directives, as listed in Section (.03) Authority:

- A. Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*), as amended.
- B. Sikes Act, Title II (16 U.S.C. 670g *et seq.*), as amended.
- C. The Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*), as amended.
- D. Department Manual 235.1.1.A., General Program Delegation, Director, Bureau of Land Management.
- E. Department Manual 632.1.1-1.6, Endangered Species Management.
- F. Secretarial Order 3206 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act).

BLM policy with regard to non-native species is addressed in BLM Manual 1745 – Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife and Plants, and includes the following legislative, regulatory, or policy directives, as listed in Section (.03) Authority:

- A. Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*), as amended.
- B. The Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701-1782), as amended; and P.L. 98-540 (98 Stat. 2718).
- C. National Environmental Policy Act of 1969 (42 U.S.C. 4321-47; 83 Stat. 852; P.L. 91-190).

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- D. Executive Order 11987, Exotic Organisms (dated May 24, 1977), restricts the introduction of exotic species into natural ecosystems of the U.S.
- E. BLM Manual Section 6500.

Compliance with the Endangered Species Act involves a dual mandate for land management agencies. These agencies are to use their authority to carry out programs for the conservation of endangered and threatened species, and through consultation and monitoring, ensure that any actions authorized, funded, or carried out by such agency are not likely to jeopardize the continued existence of any endangered or threatened species. Consultation with the USFWS is required for actions which the managing agency determines may affect a listed species, or its designated critical habitat.

Section 102.8 of FLPMA requires that public lands be managed to protect environmental quality and ecological relationships; and where appropriate, to preserve and protect their natural condition. FLPMA places fish and wildlife management goals on equal footing with other traditional land uses and requires that a portion of grazing fees be spent on “range betterment,” including the protection, maintenance, and enhancement of aquatic and terrestrial wildlife habitat where livestock grazing occurs. It also requires due consideration for fish and wildlife resources before approval of any land exchanges.

BLM policy requires compliance with Manual 6840—Special Status Species Management, which states in Section .06 (D) that state laws protecting state-listed species apply to all BLM programs and actions to the extent that they are consistent with FLPMA and other federal laws. Manual 6840 states [Section .06 (E)] that protection provided by this policy for candidate species shall be used as the minimum level of protection for BLM sensitive species. Additional policy guidance from this manual requires that actions authorized on BLM-administered lands will not contribute to the detriment of any species so as to require its listing as a candidate species under Endangered Species Act legislation, or as a sensitive species under BLM policy. In addition, Section .06 (E) 7 states that state-listed species be managed at the level of protection required by state law or under BLM policy for species which are candidates for “special status” whichever would provide better opportunities for its conservation.

Special status wildlife—including state-listed and BLM sensitive species—are generally limited in distribution, population levels, or available habitat and may be at risk over a variety of geographical areas. Where evidence suggests that land-use practices are adversely affecting special status species not currently listed as “threatened” or “endangered” by the federal government, it is in the public interest to prevent the need for listing under the Endangered Species Act. Restoration and maintenance of a specific habitat type may also be the preferred course of action where resource conditions are of high quality or uniquely suited to a particular special status or sensitive species.

BLM Land Health Standards (43 CFR 4180) require the management of rangelands so that “habitats are, or are making significant progress toward being restored or maintained for federally listed threatened and endangered species, federally proposed...and other special status species.”

Congress has required, in the Sikes Act of 1974 that BLM “...plan, develop, maintain, and coordinate programs for the conservation and rehabilitation of wildlife, fish, and game.” BLM’s role in the management of fish and other aquatic resources is to provide suitable habitat that supports desired aquatic plants and animals.

Animals, plants, and their physical environment are interrelated and part of an ecological process fundamental to the health and function of aquatic ecosystems as well as surrounding rangeland and forest ecosystems. Species manipulations—such as introductions or removals—are under the authority of state wildlife agencies.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

Other legal, regulatory, and policy documents, and some relevant publications, include:

- Bald and Golden Eagle Protections Acts, as amended (1978)
- Pacific Bald Eagle Recovery Plan (1986)
- Migratory Bird Treaty Act, as amended (1998)
- MOU on Implementation of the Endangered Species Act between 14 federal agencies (USDA Forest Service; US Department of Defense; US Department of the Army Corps of Engineers; US Department of Commerce National Marine Fisheries Service; USDI BLM, Bureau of Mines, Bureau of Reclamation, USFWS, Minerals Management Service, and National Park Service; US Department of Transportation Coast Guard, Federal Aviation Administration and Federal Highway Administration; and EPA)
- Northeastern California and Northwestern Nevada Standards for Rangeland Health and Guidelines for Livestock Grazing Management (1999)
- Migratory Bird Executive Order 13186, Responsibilities of Federal Agencies To Protect Migratory Birds (66 FR 3853) (2001)
- California Endangered Species Act
- California Partners in Flight and the Riparian Habitat Joint Venture, “The Riparian Bird Conservation Plan” (RHJV, 2004)
- Partners in Flight, Western Working Group, “Birds in a Sagebrush Sea” (Paige and Ritter, 1999)
- BLM Nevada’s “Migratory Bird Best Management Practices for the Sagebrush Biome”
- Revised Nevada Bat Conservation Plan (Nevada Bat Working Group 2006)
- BLM Manual 6600- Fish, Wildlife, and Special Status Plant Resources Inventory and Monitoring
- BLM Manual 6525- Wildlife Programs Related to the Sikes Act
- BLM Manual 1745 California Supplement and Associated Handbook
- Master MOU between the California Department of Fish and Game and the Bureau of Land Management, Department of the Interior, 1982
- Master MOU between the Nevada Department of Wildlife and the Bureau of Land Management, Department of the Interior, 1970
- Nevada Division of Wildlife – Bighorn Sheep Management Plan (2001)
- Nevada’s Pronghorn Antelope Management-Ecology, Management, and Conservation (Tanner and others, 2003)
- Draft Recovery Plan for the Carson Wandering Skipper (2005)
- Conservation Strategy for Sage-Grouse (*Centrocercus urophasianus*) and Sagebrush Ecosystems within the Buffalo-Skedaddle Population Management Unit (Northern California Sage-Grouse Working Group, 2006)
- Bureau of Land Management National Sage-Grouse Habitat Conservation Strategy (2004)
- Biscar National Cooperative Land and Wildlife Management Area Wildlife Habitat Management Plan
- California Comprehensive Wildlife Conservation Strategy (2005)
- Nevada Comprehensive Wildlife Conservation Strategy (2005)

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- North American Waterfowl Management Plan
- North American Waterbird Conservation Plan
- United States Shorebird Conservation Plan
- Partners in Flight North American Landbird Conservation Plan
- Nevada Partners in Flight Bird Conservation Plan (1999)
- Coordinated Implementation Plan for Bird Conservation in Nevada (Nevada Steering Committee of the Intermountain West Joint Venture)
- MOA for Endangered Species Act Section 7 Programmatic Consultations and Coordination among Bureau of Land Management, U.S. Forest Service, National Marine Fisheries Service and U.S. Fish and Wildlife Service (2000)
- Interagency Agreement: Streamlined Consultation Procedures for Section 7 of the Endangered Species Act (1999)
- Alternative Consultation Agreement to implement Joint Counterpart Endangered Species Act Section 7 Consultation Regulations (FR notice 2003, BLM signed ACA 2004)

### 2.25.2 Group 1. Federally Listed Species

Current federally listed species for the ELFO management area are:

**Carson wandering skipper (*Pseudocopa eunus obscurus*)—federally listed as endangered**

Based on vegetation and soil series information, the ELFO area may contain up to approximately 35,000 acres of potentially suitable Carson wandering skipper habitat (see Map WL-1). The majority of this habitat containing saltgrass and nectar sources is primarily found along the west shore of the Smoke Creek Desert; along Wendel Road; and, on the east side of Horse Lake. No known populations of the species have been found on BLM ELFO lands to date; however, surveys of all BLM suitable habitat are ongoing and not yet complete. Carson wandering skippers have been located on CDFG, Department of Defense, and private lands within the ELFO area.

**Bald eagle (*Haliaeetus leucocephalus*)—federally listed as threatened**

There are three known bald eagle home ranges (one active, plus two historic) in the ELFO management area (see Map WL-2). These include nesting, roosting, and foraging habitats. Each home range is approximately 12,500 acres; excluding areas with vegetation not functionally or structurally suitable as bald eagle habitat. Approximately 3,100 acres of each home range is nesting territory.

In March 2005, the Cleghorn nest tree was found to have fallen due to natural causes. It is not known whether annual nest rebuilding had occurred before the tree fell. cursory surveys of the nesting area did not result in evidence of eagles or a new nest nearby, but surveys will continue in hopes of locating a new nest site. In the interim, BLM will manage the area following the direction outlined in the Cleghorn Habitat Management Plan (Hawks 1982).

**Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*)—federally listed as threatened**

No native populations of this species are known in BLM-administered streams. Because hatchery-reared Lahontan cutthroat trout are subject to the Endangered Species Act, CDFG is not currently raising them in their hatcheries or planting hatchery-raised stock. However, CDFG has plans in the near future to pursue cooperative efforts with BLM and the USFWS to reestablish Lahontan cutthroat trout into streams that once supported this species and have recovered sufficiently to support them into the future (Chappell 2006,

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

Personal Communication). NDOW does raise and stock Lahontan cutthroat trout in its waters (Leach 2006, Personal Communication); however, none of the streams in Nevada within BLM ELFO-administered lands have current or recently existing populations of this species, nor are they listed as potential sites for Lahontan cutthroat trout recovery in the future according to the 1995 Recovery Plan (Tisdale 2006, Personal Communication).

### **Yellow-billed cuckoo (*Coccyzus americanus*)—candidate species**

Yellow-billed cuckoos were not found in the management area during surveys conducted by Point Reyes Bird Observatory personnel between 2002 and 2004 (Barton and Holmes, 2004). Cottonwood groves along Lower Smoke Creek and the Susanville River are not sufficient to support this species at present. However, if populations are discovered here or elsewhere, an action plan would be developed.

#### **2.25.2.1 Desired Future Condition**

Wildlife habitats within BLM's ELFO will be of sufficient quality to promote the recovery, restoration, maintenance, or enhancement of endemic wildlife populations recognized by the federal government as endangered or threatened, to assure that resident populations prosper and thrive. This includes species proposed for such listing, designated critical habitat for these species, and species which are candidates for federal protection.

#### **2.25.2.2 Goal**

BLM lands will be managed so as to promote the recovery, restoration, maintenance, or enhancement of endemic wildlife populations and critical habitat for species listed by the federal government as endangered or threatened, species proposed for such listing (including designated critical habitat for these species), and for species which are candidates for federal protection.

#### **2.25.2.3 Objectives**

- BLM lands will be managed in accordance with BLM Manual 6840, and Sections 7(a) (1) and 7(a) (2) of the Endangered Species Act.
- Habitat for threatened and endangered species will be managed in accordance with recovery plans, habitat management plans, regional conservation strategies, and by reasonable and prudent measures, terms and conditions, and conservation recommendations from plan and project-level biological opinions.

#### **2.25.2.4 Proposed Management Actions – Group 1. Federally Listed Species**

##### **Carson Wandering Skipper**

- Manage in accordance with Section 7 (a) (1) and Section 7 (a) (2) of the Endangered Species Act of 1973, as amended, if populations of this species are found, to ensure no ELFO management actions jeopardize its continued existence.
- Cooperate with other government and private agencies regarding the recovery plan and appropriate implementation measures, if populations of this species are found on BLM-administered lands.
- Conduct surveys to search for Carson wandering skippers, as qualified personnel and time may allow. GIS information and USFWS interim survey guidelines will be used for identifying suitable habitat and determining habitat suitability and presence or absence of this species.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

### Bald Eagle

- Manage in accordance with Section 7 (a) (1) and Section 7 (a) (2) of the Endangered Species Act of 1973, as amended; the Pacific Bald Eagle Recovery Plan; BLM Manual 6840; the Cleghorn Nesting Territory Habitat Management Plan; USFWS Biological Opinion 1-1-82-F-126, dated October 28, 1982; and BMPs for Bald Eagles in the Eagle Lake Basin.
- Conduct annual surveys to monitor bald eagle nest sites, verify the presence of individuals, and monitor reproductive success.
- Conduct annual mid-winter surveys with cooperators (i.e., other government entities, private organizations, and interested individuals; surveys cover the entire perimeter of Eagle Lake).
- Implement seasonal protective measures and buffer zones to minimize disturbance by human activities conducted under permit. (See Table 2.25-1).
- Develop GIS database for nesting, roosting, and foraging areas.
- Manage forested home range habitat (generally one mile or less from large bodies of water) to preserve potential nesting trees ( $\geq 24$  inches dbh).

### Lahontan Cutthroat Trout

Cooperate with CDFG, NDOW, and the USFWS regarding using local plantings of hatchery or other stock to reestablish Lahontan cutthroat trout into their former habitat. This will require prioritizing potential streams (see Appendix M—specifically A-141-148) for habitat improvements necessary to support this species.

### Yellow-billed cuckoo (candidate species)

- Develop an action plan if populations are found on BLM-administered lands.
- Assist in survey efforts, when appropriate.

Table 2.25-1 identifies buffer zones and seasonal restrictions for the bald eagle and other raptors and wildlife species.

## 2.25.3 Group 2. State-Listed And BLM Sensitive Species

Current state-listed species in the ELFO management area are:

- Swainson's hawk (*Buteo swainsoni*),
- bank swallow (*Riparia riparia*),
- willow flycatcher (*Empidonax traillii*),
- great gray owl (*Strix nebulosa*),
- greater sandhill crane (*Grus canadensis tabida*),
- Sierra Nevada red fox (*Vulpes vulpes necator*),
- California wolverine (*Gulo gulo luteus*),
- California bighorn sheep (*Ovis canadensis californiana*) (this species is addressed in Group 3. Ungulates).

**Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

**Table 2.25-1** Buffer Zones and Seasonal Restrictions for Raptors and Other Wildlife Species

Species	Buffer Zone—Distance	Seasonal Restriction Dates
Bald Eagle	Nest: ½ mile line of sight; ¼ mile non-line of sight; 1.0 mile blasting (January-August) Winter roosts: ½ mile (December-April)	January 1-August 31 December 1-April 1
Golden eagle	Nest: ½ mile line of sight; ¼ mile non-line of sight	February 1-August 31
Northern goshawk	Current nest: ¼ mile Previous year's nest: ½ mile	March 1-August 31
Cooper's hawk	Nest: ¼ mile	March 1-August 31
Sharp-shinned hawk	Nest: ¼ mile	March 1-August 31
Ferruginous hawk	Nest: ½ mile direct line of sight; ¼ mile with visual buffer	March 1-August 1
Red-tailed hawk	Nest: ¼ mile	March 1-August 31
Swainson's hawk	Nest: ¼ to ½ mile	April 15-August 15
Peregrine falcon	Nest: 1.0 mile	January 1-August 15
Prairie falcon	Nest: ¼ to ½ mile	March 15-August 15
Osprey	Nest: ¼ mile	March 1-August 31
Burrowing owl	Nest: ¼ mile	March 1-August 31
Flammulated owl	Nest: ¼ mile	April 1-September 30
Great gray owl	Nest: ¼ mile	March 1-July 31
Great blue heron	Nest: 660 feet to ¼ mile	March 15-July 15
Townsend's big-eared bat	Hibernaculum: (November-April) Nursery: (April-October)	November 1-April 15 April 15-October 31

Current BLM sensitive species for the ELFO management area are:

- golden eagle (*Aquila chrysaetos*),
- ferruginous hawk (*Buteo regalis*),
- California spotted owl (*Strix occidentalis occidentalis*),
- tricolored blackbird (*Agelaius tricolor*),
- northern sagebrush lizard (*Sceloporus graciosus graciosus*),
- Pacific fisher (*Martes pennanti pacifica*),
- southwestern river otter (*Lutra canadensis sonora*),
- juniper titmouse (*Baeolophus griseus*),
- fringed myotis (*Myotis thysandodes*),
- long-eared myotis (*Myotis evotis*),
- small-footed myotis (*Myotis ciliolabrum*),
- Yuma myotis (*Myotis yumanensis*),
- pallid bat (*Antrozous pallidus*),

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Townsend's western big-eared bat (*Plecotus townsendii*),
- greater sage-grouse (*Centrocercus urophasianus*), and
- burrowing owl (*Athene cunicularia*) (greater sage-grouse and burrowing owl will be addressed in the sagebrush ecosystems category).

Surveys have been conducted for a few state-listed and BLM sensitive species in the ELFO area, including:

- Swainson's hawk (nest at Fort Sage in 2002-2004, Barton and Holmes, 2004);
- ferruginous hawk (documented and historical records, nest in Lassen County during 1980's-1990's);
- willow flycatcher (none found during 2003 surveys along the Susan River); and
- California spotted owl (nest in Gold Run Creek vicinity in 1990, site unoccupied 1993-1997 and 1999-2003, Shaw, pers. comm.).

There is little information regarding other state-listed and BLM sensitive species within the ELFO management area.

### 2.25.3.1 Desired Future Condition

The ELFO will provide suitable and healthy habitats for populations of state-listed and BLM sensitive species living in balance with other native wildlife. The intention is to create such improved circumstances for these species that their position is no longer justified, permitting removal from listed status.

### 2.25.3.2 Goal

The ELFO will manage all lands under its jurisdiction so as to recover, restore, maintain, or enhance habitats and populations of state-listed and BLM sensitive species, and to prevent the necessity of future listing under the Endangered Species Act.

### 2.25.3.3 Objectives

- Manage habitats of state-listed and BLM sensitive species so that BLM actions do not contribute to the necessity of listing any species as "endangered" or "threatened" under the Endangered Species Act; or as determined under 43 CFR 24; or as defined in BLM Manual 6840—*Special Status Species Management*, Section .02 (B) and Section .06 (D, E).
- Manage habitats of state-listed and BLM sensitive species according to the California Endangered Species Act and other provisions of California and Nevada state law, in order to protect and conserve these species.
- Manage state-listed and BLM sensitive species—and the ecosystems on which they depend—according to established recovery plans, conservation plans, habitat management plans, and conservation recommendations. BLM guidelines and BMPs will be followed.

### 2.25.3.4 Proposed Management Actions – Group 2. State-Listed And BLM Sensitive Species

- Continue as an active partner and coordinate with CDFG, NDOW, USFWS, USDA Forest Service, and other conservation partners to contribute to maintaining or improving the status of state-listed and BLM sensitive species.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Cooperate with partners to obtain information on state-listed and BLM sensitive species regarding occurrence, abundance, and distribution within the field office area. Develop a GIS database to document and track information on these species.
- For populations found on BLM-administered lands, develop an interdisciplinary implementation plan with the following components:
  - involvement of experts in the process,
  - a review of known literature and information from local or relevant studies,
  - a list of all potential actions, and
  - a strategy for implementing actions.
- Implement seasonal protective measures and buffer zones, as appropriate, for permitted activities when identified (see Table 2.25-1).

### 2.25.4 Group 3. Ungulates

Species addressed in this resource category are:

- mule and black-tailed deer (*Odocoileus hemionus*),
- pronghorn (*Antilocapra americana*),
- Rocky Mountain elk (*Cervus elaphus nelsoni*), and
- California bighorn sheep (*Ovis canadensis californiana*).

Mule and black-tailed deer seasonal-use habitats are found throughout the management area (see Map WL-4). Mule deer spring, summer, and fall landscape requirements are about 55% foraging areas, 25% fawning and fawn-rearing habitat, and 20% hiding/thermal cover. The ratio of winter landscape requirements are about 55% foraging areas, 25-30% thermal cover, and 15-20% hiding cover (Leckenby et al. 1982). Bitterbrush habitats are a priority for deer habitat restoration due to the relative effectiveness of treatment in improving seasonal deer ranges.

Bitterbrush is a very important browse species for mule deer in the late summer, fall, and winter. It is also utilized to a lesser extent by pronghorn antelope and various rodents, birds, and insects. It occurs in Great Basin Mixed Shrub habitats in bitterbrush/big sagebrush communities and in bitterbrush dominated communities. Some bitterbrush habitats within the ELFO are decadent and in need of maintenance or restoration. One recommendation for improving mule deer habitat in the Intermountain West Ecoregion states, "Protect and plant important browse species for mule deer, especially in winter ranges." (Mule Deer Working Group 2003)

Pronghorn seasonal use habitats are also found throughout the management area (see Map WL-5). Favored rangelands for pronghorn maintain a living vegetation composition of 40% or more, and a high level of species diversity in each forage class (i.e., grasses, forbs, and shrubs). Habitats with a variety of vegetative communities are preferred, as they tend to be rich in forage plants. Rangelands with plants averaging 15 inches (38.1 cm) in height are favored over communities more than 30 inches (76.2 cm) high (Yoakum 2004). Habitat improvement for pronghorn will focus on low-structured sagebrush sites due to the relative effectiveness of treatment procedures in improving seasonal pronghorn ranges. Both deer and pronghorn fawning areas are a high priority for habitat improvement projects.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

Rocky Mountain elk occur sporadically in the ELFO area. An increasing number of incidental reports indicate elk are becoming more common; however, there are presently no established populations in the management area.

Bighorn sheep have not had a significant presence in the ELFO management area since the early twentieth century. In a memo dated 16 April, 1929, from C.O. Fisher to Dr. Joseph Grinnell of the Museum of Vertebrate Zoology, University of California, Berkeley, Fisher documents a die-off of about 40 California bighorn sheep on Observation Peak during the winter of 1922. Fisher also states (in the same memo) that the last bighorn sheep in Lassen County was observed in the vicinity of Al Shinn Canyon, in 1927, which is approximately seven miles south of Observation Peak (C.O. Fisher memorandum, 1929). However, photographs of bighorn sheep in the ELFO area have been taken as recently as 2003 (Armentrout, pers. comm.); these individuals are thought to have wandered from the Virginia Mountains in Nevada, west of Pyramid Lake.

### 2.25.4.1 Desired Future Condition

Lands within the ELFO area will provide suitable habitat for mule deer and pronghorn. Habitat will be healthy, multi-aged and diverse, providing proper conditions for the seasonal needs of these animals within all areas of use. Special attention will focus on important habitats such as aspen, mountain mahogany, bitterbrush, oak woodlands, and riparian areas. BLM would attempt to control noxious weeds so as not to impair ungulate habitats.

### 2.25.4.2 Goal

BLM lands in the ELFO planning area will be managed to restore, maintain, and enhance habitats and populations of native ungulate species.

### 2.25.4.3 Objectives

Ungulate habitats will be managed to attain the desired future condition according to the disparity between potential condition and present ecological state. Guidelines for management are BLM policy and the *Standards and Guidelines for Rangeland Health in Northeastern California and Northwestern Nevada*, particularly Standard 5 (Biodiversity). Briefly stated, the biodiversity standard requires that native, and other desirable plant and animal populations, will be diverse, vigorous, and possess the ability to reproduce and support normal nutrient cycles and energy flows.

Herd management plans for deer, pronghorn, elk, and bighorn sheep will be updated and amended, in consultation and cooperation with state wildlife agencies (CDFG and NDOW).

### 2.25.4.4 Proposed Management Actions – Group 3. Ungulates

- Use the following Criteria to Meet Standards for Rangeland Health Standard 5: Biodiversity (applicable to wildlife):
  - Wildlife habitats include seral stages, vegetation structure, and patch size to promote diverse and viable wildlife populations.
  - A variety of age classes is present for most species.
  - Vigor is adequate to maintain desirable levels of plant and animal species to ensure reproduction and recruitment of plants and animals when favorable events occur.
  - Non-native plant and animal species are present at acceptable levels.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Habitat areas are sufficient to support diverse, viable, and desired populations and are connected adequately with other similar habitat areas.
- Plantings, seedings, willow thinning, and other vegetation management techniques will be used to enhance or maintain terrestrial and aquatic habitats. Local, native plants and seeds will be used as much as possible, in accordance with BLM California Native Seed Policy.
- Priority habitats will be managed to maintain or improve their ecological condition.
- Seeding and planting of shrubs, forbs, and grasses will continue as part of fire rehabilitation efforts and in other situations where it's beneficial for enhancement of ungulate habitats. Between 2001 and 2003, about 87,000 acres were seeded or planted in the ELFO management area.
- Reduction and control of cheatgrass, and other annual grasses and weeds, will be emphasized to improve ungulate habitat, and will be conducted using IWM procedures.
- Native juniper woodlands will be retained and managed for wildlife habitat. Invasive juniper will be reduced (to appropriate levels) where encroachment is harming the ecological potential of rangeland as ungulate habitat. Recovery of such sites may require mechanical treatment, such as reseeding.
- ELFO will cooperate with state wildlife agencies in amending and updating herd management plans for ungulates.
- Develop GIS information for habitat use areas, HMAs, and hunting zones.
- New fences will be designed and constructed to facilitate movement of mule deer and pronghorn, using BLM wildlife fencing specifications (i.e., bottom wire smooth and at least 16 to 18 inches from the ground). Let-down fences will be used and inoperative fences will be removed, where practical.
- The ELFO would consult with state wildlife departments and other government agencies, as well as livestock operators, should Rocky Mountain elk become established in the management area, thereby requiring a coordinated management plan.
- The ELFO currently administers two domestic sheep grazing permits in the Skedaddle area. Voluntary changes or conversions of both permits from domestic sheep to cattle grazing permits would provide ELFO the opportunity to coordinate with state wildlife agencies and other cooperators in developing a reintroduction plan for California bighorn sheep prior to reintroduction efforts. Habitat management would focus on producing grasses and forbs in early to mid-seral stage habitats where applicable.

### 2.25.5 Group 4. Sagebrush Ecosystems And Sagebrush-Obligate/Associated Species

This group focuses on the management of the sagebrush ecosystem to provide habitats for populations of native wildlife that depend on it (for at least some of their habitat needs), specifically sage-grouse, burrowing owl, and (potentially) pygmy rabbit.

#### 2.25.5.1 Desired Future Condition

Maintain sagebrush habitats that are now in high condition, so they exhibit healthy conditions and are capable of providing sagebrush-obligate/associated wildlife with forage, water, requisite vegetation structure, and thermal and security cover sufficient for them to prosper. Sagebrush communities which have experienced excessive juniper encroachment will be treated to facilitate them to reach their ecological potential. Sagebrush communities will demonstrate diversity in age-class and vegetation structure, and a healthy understory. Sagebrush-obligate species and other wildlife species dependant on sagebrush ecosystems would likely increase to reflect the biological potential of the sagebrush habitat.

### **2.25.5.2 Goal**

Sagebrush ecosystems will be restored, maintained, or enhanced to provide sage-grouse, burrowing owl, pygmy rabbit, and other sagebrush associated wildlife with appropriate habitat elements (forage, water, vegetation structure, thermal and security cover).

### **2.25.5.3 Objectives**

- Sagebrush ecosystems will be managed in accordance to BLM policy and the Standards and Guidelines for Rangeland Health in Northeastern California and Northwestern Nevada, particularly Standard 5 (Biodiversity). Briefly stated, the biodiversity standard requires that native, and other desirable plant and animal populations, will be diverse, vigorous, and possess the ability to reproduce and support normal nutrient cycles and energy flows.
- Sagebrush habitat will be managed in such a fashion that the shrub cover, and its associated natural understory, will be present over large areas, with diversity of size and age classes, and in a variety of interconnected spatial arrangements, to fulfill the life-history requirements of sage-grouse and other sagebrush-associated wildlife.
- Core areas of sagebrush habitat will be established and maintained in large, contiguous blocks and in other arrangements such as islands, corridors and in mosaic-like patterns to achieve the size and diversity required by sagebrush-obligate species, especially sage-grouse.
- Ecosystem processes which produce a healthy mix of vegetation heights, age classes, and distribution patterns will be restored.
- Conservation activities will be focused on key species of concern (i.e., sage-grouse, [potential] pygmy rabbit, burrowing owl, a few other vertebrate species and some plants), which have been identified in national, regional, and local conservation planning efforts.

### **2.25.5.4 Proposed Management Actions – Group 4. Sagebrush Ecosystems and Sagebrush-Obligate/Associated Species**

- Use the following Criteria to Meet Standards for Rangeland Health Standard 5: Biodiversity (applicable to wildlife):
  - Wildlife habitats include seral stages, vegetation structure, and patch size to promote diverse and viable wildlife populations.
  - A variety of age classes is present for most species.
  - Vigor is adequate to maintain desirable levels of plant and animal species to ensure reproduction and recruitment of plants and animals when favorable events occur.
  - Non-native plant and animals are present at acceptable levels.
  - Habitat areas are sufficient to support diverse, viable, and desired populations and are connected adequately with other similar habitat areas.
- Implement the Conservation Strategy for Sage-Grouse (*Centrocercus urophasianus*) and Sagebrush Ecosystems within the Buffalo-Skedaddle Population Management Unit (PMU) (Northeast California Sage-Grouse Working Group, 2006). The boundary of the Buffalo Skedaddle PMU is shown on Map WL-3. Essential components of this document include protection, restoration, monitoring, research, and ongoing adaptive management for sage-grouse and sagebrush ecosystems within the management unit.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Use plantings, seedings, or other vegetation management such as willow thinning or enhancement to maintain and improve terrestrial and aquatic habitats.
- Use local native plants and seeds in seeding, re-vegetation, and rehabilitation (including fire) projects in accord with BLM California's Local Native Seed Policy.
- Identify and maintain sagebrush habitats that contain a thriving component of native understory vegetation.
- Implement juniper reduction to enhance sagebrush ecosystems.
- Focus on providing diverse composition and age classes of shrubs and healthy understory vegetation.
- Restore natural disturbance processes such as fire by implementing timber and fuels treatments, including thinning and prescribed burn projects. Do not exceed limitations as described in the Conservation Strategy for Sage-Grouse (*Centrocercus urophasianus*) and Sagebrush Ecosystems within the Buffalo-Skedaddle Population Management Unit (Northeast California Sage-Grouse Working Group, 2006).
- Implement seasonal protection measures and buffer zones, as suitable, for permitted activities when identified (see Table 2.25-1).
- Reduce or control invasive non-native plants using IWM to improve habitat conditions for sagebrush-obligate wildlife species.
- Avoid practices that permanently convert sagebrush habitat to non-native grassland or agricultural land.

### 2.25.6 Group 5. Other Native Wildlife Species

The major species groups covered in this group are:

- terrestrial mammals,
- raptors,
- migratory birds (neo-tropical migrants),
- waterfowl and shorebirds,
- upland game birds, and
- bats.

Most of the species, or groups of species, addressed in this group had little or no protective measures relating directly to them or their habitats in previous land-use plans. However, several species known or suspected to occur in the field office management area are now on the BLM sensitive species list or are state-listed (these species are addressed in a previous management category).

#### 2.25.6.1 Desired Future Condition

The ELFO area will provide diverse and healthy habitats for native wildlife species. Habitats will conform to land health standards, guidelines for livestock grazing, and other BLM policies and guidelines. Habitat conditions will demonstrate fulfillment of life-cycle requirements for native species and their reproductive success.

**2.25.6.2 Goal**

Lands administered by the ELFO area will be managed to restore, maintain, and enhance native wildlife species and their habitats.

**2.25.6.3 Objectives**

- Habitat for native wildlife species will be managed in such a manner that forage, water, and cover—of appropriate diversity and structure—will be present and sufficient to meet their life-cycle requirements. Guidelines for management are BLM policy and the Standards and Guidelines for Rangeland Health in Northeastern California and Northwestern Nevada, particularly Standard 5 (Biodiversity).
- Surveys will be conducted to determine the occurrence, distribution, and abundance of native wildlife species, as qualified personnel and time may allow.
- Proposed reintroductions, augmentations, and translocations of native species will be evaluated according to BLM policy and directives, as well as habitat management goals and objectives. These projects will be coordinated with state agencies, under existing MOUs which outline the process and prior planning procedures.

**2.25.6.4 Proposed Management Actions – Group 5. Other Native Wildlife Species**

- Use the following Criteria to Meet Standards for Rangeland Health Standard 5: Biodiversity (applicable to wildlife):
  - Wildlife habitats include seral stages, vegetation structure, and patch size to promote diverse and viable wildlife populations.
  - A variety of age classes is present for most species.
  - Vigor is adequate to maintain desirable levels of plant and animal species to ensure reproduction and recruitment of plants and animals when favorable events occur.
  - Non-native plant and animal species are present at acceptable levels.
  - Habitat areas are sufficient to support diverse, viable, and desired populations and are connected adequately with other similar habitat areas.
- Plantings, seedings, willow thinning, and other vegetation management techniques will be used to enhance or maintain terrestrial and aquatic habitats. Local native seeds and plants will be used for seeding, revegetation, and rehabilitation projects, in accord with BLM California’s Native Seed Policy.
- Migratory birds will be managed according to the Migratory Bird Treaty Act and Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds.
- Management activities will be conducted in accordance to BLM policies and guidelines, MOUs, current conservation plans, and BMPs for native wildlife species and their habitats. Management plans include, but are not limited to: “Birds in a Sagebrush Sea”, and BLM Nevada’s “Migratory Bird Best Management Practices for the Sagebrush Biome”. The “Nevada Bat Conservation Plan” (2006) is also included.
- Special habitats will be managed to maintain or enhance biodiversity and to sustain healthy multi-aged stands of aspen, mountain mahogany, oak woodlands, bitterbrush, and a variety of mountain shrub communities, as well as spring, riparian and wetland areas.
- Water will be distributed (where determined to be a limiting factor) to meet the needs of upland game birds and other wildlife. Livestock exclosures will be maintained to protect springs and other water sources.

**Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

- Introductions, augmentations, and translocations of native species will be coordinated with state wildlife agencies and will follow BLM Manual 1745 – Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife and Plants.
- Implement seasonal protection measures and buffer zones, as suitable, for permitted activities when identified (see Table 2.25-1).
- Existing and potential waterfowl-related projects and project areas are listed in Table 2.25-2.

**Table 2.25-2 Existing and Potential Waterfowl Projects**

Water Body	Existing Nest Islands	Islands Require Maintenance	Build New Islands	Existing Fences	Fences Needed or Require Maintenance	Future Nesting Structures	Other: Vegetation planting etc.
Eagle Lake				X			Potential <sup>1/</sup>
Susan River				X	X	X	Potential <sup>1/</sup>
Willow Creek				X	X		Potential <sup>1/</sup>
Pete’s Valley Creek				X	X		Potential <sup>1/</sup>
Smoke Creek				X	X		Potential <sup>1/</sup>
Biscar Reservoir	X	X	X	X	X	X	X
Round Corral Reservoir	X	X	X	X	X	X	X
Buckhorn Reservoir				X	X		Potential <sup>1/</sup>
Pilgrim Lake	X	X	X	X	X	X	X
Snowstorm Wetlands	X	X		X	X		X

<sup>1/</sup> As determined by the ELFO Interdisciplinary Team.

**2.25.7 Group 6. Native And Non-Native Fish And Other Aquatic Species**

Native fish of the Lahontan basin are Lahontan cutthroat trout, tui chub, Tahoe sucker, mountain sucker, Lahontan redbreast, speckled dace, Paiute sculpin, and mountain whitefish. Introduced species include brown trout, rainbow trout, brook trout, and some others.

Stream habitat condition surveys were conducted by BLM in 2003. Summaries of these have been compiled for Red Rock Creek, Cottonwood Canyon Creek, Shoals Creek, Pine Creek, Secret Creek, Stony Creek, Pete’s Creek, Willow Creek, Buffalo Creek (main stem, Middle Fork and West Fork), Smoke Creek (Upper and Lower), Rush Creek Tributary, Cheney Creek, and the Susan River. These summaries can be found in Appendix M.

Electrofishing surveys and fish population surveys have also been conducted. Electrofishing surveys were conducted by NDOW in 1990 on Buffalo Creek (main stem, Middle Fork and West Fork), and by BLM on Willow Creek in 2003. Fish population surveys were conducted by CDFG on Upper Smoke Creek in 1980,

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

and also by BLM in 2003, while Lower Smoke Creek was surveyed by NDOW in 2003. These surveys were also conducted by CDFG on the Susan River in 1992 and 1996.

### **2.25.7.1 Desired Future Condition**

Lands administered by the ELFO will provide and maintain healthy springs, streams, and aquatic habitats to support native and non-native fish and other aquatic species. Habitats will conform to land health standards, guidelines for livestock grazing, riparian PFC, and other BLM policies and guidelines. Aquatic habitats will be protected from degradation and will provide a diversity of quality fishing opportunities in fishable streams.

### **2.25.7.2 Goal**

The ELFO will manage lands under its jurisdiction to restore, maintain, and enhance habitat for native and desirable, non-native fish populations, as well as other aquatic species.

### **2.25.7.3 Objectives**

- All streams and fish-bearing springs will be managed for proper habitat for native fish.
- Survey and documentation of aquatic life forms in streams and springs of the ELFO management area will be conducted as qualified personnel, time, and funding permit. Species, and species groups, requiring special management will be identified.
- The distribution and abundance of redband trout will be increased through maintenance and restoration of habitat quality and quantity.
- The ELFO will coordinate plans and actions between its recreation staff and state wildlife agencies regarding recreational fishing opportunities and issues.
- Management in support of non-native fish will be carried out as appropriate for recreational fisheries.

### **2.25.7.4 Proposed Management Actions – Group 6. Native And Non-Native Fish And Other Aquatic Species**

- Use the following Criteria to Meet Standards for Rangeland Health Standard 2: Streams (applicable to wildlife):
  - Gravel bars and other coarse-textured stream deposits are successfully colonized and stabilized by woody riparian species.
  - Stream bank vegetation is vigorous and diverse and primarily perennial, and holds and protects banks during high stream flow events.
  - The stream water surface has a high degree of shading, resulting in cooler water in summer and reduced icing in winter.
- Use the following Criteria to Meet Standards for Rangeland Health Standard 4: Riparian and Wetland Sites:
  - Riparian vegetation is vigorous and primarily perennial, and diverse in species composition, age class, and life form sufficient to stabilize stream banks and shorelines.
  - Riparian vegetation and large woody debris are well anchored and capable of withstanding high stream flow events.

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

- Negligible accelerated erosion as a result of human related activities is evident.
- Age class and structure of woody riparian and wetland vegetation are appropriate for the site.
- Plantings, seedings, willow thinning, and other vegetation management techniques will be used to enhance or maintain terrestrial and aquatic habitats. Local native seeds and plants will be used for seeding, revegetation, and rehabilitation projects, in accord with BLM California's Native Seed Policy.
- Use existing stream inventory data as a baseline to develop stream-specific implementation plans.
- Suitable management actions will be initiated to improve streams and springs which are not in PFC.
- Projects for the rehabilitation, maintenance, and enhancement of riparian and aquatic habitats, and their associated native and desirable non-native fish, will be designed and conducted following BMPs, which may include:
  - maintaining or improving minimum pool depths,
  - increasing clean spawning gravels, and
  - implementing bank stabilization measures where needed.
- Native fish-bearing streams will be maintained in proper water quality and riparian function, and in accord with BLM land health standards, Guidelines for Livestock Grazing, PFC, and BMPs.
- The ELFO will coordinate and cooperate with state wildlife agencies in the implementation of their management strategies, including planting of fish in suitable waters.
- Existing dams and reservoirs will be maintained to provide a safe environment for public activities.
- The ELFO will work with local County Fish and Game Commissions and sportsman's groups to determine their management priorities, and will cooperate in suitable enhancement opportunities, as time, funding, and personnel allows, with adherence to BLM policy.

Table 2.25-3 summarizes proposed management actions for fisheries.

### 2.25.8 Group 7. Non-Native Species

The ELFO provides habitat for a variety of desirable non-native species, including chukar, turkey, brown trout, and brook trout. There are also several undesirable wildlife populations that may compete with habitat elements for native wildlife. Some of these include starling, brown-headed cowbird, and bullfrog.

#### 2.25.8.1 Desired Future Condition

Habitat conditions will allow for healthy populations of desired non-native species, within their current areas of distribution. Undesirable non-native species will be reduced, or at least controlled, to prevent them from competing with native wildlife.

#### 2.25.8.2 Goal

Abundant, healthy populations of desired non-native species—such as chukar, turkey, brown trout, and brook trout—will be encouraged, where appropriate, through suitable land management practices. Undesirable non-native species will be reduced, or at least controlled.

Table 2.25-3 Proposed Management Actions for Fisheries

Water Body/ Resource Concern	Existing Fish Species	Proposed Management Actions
Willow Creek <i>Marginal trout stream</i> <i>High temperatures</i>	Brown trout, Lahontan redbside, tui chub, speckled dace	Improve habitat from current status of fair to good (increase woody shade); explore potential for Lahontan fishery.
Lower Smoke Creek <i>No trout</i> <i>High temperatures</i>	Tahoe sucker, green sunfish	Implement full-scale human-involved stream rehabilitation. Develop as a warm water fishery.
Upper Smoke Creek <i>Marginal trout stream</i>	Tahoe sucker, Lahontan redbside, speckled dace, small population rainbow trout	Cooperate with USFWS to remove rainbow trout and prepare area to become a native Lahontan fishery. Discuss with CDFG possible planting of Eagle Lake rainbow trout.
Upper Buffalo Creek <i>Marginal trout stream</i>	Tahoe sucker, Lahontan redbside	No emphasis
N. Buffalo Creek <i>Marginal trout stream</i>	Tahoe sucker, Lahontan redbside	Cooperate with NDOW to add redband trout. Improve habitat (increase clean spawning gravel).
Middle Buffalo Creek <i>Marginal trout stream</i>	Tahoe sucker, Lahontan redbside	No emphasis
Pine Creek <i>Marginal trout stream</i>	Eagle Lake rainbow trout, brook trout	Cooperate with CDFG regarding species and habitat issues.
Susan River <i>Most suitable for cutthroat trout</i>	Rainbow trout, brown trout	Increase clean spawning gravel; revive Susan River Management Plan. Maintain access; improvements as needed.
<sup>1/</sup> Dodge Reservoir/ Red Rock Creek	Eagle Lake rainbow trout, Lahontan cutthroat trout, brown trout	Maintain existing dams; maintain or improve minimum pool depths.
Biscar Reservoir	Large-mouth bass, perch, bluegill	Maintain existing dams; develop wildlife interpretive materials.
<sup>1/</sup> Round Corral Reservoir	Eagle Lake rainbow trout, Lahontan cutthroat trout	Maintain existing dams; maintain or improve minimum pool depths.
<sup>1/</sup> Buckhorn Reservoir	Eagle Lake rainbow trout, Lahontan cutthroat trout	Maintain existing dams; maintain or improve minimum pool depths.
Eagle Lake	Eagle Lake rainbow trout, Lahontan redbside, Tahoe sucker, tui chub, speckled dace	Cooperate with CDFG regarding species and habitat issues. Develop interpretive materials on bald eagles and fisheries issues.

<sup>1/</sup> Hatchery fish planted annually by CDFG if hatchery stock and funding dollars exist.

**2.25.8.3 Objectives**

- Proposed introductions and translocations of non-native species will be evaluated in terms of BLM policies and directives, habitat management goals and objectives, and in cooperation with state wildlife agencies.

- Management issues or concerns related to non-native (and native) species will be dealt with under existing MOUs with state wildlife agencies.
- Habitat for naturalized desirable species will be managed within the current limits of species distribution.
- Measures will be implemented to control and reduce populations of undesirable non-native and invasive species, where and when appropriate.

#### **2.25.8.4 Proposed Management Actions – Group 7. Non-Native Wildlife**

The following criteria from BLM Manual 1745 – Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants, Section .06 (A), will be followed for the management of desirable non-native species. This policy states that native species shall be used unless, through the NEPA process, it is determined that:

- Suitable native species are not available.
- The natural biological diversity of the proposed management area would not be diminished.
- Exotic and naturalized species can be confined within the proposed management area.
- Analysis of ecological site inventory information indicates that a site would not support reestablishment of a species that historically was part of the natural environment.
- Resource management objectives cannot be met with native species.

Per BLM Manual 1745—Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants, Section .06(F), exotic or domesticated species that have reverted to a feral state and (feral species) that are adversely impacting native species and/or habitats should be controlled and/or removed, unless permitted by state or federal law, in a manner consistent with state and federal policies, procedures, and regulations.

Implement management measures from state plans or other conservation plans (such as those developed by Partners in Flight and Riparian Habitat Joint Venture [RHJV 2004], among others) to manage, control, or eliminate non-native or invasive species.

#### **2.25.9 Proposed Management Actions – Groups 1 - 7**

The proposed management actions provide for maintaining, restoring, and enhancing wildlife habitats on BLM-administered lands and provides the management tools for implementing these activities, which would ultimately benefit wildlife populations. Healthy and diverse habitats are needed to provide life requirements and promote stable wildlife populations. Proposed management actions will focus on the spectrum of native wildlife species, regardless of economic or Endangered Species Act listing status.

The proposed management actions provide an organized interagency approach to address wildlife habitat needs, using the Rangeland Health Standards and Guidelines for Northeastern California and Northwestern Nevada (Appendix B), and will implement landscape-level sagebrush management aimed at ecosystem restoration. Such management considers the regional context of the ELFO lands in managing the sagebrush biome as a whole. Projects would be designed to provide a diverse composition and age class structure of shrubs and understory vegetation, and to emphasize restoring habitats. Aquatic management would emphasize protecting and restoring riparian condition and in-stream processes that would provide habitat for

## Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP

natural assemblages of fish and other aquatic species. More intensive management practices would be used as needed to restore biodiversity to degraded areas.

Recognizing the extensive habitat degradation over the last century due to the combined effects of invasive juniper encroachment, invasive species (mainly cheatgrass and medusahead grass), and historic land use practices, management would implement a three-tiered approach to ecosystem restoration:

1. Remaining intact habitats with viable populations would receive priority for maintenance that retains ecosystem function (e.g., managed disturbance regime).
2. Highest priority for active management would be given to degraded habitats with the highest restoration potential and highest potential for maintaining populations or for re-connecting habitats.
3. Heavily degraded habitats would be the focus of long-term, interagency, community-based planning to reclaim sagebrush habitat over time.

Remnant populations and habitat features within heavily degraded sagebrush habitats may require emergency actions to retain biodiversity. Such actions could include the following:

- reintroducing native plant species,
- using intermediate “transition” vegetation types to displace exotics, and
- applying habitat manipulations or plantings to stem further losses (to protect remnant habitat features from wildfire).

Forests will be managed for retention of certain characteristics (e.g., large diameter trees and snags, vertical canopy layering, high canopy closure, and downed woody material) as habitat for California spotted owls within its range.

Approximately ten existing meadow and riparian habitat enhancement projects will be maintained. Other habitat improvement projects, such as increasing riparian deciduous shrubs and maintaining meadow vegetation, will be developed.

Water developments, including 32 existing guzzlers will be managed as follows:

- Assign monitoring and maintenance to responsible agencies and enlist the aid of volunteers.
- Build new projects where water is determined to be a limiting factor for wildlife.
- Include responsibility for maintenance in implementation plans.

Habitats will be protected and restored through the continued maintenance of 12 large livestock exclosures (about 2,200 acres). Approximately five new livestock exclosures (greater than 40 acres in size) will be constructed to restore and protect habitats. Let-down fences will be used and inoperative fences will be removed, where practical.

Brush piles will be built to enhance upland game bird nesting, security, and thermal cover, where cover is determined to be lacking.

Invasive juniper will be reduced on 15,000-20,000 acres where encroachment has altered the ecological potential or limited the productivity of native rangeland. Recovery of sites may require mechanical treatments, such as reseeding.

Deer habitat would be improved by the creation of multi-aged stands—in cooperation with range and vegetation management programs—in 50-75% of all aspen, mountain mahogany, and oak woodland habitats (approximately 2,100 – 3,150 acres).

## **Chapter 2: MANAGEMENT ACTIONS FOR THE PROPOSED RMP**

Waterfowl nesting islands will be maintained and/or improved at Biscar Reservoir, Round Corral Reservoir, Pilgrim Lake, and Snowstorm wetlands. These and other sites would be evaluated for construction of new islands and additional nesting structures. Responsibility for their maintenance would be identified in implementation plans.

Fisheries will be managed within specific streams based on biological potential and habitat capabilities (e.g., Susan River, Upper Smoke Creek, Lower Smoke Creek, Willow Creek, and Red Rock Creek).

Interpretive information on bald eagle occurrences in the Eagle Lake Basin will be developed and distributed to the public at campgrounds and other public sites at Eagle Lake.

Interpretive information will be developed and distributed regarding successful cooperative efforts between CDFG and BLM to stock Lahontan cutthroat trout, Eagle Lake trout, and other fisheries issues.

Other interpretive information for wildlife species, including pygmy rabbit, sage-grouse, burrowing owl, California spotted owl, northern sagebrush lizard, and bat species will be developed and distributed, as appropriate.

## Alternatives Summary Table

### AIR QUALITY

#### Management Common to All Alternatives:

- All prescribed fire projects would be completed in accordance with the Clean Air Act and in compliance with all federal, state, and local air pollution requirements.
- An approved prescribed fire burn plan would be in place prior to the ignition of any prescribed fire, and adhered to throughout the project.

Management Actions	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Manage prescribed fires to reduce impacts to air quality</b> (acres/year)	0–100	0–1,500	0–4,500	0–500	0–4,500

### CULTURAL & PALEONTOLOGICAL RESOURCES

#### Management Common to All Alternatives:

- Continue to conduct Native American consultation, implement cooperative agreements, and protect Native American special interest areas from adverse impacts.
- Monitor 30 cultural sites on a yearly basis as a part of the Section 110 program.
- Annually inventory 640 acres as part of the Section 110 program.

Management Actions	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Designate and manage CRMAs</b>	(number)	13	10	17	17
	(acres)	9,084	1,146	60,798	60,798
<b>Designate archeological areas of critical environmental concern</b> (number)	0	0	2	0	2

<b>ENERGY AND MINERALS</b>					
<b>Leasable Minerals</b>					
<b>Management Common to All Alternatives:</b>					
<ul style="list-style-type: none"> <li>All WSAs are 'Closed' to leasable mineral activities (380,359 acres).</li> </ul>					
<b>Management Actions</b>	<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>'Open' to leasing under standard terms and conditions (acres)</b>	642,408	602,427	391,339	591,377	391,339
<b>'Open' with seasonal and other restrictions (acres)</b>	0	160	137,071	11,210	147,227
<b>'Open' with NSO requirements (acres)</b>	0	5,501	76,922	5,501	69,522
<b>'Closed' to mineral leasing (acres)</b>	380,359	414,679	417,435	414,679	414,679
<b>Locatable Minerals</b>					
<b>Management Common to All Alternatives:</b>					
<ul style="list-style-type: none"> <li>All WSAs are 'Open' to development of and exploration for locatable minerals, but 'Limited to activities that do not require reclamation' (unless the operation had established grandfathered uses or valid existing rights on October 21, 1976).</li> <li>Locatable mineral development and exploration within ACECs would require the preparation and approval of a plan of operations prior to development.</li> </ul>					
<b>Management Actions</b>	<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>'Open' to locatable minerals (acres)</b>	1,022,767	1,020,272	969,885	1,022,767	1,014,361
<b>Recommended for withdrawal from locatable mineral entry (acres)</b>	0	2,495	52,882	0	8,406

<b>Saleable Minerals</b>					
<b>Management Common to All Alternatives:</b>					
<ul style="list-style-type: none"> <li>All WSAs (380,359 acres) are 'Closed' to saleable mineral activities.</li> <li>Saleable mineral development within ACECs would require the preparation and approval of a plan of operations prior to development.</li> </ul>					
Management Actions	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>'Open' to saleable minerals (acres)</b>	639,753	637,008	553,011	637,008	634,002
<b>'Closed' to saleable minerals (acres)</b>	383,014	385,759	469,756	385,759	388,765
<b>'Open' to decorative stone and flat rock collection (acres)</b>	1,022,767	1,022,767	0	1,022,767	1,022,767
<b>'Closed' to decorative stone and flat rock collection (acres)</b>	0	0	1,022,767	0	0
<b>Renewable Energy</b>					
<b>Management Common to All Alternatives:</b>					
<ul style="list-style-type: none"> <li>All WSAs (380,359 acres) are 'Closed' to renewable energy activities.</li> <li>Wind energy projects will be designed and developed in accordance with the <i>Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States, 2005 (Wind Energy PEIS)</i>.</li> <li>Adverse impacts from wind energy development to wildlife and their habitats would be reduced by following the USFWS's <i>Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines, 2003</i>.</li> <li>Prior to authorizing any wind energy projects, a site-specific environmental analysis would be conducted to determine project feasibility and address and mitigate impacts, including impacts to visual resources.</li> </ul>					
<b>Designate ACECs as renewable energy avoidance areas (acres)</b>	160	2,905	89,397	2,905	89,397

## FIRE MANAGEMENT

### Management Common to All Alternatives:

**Wildland Fire Management:**

- When fire-intensity levels are severe, aggressive initial attack and full suppression is the AMR, especially in the WUI. When fire-intensity levels are low, response actions will be determined by resource management objectives for the area – typically containment.
- Suppression efforts in initial attack may include engines, aircraft, retardant, and heavy equipment. Use of heavy equipment will be avoided in ACECs, RNAs, WSAs, and known NRHP-eligible sites. Such use requires line officer approval.
- Local resources, contractors, and personnel will be used as much as possible in suppression efforts.

**Risk Mitigation and Education:**

- Educational programs will be given in local schools concerning fire prevention as well as the natural role of fire in the ecosystem.
- BLM representative(s) will attend local fire safety council meetings to present programs on the risks of fuel accumulation and wildland fire, as well as information on basic fire ecology and its beneficial role in local ecosystems.
- Hazard assessment and identification of high-risk areas will be ongoing. Once identified, fuel mitigation projects will be formulated.
- BLM fire managers will work with local communities to develop community wildfire protection plans.

Management Actions	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>AMR</b>					
<b>Areas targeted for AMR being full suppression (acres)</b>	1,022,767	1,022,767	282,304	1,022,767	282,304
<b>Wildland fire use (acres)</b>	0	0	10,339	0	10,339
<b>Use full range of AMR suppression options (acres)</b>	0	0	730,124	0	730,124

<b>FORESTRY</b>					
<b>Management Common to All Alternatives:</b>					
<ul style="list-style-type: none"> <li>• Manage 11,020 acres as commercial forest, using a mix of silvicultural methods that includes commercial thinning, even-age management (clearcut and shelterwood), uneven-age management (group selections, individual tree selection, and sanitation/salvage), and pre-commercial thinning.</li> <li>• Continue to meet the maximum sustained yield defined in the <i>Timber Management Environmental Assessment: Sustained Yield Unit 15</i> (BLM 1981).</li> <li>• Rehabilitate forested areas burned in the Willow and Devil fires (773 acres).</li> <li>• Treat aspen stands that are being invaded by competing species to remove competition and expand stands to their full potential.</li> <li>• Use commercial and pre-commercial thinning and hazard reduction to manage for recreation and community wildfire defense on 1,332 acres along the Bizz Johnson Trail SRMA.</li> </ul>					
Management Actions	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Harvest trees and biomass from forested areas (acres/year)</b>	400	670	1,100	300	1,100
<b>Implement fuels reduction treatments within Tunnison WSA – using primarily prescribed fire and manual treatments (acres)</b>	0	1,734	1,734	0	1,734
<b>Prioritize management objectives for commercial forests in Upper Murrer meadows</b>	Commercial timber	Commercial timber; wildlife habitat	Commercial timber; wildlife habitat; late seral stages	Commercial timber	Commercial timber; wildlife habitat; late seral stages

## FUELS MANAGEMENT

### Management Common to All Alternatives:

- Treatment of excessive fuels within the WUI is the highest priority. Methods will include manual, mechanical, prescribed fire, and biological alternatives.
- Hazardous fuels reduction plans, project locations, and treatment actions will be determined through resource specialist input, RAMS software, and local community protection requirements.
- Plans and projects will reduce fuels over a wide area, especially targeting invasive western juniper. Projects will mimic naturally occurring wildfire effects for the purpose of restoring plant communities and approximating the biological diversity of naturally occurring local ecosystems.
- Prescribed fire will be integral to fuels reduction efforts. Its use will be based on community protection requirements, resource specialist input, and approved burn plans. Burn plans will be designed and approved on a project-specific basis by qualified resource specialists.
- Classes will be given at local schools regarding fire protection and hazard reduction, and the natural role of fire in the ecosystem. BLM will present in-depth programs on these topics at local fire safety council meetings.
- Hazardous fuels reduction projects will be implemented by BLM fuel module crews and/or contract hand crews.

Management Actions	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Implement hazardous fuels reduction treatments using various methods:</b>					
<b>Prescribed fire (acres/year)</b>	0–100	0–1,500	0–4,500	0–500	0–4,500
<b>Mechanical treatments (acres/year)</b>	0–500	500–2,500	500–3,500	500–2,500	500–3,500
<b>Biological treatments (acres/ year)</b>	0	50–500	50–1,500	50–500	50–1,500
<b>Chemical treatments (acres/ year)</b>	0	50–500	50–500	50–1,500	50–500

<b>LANDS AND REALTY</b>					
<b>Lands for Potential Acquisition</b>					
<b>Management Action</b>	<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>Prioritize lands for acquisition based on the following objectives:</b>					
• <b>Parcels in existing management framework plans</b>	Yes	No	No	Yes	No
• <b>Lands with important resource values</b>	Yes	No	No	No	Yes
• <b>Improved public access</b>	Yes	Yes	No	Yes	Yes
• <b>Lands within or adjacent to special designations</b>	No	Yes	Yes	No	Yes
• <b>Production of commodity resources</b>	No	Yes	No	Yes	No
<b>Lands for Potential Disposal</b>					
<b>Management Action</b>	<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>Prioritize lands for potential disposal</b>	Specific parcels identified in Management Framework Plans	Lands requested for commodity uses	Lands difficult to manage with no significant resources	Specific parcels identified in Management Framework Plans	Lands difficult to manage with no significant resources

<b>Rights-of-Way</b>					
<p><b>Management Common to All Alternatives:</b></p> <ul style="list-style-type: none"> <li>• New ROWs would be located within or adjacent to existing ROWs, to the extent that is practicable, in order to minimize adverse environmental impacts.</li> <li>• As needed, establish additional communication sites on Antelope, Shaffer, and Grasshopper Mountains.</li> <li>• Grant wind energy authorizations on a case-by-case basis, after a site-specific environmental analysis is conducted to determine project feasibility, and to address and mitigate impacts.</li> <li>• The Alturas Transmission Line route (WRCS) and the Tuscarora Pipeline Empire Lateral (within the ELFO) would be designated and prioritized as a rights-of-way corridors.</li> <li>• Manage WSAs as ROW exclusion zones.</li> <li>• Corridor widths would be a minimum of 2000 feet unless adjacent to exclusion or avoidance areas.</li> </ul>					
Management Action	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Authorization of ROWs</b>	Lands generally open to new ROWs	Prioritized for commodity uses	Avoided or excluded in all special area designations	Lands generally open to new ROWs	Avoided in ACECs; excluded in WSAs and WSRs
<b>LIVESTOCK GRAZING</b>					
<p><b>Management Common to All Alternatives:</b></p> <ul style="list-style-type: none"> <li>• Continue to authorize livestock grazing on 54 grazing allotments.</li> <li>• Implement grazing management strategies to meet and make progress toward land health standards, including riparian goals.</li> <li>• Use and adjust selective management categories (Improve, Maintain, and Custodial) as needed to refine management.</li> <li>• Areas affected by wildland fire, prescribed fire, or mechanical treatment would be rested for a minimum of two growing seasons before they would be reopened to livestock grazing.</li> <li>• Livestock salting will not be allowed within ¼ mile of springs, meadows, streams, archaeological sites, and aspen areas. Location of salting stations would be determined by BLM in consultation with livestock permittees.</li> </ul>					
Management Action	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Maintain lands as available to grazing (acres)</b>	987,779	997,858 to 1,007,938	Up to 977,700	987,779	987,779

<b>LIVESTOCK GRAZING (continued)</b>					
<b>Management Action</b>	<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>Maintain lands as unavailable to grazing (acres)</b>	20,160	up to 10,080	30,238	up to 20,160	20,160
<b>Lands rested and/or deferred from grazing annually (% of all lands available to grazing)</b>	75-85%	40-60%	100% All lands grazed only 1 out of 3 years	30-40%	80-90%
<b>Allotments rested and/or deferred from grazing annually (% of total grazing allotments)</b>	48%	25-40%	100% Allotments used only 1 out of 3 years except where multiple pastures occur	20-30%	60-80%
<b>Maintain and construct livestock exclosures for protection of sensitive resources (acres)</b>	2,200	0	2,000- 3,000	0	2,000-2,500
<b>Authorize total permitted AUMs</b>	52,250	52,250- 60,000	15,675-52,250	52,250	52,250
<b>Construct new livestock fences to improve grazing management (miles)</b>	20-30	60-90	60	60	60-80
<b>Manage and rehabilitate existing seedings for livestock forage (acres)</b>	3,000–4,000	3,000–4,000	No; allow to return to native shrub-steppe communities	3,000–4,000	3,000–4,000
<b>Prioritize new seedings for livestock forage</b>	Allowed on case by case basis	Yes, up to 8,000 acres	No; except in burned areas or to restore wildlife habitat	Allowed on case by case basis	Allowed on case by case basis

## RECREATION and VISITOR SERVICES

### Management Common to All Alternatives:

- Provide accessible camping opportunities for disabled visitors at all developed campgrounds in compliance with federal accessibility laws.
- Camping limited to 14 consecutive days and 28 total days in 1 year unless waived by the authorized officer.
- Camping prohibited within 200 feet of creeks, rivers, lakes, and reservoirs unless posted otherwise; within 600 feet of guzzlers; and within 0.25 mile of the following five Lassen County wells: Butte Well, Shaffer Well, Tableland Well, Table Mountain Well, and Belfast Well.
- Designate scenic byways or other appropriate designations to promote recreational driving and sightseeing on the following roads:
  - Clark's Valley Road to Buckhorn Road via Tuledad Road and via Duck Flat and Highway 447
  - Buckhorn Road to Smoke Creek Road via North Fork of Buffalo Creek and via Highway 447 and Sand Pass Road
  - Smoke Creek Road to Wendel Road via Sand Pass Road
  - Eagle Lake Loop using Highways 139, A-1, and Highway 36
  - Fredonyer Peak Scenic Loop Road from Highway 139 using the fire lookout access road and the logging road around the east and north sides of the mountain connecting with the Grasshopper Road and Highway 139
  - Highway 139
  - Highway 395
- Manage the three existing SRMAs – Eagle Lake Basin, 34,320 acres, Bizz Johnson Trail, 2,756 acres, and Fort Sage, 28,494 acres – primarily under the provisions of their existing activity plans.

Management Action	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Designate new Special Recreation Management Areas: (acres)</b>					
<b>Antelope/Shaffer/Bald Mountain</b>	0	61,764	0	0	61,764
<b>South Dry Valley</b>	0	46,813	0	0	46,813
<b>Manage areas outside of SRMAs as the ERMA (acres)</b>	957,197	848,620	957,197	957,197	848,620

<b>RECREATION and VISITOR SERVICES (continued)</b>					
<b>Apply restrictions to leasable, locatable, and saleable energy and mineral development: 'Open', 'Closed', or NSO</b>					
<b>• Bizz Johnson Trail SRMA</b>	Leasable-Open Locatable-Open Saleable-Closed	Leasable-NSO Locatable-Closed Saleable-Closed	Leasable-Closed Locatable-Closed Saleable-Closed	Leasable-NSO Locatable-Open Saleable-Open	Leasable-NSO Locatable-Closed Saleable-Closed
<b>• Eagle Lake Basin SRMA</b>	Leasable-Open Locatable-Open Saleable-Open	Leasable-Closed Locatable-Closed Saleable-Closed	Leasable-Closed Locatable-Closed Saleable-Closed	Leasable-Closed Locatable-Open Saleable-Open	Leasable-Closed Locatable-Open with stipulations Saleable-Open with stipulations
<b>• Fort Sage SRMA</b>	Open	Open	Open with stipulations	Open	Open with stipulations
<b>• Antelope/Shaffer/Bald Mt SRMA</b>	Open	Open	Open with stipulations	Open	Open with stipulations
<b>• South Dry Valley SRMA</b>	Open	Open	Open with stipulations	Open	Open with stipulations
<b>Enforce restrictions to snowmobile use on Bizz Johnson trail</b>	None	None	Closed except for emergency or administrative purposes	None	Closed except for emergency or administrative purposes
<b>Acquire Modoc Line railroad corridor for recreational use</b>	No	Yes	No	No	Yes
<b>Develop management plan for Honey Lake Valley Rim Trail</b>	No	Yes	No	No	Yes
<b>Provide public access to Honey Lake shoreline for recreation</b>	No	Yes	No	No	Yes
<b>Develop hang glider launch areas north of Wendel and at Antelope Mountain and/or other suitable sites subject to demand.</b>	No	Yes	No	No	Yes

**RECREATION OPPORTUNITY SPECTRUM**

**Management Common to All Alternatives:**

- Establish corridors along designated travel routes wide enough to allow for road maintenance, vehicle pullouts, camping, signing and visitor information, and visitor service facilities.
- If a WSA (or portions thereof) are released from WSA status by Congress, the underlying ROS classification would apply to the lands where the WSA had been designated.

<b>Management Action</b>	<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>Designate ROS classes to all BLM lands: (acres)</b>					
• <b>‘Primitive’</b>	0	0	300,382	0	237,953
• <b>‘Semi-primitive Non-motorized’</b>	717,688	0	0	0	0
• <b>‘Semi-primitive Motorized’</b>	195,600	0	0	0	0
• <b>‘Backcountry’</b>	0	913,288	612,906	913,288	675,335
• <b>‘Roaded Natural’</b>	109,479	109,479	109,479	109,479	109,479

**SOILS**

**Management Common to All Alternatives:**

- Promote stabilization of 113,236 acres of upland soils known not to be meeting land health standards.
- Manage all resource activities to ensure “no net loss of soil productivity” or productive potential.
- Use soils with the most suitable characteristics for roads and trails, stock ponds and reservoirs, and other developments.
- Minimize management activities within perennial and intermittent drainages where these activities adversely affect watershed function or processes.
- Develop vegetation treatment plans to specify proper levels of woody residue for soil benefits, where appropriate.

<b>Management Actions</b>	<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>Implement management practices for soil protection</b>	Emphasize improved grazing strategies	Restore degraded soil resources to benefit commodity production	Emphasize natural recovery by limiting or excluding activities that damage soils	Emphasize improved grazing strategies	Emphasize mitigation, natural recovery, and bio-engineering
<b>Implement soil restoration practices:</b> <ul style="list-style-type: none"> <li>• livestock exclosures</li> <li>• planting of woody riparian vegetation</li> <li>• installing instream structures</li> <li>• prescribed burning</li> <li>• post-fire re-seeding</li> <li>• erosion-control structures</li> </ul>	No emphasis	Implement to improve commodity resources	Implement to restore soil health where natural recovery efforts are not sufficient	No emphasis	Implement to restore soil health where natural recovery efforts are not sufficient
<b>Employ active bioengineering methods (i.e., juniper scattering) in upland areas to protect soils from erosion</b>	No	Yes	Yes	No	Yes
<b>Restrict heavy machinery to roads near perennial and intermittent drainages or where soils are not meeting land health standards</b>	No	Yes	Yes	No	Yes

<b>SOILS (continued)</b>					
<b>Implement soil protection measures for new and/or existing roads to avoid soil impacts</b>	Mitigate soil disturbances at the project level	Mitigate soil disturbances at the project level	Close, rehabilitate, and relocate specific roads	Mitigate soil disturbances at the project level	Close, rehabilitate, and relocate specific roads
<b>Apply restrictions to construction activities (e.g., roads, water developments, facilities)</b>	No restrictions	Restrict to locations having least soil impacts and least cost for construction and maintenance	Restrict to locations having the most suitable characteristics for development	No restrictions	Restrict to locations having the most suitable characteristics for development
<b>Apply sediment intrusion buffer zones around sensitive resources (radius)</b>	Determined on a case-by-case basis	≤ 50 feet	100 feet	Determined on a case-by-case basis	≥ 50 feet, determined on a case-by-case basis
<b>Implement mitigation actions to offset soil and productivity losses within required distances of the original disturbance</b>	Within field office area boundary	Within the same fifth-level watershed (conceptually 40,000 to 250,000 acres)	Within the same sixth-level watershed (conceptually 10,000 to 40,000 acres)	Within field office area boundary	Within the same sixth-level watershed area (conceptually 10,000 to 40,000 acres)

<b>SPECIAL DESIGNATIONS</b>					
<b>Areas of Critical Environmental Concern</b>					
<b>Management Common to All Alternatives:</b>					
<ul style="list-style-type: none"> <li>All ACECs are ROW avoidance areas. This means that any applications for new ROWs or utility corridors would undergo a site-specific NEPA review, and would only be granted if BLM concurs 1) the only feasible location is within the ACEC, and 2) no relevant and important resources would be adversely affected. It is incumbent on the ROW applicant to investigate and document that the only feasible location is within the ACEC. BLM will utilize the applicant's documentation to evaluate concurrence.</li> </ul>					
<b>Management Actions</b>	<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>Designate ACECs: (acres)</b>					
<b>Pine Dunes RNA</b>	160	160	2,887	160	2,887
<b>Eagle Lake Basin</b>	0	0	34,320	0	34,320
<b>Susan River</b>	0	0	2,495	0	2,495
<b>Willow Creek</b>	0	0	2,130	0	2,130
<b>Lower Smoke Creek</b>	0	0	894	0	894
<b>Buffalo Creek Canyons</b>	0	0	36,515	0	36,515
<b>North Dry Valley</b>	0	0	10,156	0	10,156
<b>All quaking aspen, black oak, and buffalo berry groves</b>	0	2,745	0	2,745	0
<b>Total</b>	160	2,905	89,397	2,905	89,397

<b>HISTORIC TRAILS</b>					
<b>Management Common to All Alternatives:</b>					
<ul style="list-style-type: none"> <li>Inventory and protect 38 miles of the Nobles Emigrant Trail, a branch of the California National Historic Trail.</li> <li>Develop a management and interpretive plan for the Nobles Emigrant Trail.</li> <li>Initiate inventory and interpretation of the following trails: Merrillville-Bieber Wagon Road-Willow Creek and Eagle Lake segments, Fort Churchill to Fort Bidwell Military Road and Stage Route, Buffalo Hills Toll Road, Military Patrol Road, Fernley-Lassen Branch line, Modoc Line.</li> </ul>					
Management Actions	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Secure public title or access to abandoned railroad grades</b>	Yes	Yes	No	No	Yes
<b>Designate North Fork of Buffalo Creek as a scenic and historic ACEC</b>	No	No	Yes	No	Yes
<b>Designate Lower Smoke Creek Canyon as a scenic and historic ACEC</b>	No	No	Yes	No	Yes
<b>WILD AND SCENIC RIVERS</b>					
Management Actions	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Recommend portions of the Susan River as suitable for designation as a Recreational River (miles)</b>	0	6	8	0	0
<b>Recommend portions of Willow Creek as suitable for designation as a Wild River (miles)</b>	0	4.75	8	0	0
<b>Recommend portions of Upper Smoke Creek as suitable for designation as a Wild River (miles)</b>	0	10.6	10.6	0	10.6
<b>Recommend portions of Lower Smoke Creek as suitable for designation as a Recreational River (miles)</b>	0	3.2	3.2	0	0

**WILDERNESS STUDY AREAS**

**Management Common to All Alternatives:**

- Manage seven WSAs under the IMP until such time as Congress makes a determination regarding wilderness designation. The seven WSAs in the ELFO management area are Five Springs, Twin Peaks, Dry Valley Rim, Tunnison Mountain, Buffalo Hills, Poodle Mountain, and Skedaddle. There is also the Bitterbrush Instant Study Area.
- Resource objectives for WSAs generally have priority over other management objectives under the Wilderness IMP. However, when a WSA overlaps another special designation (e.g., an ACEC, SRMA, etc.) the more restrictive management prescription would apply.
- Lands acquired within WSAs are not subject to the IMP but would be managed to protect their wilderness characteristics.
- Lands that are adjacent to WSAs and are acquired for their wilderness characteristics would be managed to protect these characteristics.
- All WSAs would be managed to meet BLM VRM Class I objectives.
- Unauthorized routes in WSAs would be closed as required under the IMP.
- If Congress releases any WSAs from wilderness consideration and is silent on managing these lands, then management actions within this PRMP would apply to these lands (specifically ROS and travel management direction).
- All proposals for uses and/or facilities within WSAs will be reviewed to determine if the proposal meets the non-impairment criteria.
- The “minimum tool” concept will be applied to all approved activities in WSAs.

Management Actions	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Prioritize land acquisitions within wilderness study areas</b>	Twin Peaks, Dry Valley Rim Tunnison, and Skedaddle WSAs	Twin Peaks, Dry Valley Rim Tunnison, and Skedaddle WSAs	All WSAs	No acquisitions	All WSAs
<b>Establish ROS ‘Primitive’ areas within all WSAs</b>	No	No	Yes	No	Yes
<b>Construct non-motorized/non-mechanized trails within selected WSAs (miles)</b>					
• <b>Tunnison</b>	0	0	6	0	6
• <b>Skedaddle</b>	0	0	19	0	19
• <b>Dry Valley Rim</b>	0	0	37	0	37
• <b>Twin Peaks</b>	0	0	6	0	6
• <b>Total</b>	0	0	68	0	68

<b>WILDERNESS STUDY AREAS (continued)</b>					
<b>Close selected routes within ROS 'Primitive' areas:</b>	<b>(miles)</b>				
• <b>Tunnison</b>	0	0	1.0	0	1.0
• <b>Skedaddle</b>	0	0	19.3	0	19.3
• <b>Five Springs</b>	0	0	3.2	0	3.2
• <b>Dry Valley Rim</b>	0	0	4.7	0	4.7
• <b>Twin Peaks</b>	0	0	7.8	0	7.8
• <b>Buffalo Hills</b>	0	0	8	0	8
• <b>Poodle Mountain</b>	0	0	1.0	0	1.0
• <b>Total</b>	0	0	45.0	0	45.0
<b>TRAVEL MANAGEMENT</b>					
<b>Management Common to All Alternatives:</b>					
<ul style="list-style-type: none"> <li>• Manage 1700 miles of GPS-inventoried routes in the field office area.</li> <li>• Routes closed or not designated for use through this PRMP or subsequent amendments would be closed and rehabilitated. Signing of closed routes would be prioritized to areas with the most need.</li> <li>• Implement the designated route network modification criteria for the following activities: changes in land use designations, new route construction or designation, route realignments, temporary and permanent route closures, and route obliteration and rehabilitation.</li> <li>• Authorized motorized vehicles are exempt from all restrictions and requirements detailed for all alternatives.</li> </ul>					

Off-Highway Vehicle Area Designations					
Management Actions	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Assign off-highway vehicle use designations:</b> (acres)					
• ‘Open’	578,708	419	0	578,708	419
• ‘Limited to existing roads and trails’	412,966	412,966	0	412,966	0
• ‘Limited to designated roads and trails’	22,210	588,724	721,123	22,210	760,837
• ‘Closed’	8,883	20,658	301,644	8,883	261,511
<b>Construct new routes</b> (miles)	0	Up to 15	0	0	Up to 15
<b>Implement permanent route closures</b> (miles)	0	0	59	0	59
<b>Manage the designated route network within the ELFO</b> (miles)	1,700	1,715	1641	1,700	1,656
<b>Close routes within ROS ‘Primitive’ areas to snowmobile use</b> (miles)	0	45	0	0	45
<b>Implement seasonal route closures at Cleghorn Access Road, Tablelands, and Horse Lake areas</b>	No	No	Yes	No	Yes
Non-Motorized Travel					
<b>Management Common to All Alternatives:</b>					
<ul style="list-style-type: none"> <li>• Create trails of a quality to attract visitors and stimulate trail-based tourism while protecting natural and cultural resources. In addition to walking, non-motorized travel will include the use of bicycles, animals (e.g., horses, mules, llamas), or other non-motorized use.</li> <li>• Trail segments crossing private land that connect BLM land with other public routes will require acquisition of property or easements from willing sellers or cooperators.</li> <li>• Develop 50 miles of the Union Pacific’s abandoned Modoc Line railway for predominantly non-motorized (and some motorized) use, if acquired.</li> </ul>					

<b>Non-Motorized Travel (continued)</b>					
<b>Management Actions</b>	<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>Construct non-motorized routes within special management areas (miles)</b>					
• Eagle Lake Basin SRMA	22.5	31	7.5	2	31
• Bizz Johnson Trail SRMA	2	2.5	2	2	2.5
• Fort Sage SRMA	0	2.5	0	0	2.5
• Antelope/Shaffer/Bald Mountain SRMA	0	56	0	0	56
• WSAs	6	68	10	0	68
• ERMA	50	104	3	14	104
• Total	80.5	264	22.5	18	264
<b>Boating</b>					
<b>Management Common to All Alternatives:</b>					
<ul style="list-style-type: none"> <li>• Manage Upper Biscar Reservoir for human-powered watercraft only.</li> <li>• No boating restrictions would apply to Dodge Reservoir, but boating would continue to be limited by the undeveloped shoreline used for boat launching. If a boat launch were developed in the future, management would continue to emphasize low-speed fishing boats.</li> <li>• Manage Round Corral and Buckhorn Reservoirs for human-powered watercraft and low-speed trolling motors.</li> <li>• Manage boating on Eagle Lake with no restrictions</li> </ul>					
<b>Management Actions</b>	<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>Enforce boating restrictions on the Susan River</b>	No restrictions	Human-powered watercraft	Human-powered watercraft	No restrictions	Human-powered watercraft
<b>Enforce boating restrictions on Lower Biscar Reservoir</b>	Human-powered watercraft	Low-speed trolling motors	Human-powered watercraft	Human-powered watercraft	Human-powered watercraft

## VEGETATION

### Management Common to All Alternatives:

- Maintain vegetation alliances, associations, and ecological sites rated as “Healthy”. Work towards restoring vegetation alliances, associations, and ecological sites rated as “Healthy/Lacking Key Attributes” and “At Risk”.
- Complete wildland fire emergency stabilization and rehabilitation projects a manner that ensures ecosystem health.
- Whenever possible, locally gathered native seed will be used for all seeding or re-seeding projects.
- Incorporate guidelines from the Buffalo Skedaddle Sage-Grouse Conservation Strategy in vegetation treatments and habitat restoration projects conducted in sage-grouse habitats.
- All vegetation treatments will be evaluated with regard to rehabilitation requirements, especially noxious and invasive weed management.
- Livestock salting will not be allowed within ¼ mile of springs, meadows, streams, archaeological sites, and aspen areas. Location of salting stations would be determined by BLM in consultation with livestock permittees.
- Areas burned by wild or prescribed fire would be rested from livestock grazing for a minimum of two growing seasons. Decisions to re-open burned areas to grazing would be based on monitoring and assessment.
- Restore natural disturbance processes (prescribed fire, appropriate management response to wildfires, and thinning) to shrub communities.
- Hay, straw, or mulch used for emergency stabilization and rehabilitation projects on BLM-administered lands must be certified weed free.

Management Action	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Implement management actions to maintain vegetation alliances, associations, and ecological sites rated as ‘Healthy’</b>	Implement improved grazing strategies	Prioritize treatments on commodity resources: forest products, livestock forage, game habitat	Maintain 300,000 acres through improved grazing strategies and vegetation treatments	Prioritize treatments on commodity resources: forest products, livestock forage, game habitat	Maintain 300,000 acres through improved grazing strategies and vegetation treatments
<b>Implement management actions to restore vegetation alliances, associations, and ecological sites rated as ‘Healthy/Lacking Key Attributes’</b>	Use prescribed fire, appropriate wildland fire response, limited herbicide application and improved grazing strategies	Use prescribed fire, appropriate wildland fire response, limited herbicide application	Use prescribed fire, appropriate wildland fire response, herbicides, and brush-beating	Use prescribed fire, appropriate wildland fire response, limited herbicide application	Maintain or improve up to 335,000 acres through improved grazing strategies and vegetation treatments

<b>VEGETATION (continued)</b>					
<b>Implement management actions to work towards restoring vegetation alliances, associations, and ecological sites rated as 'At-Risk'</b>	Use prescribed fire, appropriate wildland fire response, limited herbicide application and improved grazing strategies	Use prescribed fire, appropriate wildland fire response, limited herbicide application	Use prescribed fire, appropriate wildland fire response, herbicides, and brush-beating	Use prescribed fire, appropriate wildland fire response, limited herbicide application	Use prescribed fire, integrated weed management, mechanical treatments, controlled grazing, and reseeded of native species aimed at restoring 146,000 to 197,000 acres
<b>Implement management actions to work towards restoring vegetation alliances, associations, and ecological sites rated as 'Unhealthy'</b>	Use prescribed fire, appropriate wildland fire response, limited herbicide application, and improved grazing strategies	Use prescribed fire, appropriate wildland fire response, limited herbicide application, and reseeded native vegetation	Use prescribed fire, appropriate wildland fire response, herbicides, brush-beating, and reseeded of native species	Use prescribed fire, appropriate wildland fire response, limited herbicide application	Use mechanical treatments, prescribed fire, IWM, and reseeded of native species aimed at restoring 21,000 to 28,000 acres
<b>Focus on conserving vegetative functional/ structural groups (native perennial grasses and shrubs)</b>	No	No	Yes	No	Yes
<b>Manage to promote biological crusts</b>	Manage within existing grazing strategies	Manage only to promote commodity resources	Actively manage for and use as indicators of ecological site health	No emphasis	Use as indicators of ecological site health
<b>Manage all quaking aspen, California black oak and buffalo berry sites as ACECs</b>	No	Yes	No	Yes	No

<b>VEGETATION (continued)</b>					
<b>Manage livestock grazing in quaking aspen, California black oak, and buffaloberry sites</b>	Develop implementation plans; construct exclosures at selected sites	Develop implementation plans; construct exclosures at selected sites	Provide rest from grazing to allow tree saplings to grow above the reach of livestock; Construct exclosures at selected sites	Develop implementation plans; construct exclosures at selected sites	Maintain 1,191 acres of 'Healthy' aspen stands, and restore 210 acres of 'At Risk' communities, through controlled livestock grazing, vegetation treatments, and construction of exclosures.
<b>Manage to conserve western juniper woodlands on sites consisting of woodland soils (21,000 acres)</b>	Limited	No	Yes	Selectively retain to support wildlife and to provide livestock forage	Yes
<b>Treat 7,000 acres of western juniper woodland rated 'Unhealthy' (canopy cover &gt; 35%) to restore land health</b>	Yes	No	Yes	No	Yes
<b>Treat invasive western juniper within sagebrush ecosystems</b>	Treat 11,510 acres; reconvert to historic rangeland	Emphasize removal through firewood cutting and mechanical treatments for biomass on all juniper sites	Treat sites where juniper is invasive into rangeland ecological sites	Treat sites to produce livestock forage	Treat sites where juniper is invasive into rangeland ecological sites on approximately 64,000 acres
<b>Restore Wyoming and mountain big sagebrush ecosystems within sage-grouse habitat</b>	Treat ≤ 20% of the habitat acres	Restore only if sage-grouse can be shown to be a valuable economic resource	Treat ≤ 20% of the habitat acres	Restore only to produce livestock forage	Treat ≤ 20% of the habitat acres

<b>NOXIOUS WEEDS AND OTHER INVASIVE SPECIES</b>					
<b>Management Common to All Alternatives:</b>					
<ul style="list-style-type: none"> <li>Review all project proposals prior to implementation to determine IWM needs.</li> <li>Determine the distribution of noxious weed species through systematic inventory on all BLM lands.</li> <li>Develop a training program for BLM field office employees. Develop and implement outreach plans to improve public understanding of the need to control the spread of noxious weeds and manage existing populations.</li> <li>Conduct IWM on BLM lands, including authorized land uses (e.g., ROWs and timber sales).</li> <li>Coordinate treatment of local noxious weeds and invasive species with local agencies by establishing weed management areas</li> <li>Collect monitoring information on treatment sites to determine effectiveness, effects on non-target species, and subsequent species that invade the treated site.</li> </ul>					
<b>RIPARIAN / WETLAND ASSOCIATIONS</b>					
<b>Management Common to All Alternatives:</b>					
<ul style="list-style-type: none"> <li>Manage riparian and wetland habitats to progress toward Land Health Standards, PFC, and DFC, including regional and local objectives.</li> <li>Refine and adjust livestock grazing strategies to make progress toward riparian goals and objectives.</li> <li>Monitor riparian/wetland sites based on <i>Assessing Proper Functioning Condition</i> (BLM Technical References 1737-9 and 1737-11).</li> <li>Continue riparian photo studies of range improvements and grazing strategies to document changes in riparian vigor and function.</li> </ul>					
Management Action	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>Implement management actions to improve or maintain riparian sites in properly functioning condition</b>	Intensive grazing strategies, season of use adjustments, new fencing and off-site water developments	Expand use of riparian areas for livestock, wildlife, and wild horse forage	New fencing, off-site water developments and exclosures; reduce season of use and/or AUMs	Expand use of riparian areas for livestock, wildlife, and wild horse forage.	Intensive grazing strategies, season of use adjustments, new fencing and off-site water developments
<b>Utilize grazing exclosures to protect riparian/wetland sites</b>	Maintain existing exclosures	Maintain some exclosures; allow grazing in others	Construct new exclosures; expand size of existing ones	Do not maintain exclosures	Construct new exclosures; expand size of existing ones

<b>RIPARIAN / WETLAND ASSOCIATIONS (continued)</b>					
<b>Improve condition of riparian (lotic) sites: (projected ratings in 10 to 15 years): (% of total riparian miles)</b>					
• Sites rated as 'Proper Functioning Condition'	84	76	88	76	88
• Sites rated as 'Functioning at Risk, Upward Trend'	14	18	11	18	11
• Sites rated as 'Functioning at Risk, Trend Not Apparent'	1	6	1	6	1
• Sites rated as 'Functioning at Risk, Trend Downward'	1	0	0	0	0
<b>Improve condition of wetland (lentic) sites: (projected ratings in 10 to 15 years): (% of total wetland acres)</b>					
• Sites rated as 'Proper Functioning Condition'	85	71	87	71	87
• Sites rated as 'Functioning at Risk, Upward Trend'	6	13	9	13	9
• Sites rated as 'Functioning at Risk, Trend Not Apparent'	7	9	2	9	2
• Sites rated as 'Functioning at Risk, Downward Trend'	0	5	0	5	0

**SPECIAL STATUS PLANTS**

**Management Common to All Alternatives:**

- Develop strategies to restore, conserve, and recover all populations of sensitive plants.
- Review all project proposals prior to implementation to determine if they would affect special status plant species, and incorporate project recommendations in accordance with the California Special Status Plant Policy (CA BLM Manual Supplement H-6840-1, Special Status Plant Management). Prevent any actions that would contribute to the listing of these species under the Endangered Species Act.
- Maintain reproductive viability of all special status plant species. Ensure that management actions do not contribute to the decline of a special status species.
- Monitor existing populations/occurrences to maintain desired plant community health.
- Survey for unknown and suspected special status plant occurrences.

<b>Management Action</b>	<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>Prioritize acquisition of land to protect special status plant species</b>	No	No	Yes	No	Yes
<b>Extend protection measures to include plants categorized as “Special Interest”</b>	Yes	No	Yes	No	Yes

## VISUAL RESOURCES

### Management Common to All Alternatives:

- Manage WSAs to meet VRM Class I objectives.
- Should a WSA not be designated as wilderness by Congress and be released to multiple use management, the area within the WSA would return to the VRM class or classes that apply to the area as adopted in the final PRMP.
- If portions of a WSA that are released contain special designations such as ACECs, recommended WSR segments, or historic trails, the VRM class for that designation would apply, generally VRM Class II.
- ACECs, WSR segments, historic trails, or other special designations would be managed as VRM Class II, unless the area is managed as Class I under other resource prescriptions.
- All developments, land alterations, and vegetation manipulations would be designed to minimize visual impacts. All projects would be designed to maximize scenic quality while minimizing scenic intrusions.
- Conduct visual contrast ratings for all surface-disturbing activities on BLM land in highly sensitive areas.

Management Actions	No Action Alternative	Alternative 1 Economic	Alternative 2 Ecosystem	Alternative 3 Traditional	Preferred Alternative
<b>VRM Inventory Classes: (acres)</b>					
• <b>VRM Class II</b>	403,437	374,616	405,943	403,437	507,843
• <b>VRM Class III</b>	365,743	432,847	534,159	365,743	442,028
• <b>VRM Class IV</b>	253,587	215,304	82,665	253,587	72,896

## WATER RESOURCES

### Hydrologic Function and Water Quality

### Management Common to All Alternatives:

- Implement management practices to improve 33 miles of stream and 33 acres of riparian/wetland areas known not to be in PFC
- Implement BMPs to improve water quality and progress toward meeting state standards on 34 miles of streams.
- Prioritize restoration efforts on Smoke Creek, Shoals Creek, Cottonwood Creek, and Red Rock Creek.
- Amend the CA and NV basin plans to reflect appropriate and attainable water quality standards.

<b>Hydrologic Function and Water Quality (continued)</b>					
<b>Management Actions</b>	<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>Implement management practices to minimize impacts on water quality and riparian function</b>	Emphasize improved grazing strategies, grazing exclosures adjusting AUMs or season of use, restricting and recreational activities	Emphasize bioengineering projects	Emphasize natural recovery processes, grazing exclosures, planting of woody riparian vegetation, and instream structures	Emphasize improved grazing strategies, grazing exclosures adjusting AUMs or season of use, restricting and recreational activities	Emphasize natural recovery processes, grazing exclosures, planting of woody riparian vegetation, and instream structures
<b>Restrict uses and activities in riparian areas, streams, and contributing upland watersheds</b>	Uses allowed as long as there is progress toward attaining water quality and riparian objectives	Uses allowed as long as there is progress toward attaining water quality and riparian objectives	Uses allowed as long as there is <i>unimpeded</i> progress toward attaining water quality, hydrologic function, and riparian objectives	Uses allowed as long as there is progress toward attaining the water quality and riparian objectives	Uses allowed as long as there is progress toward attaining water quality, hydrologic function, and riparian objectives
<b>Restrict uses and activities on streams and lakes that have water quality-limited segments</b>	Uses allowed only if they do not impede restoring state water quality standards	Uses allowed only if they do not impede restoring state water quality standards	Uses allowed only if they permit unimpeded progress toward attaining state water quality standards	Uses allowed only if they do not impede restoring state water quality standards	Uses allowed only if they do not interfere with restoring state water quality standards

<b>Water Supply</b>						
<b>Management Common to All Alternatives:</b>						
<ul style="list-style-type: none"> <li>• Manage water sources to ensure adequate water supply for livestock, wildlife, wild horses, and recreational activities.</li> <li>• Selectively develop springs and construct grazing exclosures in riparian ecosystems.</li> <li>• Assert water rights needed to protect federal investments and resources.</li> <li>• Projects that involve inter-basin transfer of water to be coordinated with local and regional governments.</li> </ul>						
<b>Prioritize construction of new water developments</b>	Livestock, wild horses and wildlife	Recreation, livestock, energy developments	Wildlife; only if they benefit desired ecosystems	Livestock	Wildlife; only if they benefit desired ecosystems	
<b>Withdraw state-appropriated water rights on waters that are not “waters of the state”</b>	No; continue to file on all except public water reserves	Yes	Yes	Yes; only stock pond permits	Yes	
<b>Assert in-stream flow rights in Nevada and riparian rights in California on all perennial and important intermittent streams</b>	No	No	Yes	No	Yes	
<b>WILD HORSES AND BURROS</b>						
<b>Management Common to All Alternatives:</b>						
<ul style="list-style-type: none"> <li>• Conduct regular gathers to maintain populations within AMLs.</li> <li>• Conduct fertility control research in some or all HMAs.</li> <li>• Conduct a regular aerial population census – at least every three years – in order to monitor habitat conditions and population levels.</li> <li>• Collect genetic data for each of the herds during gathers to establish baseline information for each herd.</li> </ul>						
<b>Management Action</b>		<b>No Action Alternative</b>	<b>Alternative 1 Economic</b>	<b>Alternative 2 Ecosystem</b>	<b>Alternative 3 Traditional</b>	<b>Preferred Alternative</b>
<b>Manage wild horses within established HMAs</b>	<b>(acres)</b>	3	3	2	3	3
	<b>(number)</b>	828,569	828,569	813,686	828,569	828,569
<b>Maintain populations within AMLs (AML - number)</b>		513-848	513-848	503-823	513-848	513-848

<b>WILD HORSES AND BURROS (continued)</b>					
<b>Prioritize selection of animals returned after gathers based on specific traits:</b>	Historical traits (type, size, color, conformation)	Select traits most desirable to public for adoption	No selection by traits	Historical traits (type, size, color, conformation)	Historical traits (type, size, color, conformation)
<b>Develop seasonal facilities for public viewing of wild horses</b>	No	Yes	No	Yes	Yes
<b>Develop facilities at Litchfield Corral for public education and adoptions</b>	No	Yes	No	Yes	Yes
<b>WILDLIFE &amp; FISHERIES</b>					
<b>Federally Listed Species</b>					
<b>Management Common to All Alternatives:</b>					
<p><b><i>Carson Wandering Skipper</i></b></p> <ul style="list-style-type: none"> <li>• Cooperate as a partner on recovery plan where Carson wandering skipper populations are found on BLM-administered lands.</li> <li>• Conduct surveys to determine habitat suitability</li> </ul> <p><b><i>Bald Eagle</i></b></p> <ul style="list-style-type: none"> <li>• Conduct annual surveys to monitor bald eagle nest sites, verify presence or absence of individuals, and monitor reproductive success.</li> <li>• Conduct annual mid-winter surveys with cooperators (surveys cover entire perimeter of Eagle Lake).</li> <li>• Implement seasonal protection measures and buffer zones as appropriate for permitted activities when identified (See Table 2.25-1).</li> <li>• Manage forest habitat within suitable habitat (generally within 1 mile of large water bodies) to retain potential nest trees (≥ 24 inches dbh).</li> <li>• Develop GIS information for nesting, roosting, and foraging areas.</li> </ul> <p><b><i>Lahontan Cutthroat Trout</i></b></p> <ul style="list-style-type: none"> <li>• Cooperate with CDFG on local planting of hatchery stock and related habitat issues.</li> </ul> <p><b><i>Yellow-billed Cuckoo</i></b></p> <ul style="list-style-type: none"> <li>• Develop action plan if populations are found to occur on BLM-administered lands.</li> <li>• Contribute to survey efforts as appropriate.</li> </ul>					

<b>State-Listed and BLM Sensitive Species</b>
<b>Management Common to All Alternatives:</b>
<ul style="list-style-type: none"> <li>• Cooperate with partners to obtain information on state-listed and BLM sensitive species occurrence, abundance, and distribution within the field office area. Develop a GIS database to document and track information on these species.</li> <li>• Implement seasonal protection measures and buffer zones as appropriate for permitted activities when identified.</li> </ul>
<b>Ungulates</b>
<b>Management Common to All Alternatives:</b>
<ul style="list-style-type: none"> <li>• Use plantings, seedings, or other vegetation management such as willow thinning or enhancement to maintain and improve terrestrial and aquatic habitats.</li> <li>• Control cheatgrass and other annual grasses and noxious weeds using IWM to improve habitat conditions for ungulates and other native wildlife species.</li> <li>• Reduce invasive juniper where encroachment has adversely impacted ungulate habitat. Recovery efforts may require mechanical treatments, including reseeding.</li> <li>• Cooperate with state wildlife agencies to amend and update their herd management plans for ungulates.</li> <li>• Develop GIS information for habitat use areas, herd management areas, and hunting zones.</li> <li>• If Rocky Mountain elk populations become established within the field office area, coordinate with state wildlife agencies and other cooperators, including livestock operators, to develop and implement management plans.</li> <li>• Voluntary changes or conversions of existing domestic sheep grazing permits from domestic sheep to cattle grazing permits would provide ELFO the opportunity to coordinate with state wildlife agencies and other cooperators in developing a reintroduction plan for California bighorn sheep prior to reintroduction efforts.</li> </ul>
<b>Sagebrush Ecosystems and Sagebrush Obligate/Associated Species</b>
<b>Management Common to All Alternatives:</b>
<ul style="list-style-type: none"> <li>• Implement the <i>Conservation Strategy for Sage-Grouse and Sagebrush Ecosystems Within the Buffalo-Skedaddle Population Management Unit</i> (Northeast California Sage-Grouse Working Group, 2006).</li> <li>• Use plantings, seedings, or other vegetation management to maintain and improve terrestrial and aquatic habitats.</li> <li>• Manage sagebrush habitats to maintain diversity of native understory vegetation. Reduce invasive juniper to enhance sagebrush ecosystems. Implement timber and fuels treatments to restore natural disturbance processes.</li> <li>• Implement seasonal protection measures and buffer zones as appropriate for permitted activities when identified (See Table 2.25-1).</li> <li>• Reduce or control invasive non-native plants using IWM to improve habitat conditions for sagebrush obligate wildlife species.</li> <li>• Avoid practices that permanently convert sagebrush habitat to non-native grassland or agricultural land.</li> </ul>

<b>Other Native Wildlife Species</b>
<b>Management Common to All Alternatives:</b>
<ul style="list-style-type: none"> <li>• Use plantings, seedings, or other vegetation management to maintain and improve terrestrial and aquatic habitats.</li> <li>• Manage migratory birds in accord with the Migratory Bird Treaty Act and Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds.</li> <li>• Follow BLM policy, guidelines, current conservation plans, MOUs, and BMPs in the management of native wildlife species and their habitats. Such plans include Partners in Flight <i>“Birds in a Sagebrush Sea”</i> and BLM Nevada’s <i>“Migratory Birds Best Management Practices for the Sagebrush Biome”</i> for managing sagebrush habitats for birds, and the Nevada Bat Conservation Plan (2006).</li> <li>• Maintain or enhance biodiversity to sustain healthy multi-aged stands of aspen, mountain mahogany, oak woodlands, riparian and wetland areas, springs, and a variety of mountain shrub communities.</li> <li>• Provide and maintain sufficient water distribution to meet the needs of upland game birds and other wildlife species.</li> <li>• Implement seasonal protection measures and buffer zones as appropriate for permitted activities when identified (See Table 2.25-1).</li> <li>• Coordinate reintroductions, augmentations, and translocations of native species with state wildlife agencies, and adhere to BLM Manual 1745-Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife and Plants.</li> </ul>
<b>Native and Non-Native Fish and Other Aquatic Species</b>
<b>Management Common to All Alternatives:</b>
<ul style="list-style-type: none"> <li>• Use plantings, seedings, or other vegetation management to maintain and improve terrestrial and aquatic habitats.</li> <li>• Use existing stream inventory data as a baseline to develop stream-specific implementation plans.</li> <li>• Improve streams and springs not in PFC.</li> <li>• Maintain native fish-bearing streams in proper water quality and riparian function and in accord with BLM Land Health Standards, Guidelines for Livestock Grazing, PFC, and BMPs.</li> <li>• Design and implement projects using BMPs for restoration and rehabilitation of streams, including maintaining or improving minimum pool depths, increasing clean spawning gravels, and implementing bank stabilization measures where needed.</li> <li>• Coordinate with state wildlife agencies to implement management actions in accord with their plans, including planting of fish in suitable waters.</li> <li>• Coordinate with local county fish and game commissions and local sportsmen’s groups to determine management priorities and enhancement opportunities.</li> </ul>

<b>Management Actions for all Wildlife Groups (continued)</b>					
<b>Promote opportunities for wildlife interpretation and develop interpretive guides/programs/sites</b>	No	Yes	No	Yes	Yes
<b>Manage suitable habitat to retain forest characteristics for California spotted owls</b>	Not emphasized	Not emphasized	Manage forest stand characteristics to provide suitable habitat within its range	Not emphasized	Manage forest stand characteristics to provide suitable habitat within its range

## Impacts Summary Table

	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
	Smoke from annual prescribed burning (maximum of 1500 acres) would result in negligible to minor short-term adverse affects. A moderate long-term beneficial effect would result from actions implemented to reduce wildland fire potential.	Smoke from annual prescribed burning and wildland fire use (maximum of 15,000 acres) would result in negligible to minor short-term adverse affects. A moderate long-term beneficial effect would result from actions implemented to reduce wildland fire potential.	Same as Alternative 1, except a maximum of 500 acres would be treated annually with prescribed fire.	Same as Alternative 2.

<b>Cultural and Paleontological Resources</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>The No Action Alternative would result in moderate to major adverse effects to individual cultural resource sites. Adverse impacts would result from continued current livestock management, wild horse grazing, and unrestricted off-highway vehicle travel.</p> <p>No designations of archaeological ACECs would occur, but 13 sites (9,084 acres) would be managed as CRMAs to protect sensitive and unique cultural areas. Long term minor to moderate benefits would result as CRMA objectives and land health standards are gradually implemented. Additional benefits would result as wild horses become managed within desired AMLs.</p>	<p>Moderate to major adverse impacts would result from the expansion of livestock grazing and removal of some protective fencing. The number of CRMAs would be reduced to 10, and only 1,146 acres would be managed under these guidelines.</p> <p>Minor adverse impacts would also occur from increased recreation, resulting in higher traffic to cultural resource sites. This would be mitigated somewhat by a new emphasis on ecotourism which would have minor to moderate beneficial effects.</p> <p>Moderate to major benefits would occur to individual cultural sites by restricting OHV travel to existing or designated routes on 99% of the field office area. This would greatly reduce disturbance to surface sites and soil erosion caused by cross-country travel.</p>	<p>Alternative 2 would result in negligible to minor adverse impacts, and provides moderate to major beneficial effects to cultural resources. CRMAs would be designated on 17 sites, and two cultural ACECs would be designated providing increased protection and management of cultural resources.</p> <p>Livestock grazing areas would be rested 2 out of every 3 years, reducing damage to individual sites.</p> <p>Cultural sites would be protected from OHV traffic and livestock damage. Buffer zones would be established and management would emphasize land health.</p> <p>Additional benefits would result as wild horses become managed within desired AMLs.</p>	<p>Impacts resulting from Alternative 3 are similar to the No Action Alternative, with the following exceptions: livestock grazing would result in higher adverse impacts, as the number of grazing allotments that receive grazing rest annually would be reduced, and new exclosures would not be used to protect sensitive resources.</p> <p>Moderate to major benefits would occur to individual cultural sites by restricting OHV travel to existing or designated routes on 99% of the field office area. This would greatly reduce disturbance to surface sites and soil erosion caused by cross-country travel.</p>	<p>The Preferred Alternative would result in similar impacts to Alternative 2, except that negligible to moderate adverse impacts would result from livestock and wild horse grazing from trampling damage to individual sites.</p> <p>Moderate to major beneficial effects to cultural resources would result from the designation of 17 CRMAs on about 60,798 acres, and two cultural ACECs, providing increased protection and management of cultural resources.</p> <p>Cultural sites would be protected from cross-country OHV traffic. Buffer zones would be established and management would emphasize land health.</p> <p>Additional benefits would result as wild horses become managed within desired AMLs.</p>

<b>Energy and Minerals</b>				
<b>Energy and Minerals / Leasable</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>Under the No Action Alternative, the combined impact to leasable energy and mineral activities is expected to be minor due to the relatively low number of acres that are 'Closed', fall under permanent NSO rules, or require restrictive stipulations.</p> <p>A total of 642,408 acres (63%) of BLM-administered lands would be 'Open' to mineral leasing under standard lease terms. The existing WSAs—380,359 acres (37%)—would remain 'Closed' to leasable minerals, as required from the BLM Wilderness IMP (BLM 1995).</p>	<p>Under Alternative 1 the combined impact to leasable energy and mineral activities is expected to be negligible to minor due to the relatively low number of acres that are 'Closed', fall under permanent NSO rules, or require restrictive stipulations. A total of 602,427 acres (59%) of lands would be 'Open' to mineral leasing under standard lease terms.</p> <p>A minor beneficial effect would potentially occur due to realty actions, new road construction, and additional lands 'Open' to leasable minerals if WSA designations are released from Congress.</p>	<p>Leasable energy and mineral development under Alternative 2 would have minor to moderate adverse impacts because of increased restrictions. The total amount of lands 'Open' to mineral leasing under standard lease terms would be reduced from 63% of BLM-administered lands to 38%. 417,435 acres would be 'Closed' to mineral leasing including the Eagle Lake Basin ACEC, Bizz Johnson SRMA, and existing WSAs. Permanent NSO restrictions would apply to 76,922 acres to protect unique resources. Seasonal and other restrictions would apply to 137,071 acres. Other restrictive stipulations would apply to lands within 0.60 to 2.0 miles of greater sage-grouse leks.</p> <p>All of these actions would reduce the amount of land available for development, and/or increase associated costs.</p>	<p>Under Alternative 3, the combined impact to leasable energy and mineral activities is expected to be negligible to minor due to the relatively low number of acres that are 'Closed', fall under permanent NSO rules, or require restrictive stipulations.</p> <p>Under this alternative, 591,337 acres (59%) of BLM-administered lands would be 'Open' to mineral leasing under standard lease terms.</p> <p>A minor beneficial effect would potentially occur due to realty actions, new road construction, and additional lands 'Open' to leasable minerals if WSA designations are released from Congress.</p>	<p>The Preferred Alternative would have minor to moderate adverse impacts because of increased restrictions. 414,679 acres would be 'Closed' to mineral leasing including Eagle Lake Basin ACEC and existing WSAs. 391,339 (38%) of BLM-administered lands would be 'Open' to mineral leasing under standard lease terms. Permanent NSO restrictions would apply to 69,522 acres to protect unique resources; and seasonal use restrictions would apply to 147,227 acres. Other NSO restrictions would apply to the following: lands 0.25 to 0.60 miles from sage-grouse leks, and lands 0.25 to 0.50 miles from known raptor nests, and pronghorn kidding grounds.</p> <p>A minor benefit would result from realty actions, new road construction, and additional lands 'Open' to leasable minerals if WSA designations are released by Congress.</p>

Energy and Minerals / Locatable				
No Action Alternative	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
<p>The combined impact to locatable mineral activities is expected to be negligible, as 1,022,767 acres (100%) of BLM-administered lands would be 'Open' to locatable mineral activities. Existing WSAs— 380,359 acres (37%)—would continue to be regulated by the Wilderness IMP: All WSAs are 'Open' to exploration for and development of locatable minerals but would be limited to activities that do not require reclamation, unless the operation had established grandfathered uses or valid existing rights on October 21, 1976.</p> <p>Locatable mineral development and exploration within ACECs would require preparation and approval of a plan of operations before their development.</p>	<p>Under the Economic Development Alternative, the combined impact to locatable mineral activities is expected to be negligible to minor.</p> <p>1,020,272 acres would be 'Open' to locatable mineral exploration and development. The management approach would be the same as under the No Action Alternative. The Susan River ACEC—2,495 acres—would be recommended for withdrawal from mineral entry, in order to protect its unique resources.</p> <p>A minor beneficial effect would occur from realty actions, new road construction, and reduced restrictions if WSAs are released by Congress.</p>	<p>Alternative 2 would result in minor adverse impacts to locatable minerals due to an increase in acres 'Closed' and additional restrictions and stipulations. This alternative reduces total lands available to locatable minerals to 969,885 acres (95%) of lands.</p> <p>52,822 acres would be withdrawn from locatable minerals within six ACECs. However, most lands within these ACECs have low potential for locatable mineral extraction.</p>	<p>Same as No Action Alternative.</p>	<p>The Preferred Alternative would have negligible adverse effects on locatable mineral exploration, development, and extraction because only 8,406 acres would be 'Closed' within four ACECs, and restrictive mitigation would be limited. Conflicts with other resources would be resolved through mitigation measures.</p> <p>A minor benefit would result from realty actions, new road construction, and less restrictions if WSA designations are released by Congress.</p>

<b>Energy and Minerals / Saleable</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>The No Action Alternative would have minor adverse impacts to saleable mineral activities. A total of 639,753 acres (63%) of BLM-administered lands would be 'Open' to saleable mineral activities. Areas 'Closed' to saleable minerals include all existing WSAs, Bizz Johnson SRMA, and the Pine Dunes RNA. The existing WSAs—380,359 acres (37%)—would continue to be regulated by the Wilderness IMP.</p> <p>Mineral materials would continue to be provided for BLM, state, county, and city uses from existing pits or previously closed pits.</p> <p>The entire field office area would remain 'Open' to collection of decorative stone and flat rock, according to BLM policies.</p>	<p>Alternative 1 would have minor adverse effects to saleable mineral activities, and minor benefits. A total of 637,008 acres (62%) of BLM-administered lands would be 'Open' to saleable mineral activities. WSAs and three ACECs would be 'Closed' to saleable mineral disposal. Emphasis would be to expand local and commercial uses.</p> <p>Existing pits would be expanded as needed to meet increases in local demand. New community pits would be opened in other areas as needed.</p> <p>The entire field office area would remain 'Open' to collection of decorative stone and flat rock, according to BLM policies, and commercial uses would be emphasized.</p>	<p>Alternative 2 would have minor to moderate adverse effects on saleable mineral exploration, and extraction because of increased acreage 'Closed' and additional restrictions and stipulations. The total lands 'Open' to saleable minerals would be reduced to 553,011 acres (54%). 469,756 acres within WSAs and seven ACECs would be 'Closed' to saleable minerals.</p> <p>Existing community sand and gravel pits would remain open, but would not be expanded as material becomes exhausted.</p> <p>In addition, the entire field office area would be 'Closed' to all collection of decorative stone and flat rock.</p>	<p>Same as Alternative 1.</p>	<p>The Preferred Alternative would have minor adverse effects and minor benefits to saleable mineral exploration, development, and extraction. Under this alternative 634,002 acres (62%) of BLM-administered lands would be 'Open' to saleable minerals activities. 'Closed' areas include existing WSAs and four ACECs. Sand and gravel would be provided for the local community within existing pits, and expansion would be allowed as needed to respond to local demand. Conflicts with other resources would be resolved through mitigation measures.</p> <p>The majority of the field office area would remain open to collection of decorative stone and flat rock, according to BLM policies. Commercial operations would be allowed in designated areas. A minor benefit would result from new road construction, and if Congress releases WSAs from wilderness study.</p>

<b>Energy and Minerals / Renewable Energy</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>The No Action Alternative is expected to have minor to moderate site-specific adverse effects on renewable energy development, primarily because 37% of the field office would be excluded for renewable energy development. In addition, 75% of the field office would be managed to meet VRM Class I, II and III objectives.</p>	<p>Alternative 1 is expected to have minor to moderate site-specific adverse effects on renewable energy development, primarily because 37% of the field office would be excluded for renewable energy development. In addition, 79% of the field office would be managed to meet VRM Class I, II and III objectives.</p> <p>Minor beneficial effects may accrue from realty actions, and if Congress releases WSAs from wilderness study.</p>	<p>Alternative 2 is expected to have moderate to major site-specific adverse effects on renewable energy development, primarily because 46% of the field office would be excluded for renewable energy development. In addition, 92% of the field office would be managed to meet VRM Class I, II and III objectives.</p> <p>Minor beneficial effects may accrue from realty actions, and if Congress releases WSAs from wilderness study.</p>	<p>Same as Alternative 1.</p>	<p>The Preferred Alternative is expected to have moderate to major site-specific adverse effects on renewable energy development, primarily because 46% of the field office would be excluded or avoided for new development. In addition, 93% of the field office would be managed to meet VRM Class I, II and III objectives.</p> <p>Minor beneficial effects may accrue from realty actions and if Congress releases WSAs from wilderness study.</p>

<b>Environmental Justice</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
Impacts on environmental justice communities from the proposed management actions are not expected to be significant.	Same as No Action Alternative.	Same as No Action Alternative.	Same as No Action Alternative.	Same as No Action Alternative.
<b>Forestry</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
Moderate adverse impacts would result to forestland health from accumulation of fuels throughout non-commercial forests, increasing the probability of large wildfires. Negligible benefits would result from hazardous fuels reduction treatments on less than 500 acres per year. Moderate beneficial impacts would result from forest management activities that would extend to 8,000 (43%) of the 18,500 acres of commercial and low-site forests. Mechanical treatments would be allowed on 400 acres annually, thereby removing saleable logs and canopy fuels. Effects of fuels reduction in these stands as a component of forestry practices would be improved forest health and decreased risk of a stand-replacing fire.	Minor to moderate adverse impacts would result to forestland health from accumulation of fuels throughout non-commercial forests, increasing the probability of large wildfires. Minor beneficial impacts would result to low-site forests and woodlands from fuels reduction treatments up to 1,500 acres annually. Moderate to major beneficial impacts would result from forest management activities that would extend to 72% of the 18,500 acres of commercial and low-site forest, including mechanical treatments on 670 acres annually, thereby removing saleable logs and canopy fuels. Fuel reduction in these stands would improve forest health and decrease the risk of a stand-replacing fire.	Minor adverse impacts would result to forestland health from accumulation of fuels throughout non-commercial forests, increasing the probability of large wildfires. Moderate benefits would result from hazardous fuels reduction treatments on up to 10,000 acres per year. Major beneficial impacts would result from forest management activities that would extend to nearly all of the 18,500 acres of commercial and low-site forest. Harvesting would be allowed on 1,100 acres annually, thereby removing saleable logs and canopy fuels. Fuel reduction in these stands as part of forestry would improve forest health and decrease the risk of a stand-replacing fire.	Same as Alternative 1.	Same as Alternative 2.

<b>Fire and Fuels</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>The No Action Alternative would have negligible to minor adverse impacts to the fire and fuels program, due to continuation of a full suppression AMR, low amounts of fuels reduction treatments, and 57% of all acres 'Open' to OHV use.</p> <p>Full suppression fire management would continue on 100% of lands, resulting in continued buildup of fuels, and increased probability of large wildfires. Routes 'Open' for OHV use would pose an increased risk of human-induced wildfire.</p> <p>The No Action Alternative would also result in negligible beneficial impacts. Fuels reduction treatments would occur at a rate of less than 500 acres annually. Livestock grazing would occur at present levels, resulting in negligible beneficial effects of restoring natural fire regimes.</p>	<p>Alternative 1 would result in negligible to minor adverse impacts to the fire and fuels program, and minor benefits. 100% of the field office area would continue to use full suppression management, resulting in the buildup of fuels, increasing the probability of large wildfires.</p> <p>However, minor benefits would accrue as hazardous fuels reduction treatments would occur on up to 5,000 acres per year, restoring up to 10,000 acres of native plant communities over the life of the plan.</p> <p>Livestock grazing would occur at present levels, or slightly higher, resulting in negligible beneficial effects of restoring natural fire regimes.</p> <p>Almost the entire field office area would implement OHV restrictions to existing or designated routes, substantially reducing the risk of human-induced wildfires.</p>	<p>Alternative 2 would result in negligible adverse effects and moderate beneficial impacts, as the use of AMR for wildland fire suppression is emphasized, livestock grazing is reduced, and OHV use is restricted. The use of AMR and WFU would result in a greater degree of restoration of native plant communities and their associated fire regimes. Fuels treatments would result in additional restoration benefits on up to 200,000 acres over the life of the plan.</p> <p>Reduction of livestock grazing would contribute to the restoration of natural fire regimes and favorable Condition Class, resulting in greater benefits to the fire and fuels program than under other alternatives.</p> <p>With no designation of 'Open' areas for OHV use, the risk of human-induced ignitions would be substantially reduced.</p>	<p>Alternative 3 would result in minor adverse impacts to the fire and fuels program. Impacts are the same as Alternative 1, except additional adverse impacts would result from routes within 578,708 acres being 'Open' for OHV use, which would pose an increased risk of human-induced wildfire.</p>	<p>This alternative would provide negligible adverse effects, and moderate beneficial impacts to fire and fuels management, similar to Alternative 2. All actions are the same as described under Alternative 2, except that livestock grazing would occur at present levels, with an increased emphasis on improving land health.</p> <p>Major improvements to livestock grazing strategies and land health would result in restoration of native plant communities, causing minor beneficial effects by restoring natural fire regimes.</p> <p>A very limited area (419 acres) would be designated 'Open' for OHV use, substantially reducing the risk of human-induced ignitions.</p>

<b>Lands and Realty</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>The No Action Alternative would negligibly affect lands and realty. Priority of lands for potential acquisition would be inholdings within three WSAs and small parcels which have known cultural resource values.</p>	<p>Alternative 1 would result in minor adverse effects to lands and realty. Disposal of lands for local economic purposes would be prioritized. Priority of lands for potential acquisition would include inholdings in all WSAs, and other parcels which would provide access for recreational activities.</p>	<p>Alternative 2 would result in negligible adverse and minor benefits to lands and realty. This alternative emphasizes acquisition of lands adjacent WSAs, ACECs, and WSR segments. Lands purchased would be managed to improve the unique resources associated with specific designations. Potential disposal of parcels would be limited to lands with no significant resources or values.</p>	<p>Impacts are similar to Alternative 1, except that acquisition of WSA inholdings would not be a priority. Disposal of parcels would be prioritized to enhance local community economic growth.</p>	<p>The Preferred Alternative would result in negligible adverse and minor benefits to lands and realty. This alternative emphasizes acquisition of lands with high resource values, and improved public access to recreational activities.</p> <p>Potential disposal of parcels would be limited to lands with no significant resources or values.</p>
<b>Rights-of-Way</b>				
<p>The No Action Alternative would result in minor adverse effects to ROWs. Seven WSAs are rights-of-way exclusion zones (380,359 acres). 160 acres within the Pine Dunes RNA would be an avoidance area.</p>	<p>Alternative 1 would result in minor adverse effects to ROWs. Seven WSAs are rights-of-way exclusion zones (380,359 acres). 2,905 acres within two ACECs would be avoidance areas.</p>	<p>Alternative 2 would result in minor to moderate adverse effects to ROWs. Seven WSAs are ROW exclusion zones (380,359 acres). 89,397 acres within seven ACECs would be avoidance areas.</p>	<p>Same as Alternative 1.</p>	<p>Same as Alternative 2.</p>

Livestock Grazing				
No Action Alternative	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
<p>The No Action Alternative would result in minor to moderate adverse effects on livestock grazing because of the acreage that is unavailable or limited to livestock use. Areas burned by wildfire or prescribed fire would be rested from livestock grazing at least two growing seasons following fire, resulting in minor short term adverse effects.</p> <p>Minor to moderate long-term benefits would result, however, as fuels treatments are expected to benefit rangelands by making them more productive and slightly increasing forage (AUMs) for livestock in the long term. Minor to moderate benefits would also result from actions to reduce wild horse use to meet AMLs. This would help restore a proper balance in forage use among wildlife, wild horses, and livestock, and would allow grazing permittees to graze at current permitted levels.</p>	<p>Alternative 1 is expected to have negligible adverse effects, and minor benefits to grazing. Available grazing lands would slightly increase with the opportunity for an increase of AUMs of forage where land health standards are being met. Additional forage would result from new seedings planted on up to 8,000 acres.</p> <p>Requiring only 40% of allotments to have rest or deferred grazing would be less restrictive and would need less labor from permittees. Increasing the season of use and opening more grazing areas would benefit operations.</p> <p>Increasing juniper and other fuels reduction would benefit livestock grazing because of increased understory vegetation and forage production.</p>	<p>Major adverse impacts would occur to livestock grazing operations due to increased restrictions and associated costs. All grazing areas would be rested two out of every three years, thereby directly reducing the grazing capacity by 67%. Existing seedings would not be restored, and would be allowed to return to native stands.</p> <p>The reduction in available forage and loss of flexibility would cause a large portion of the smaller livestock operations to become economically unfeasible. Alt 2 would also directly impact county revenue through loss of possessory interest tax levied on grazing permits. Beneficial effects of other management actions, including vegetation and fuels management that would enhance forage, would result in limited and minor benefits for livestock grazing by increasing forage availability. But these improvements would provide only a modest offset to the proposed reductions in AUMs.</p>	<p>Alternative 3 would result in effects similar to those under Alternative 1, with negligible adverse effects, and minor benefits to grazing. By requiring less fence maintenance, de-emphasizing grazing strategies, and permitting more AUMs of forage for livestock grazing, this alternative would benefit grazing by requiring less labor and allowing more grazing.</p> <p>However, long-term adverse effects to rangeland health goals would be expected as a result of a decrease of grazing management and an absence of fence maintenance in riparian areas. This would result in a long-term adverse impacts to grazing lands and the forage base.</p>	<p>The Preferred Alternative would result in overall minor impacts to grazing, with some moderate adverse impacts occurring in specific areas. Major improvements to livestock grazing strategies would increase labor for livestock handling, herding, repairing fences, and maintaining other range improvements.</p> <p>Up to 90,000 acres would be managed under new ACEC guidelines, potentially adding new grazing restrictions.</p> <p>Wild horse management would reduce herds to AMLs, as described for the No Action Alternative, and would restore a balance of forage use among livestock, horses, and wildlife.</p> <p>Beneficial effects from vegetation and fuels management would enhance forage availability in the long term.</p>

<b>Recreation and Visitor Services</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>The No Action Alternative would result in minor to moderate adverse effects and minor beneficial impacts to recreation. There is a risk of potential degradation of the natural character of the landscape from cross-country OHV use in about 57% of the field office area.</p> <p>Management for fire, wildlife, soils, vegetation, and forestry generally would result in localized and temporary adverse impacts that would disrupt activities or access. Most activities associated with these programs would enhance recreation experiences in the long term by retaining or improving the natural character and settings where recreation occurs. Restrictions to mineral development are the lowest of any alternative.</p> <p>Minor to moderate impacts would occur from mineral development in SRMAs.</p>	<p>Alternative 1 would result in minor adverse effects and moderate to major beneficial impacts to recreation. Adverse effects from fire, soils, wildlife, and forestry would be similar to those described for the No Action Alternative. Additional areas available to livestock grazing, and reduced emphasis on exclosures would cause minor adverse impacts to specific recreation areas.</p> <p>Restrictions to mineral development would be higher than the No Action Alternative, resulting in less adverse impacts to SRMAs. The natural setting for many recreational activities would be protected more due to a decrease in VRM Class IV designations.</p> <p>The designation of 25 miles of WSR segments would protect the natural setting of these areas.</p>	<p>Alternative 2 would result in negligible to minor adverse effects and moderate to major beneficial impacts to recreation. Alternative 2 would increase protection of the natural landscape setting for recreation activities by increasing VRM Class II areas, designating a substantial amount of area to the 'Primitive' ROS class, and designating 89,397 acres as ACECs. Restrictions to mineral development would be the highest of any alternative.</p> <p>While increased recreation opportunities would be associated with cultural resources and historic trails, new non-motorized opportunities would be reduced significantly because only 22 miles of new trails are proposed.</p> <p>Closing 29% of the field office area to OHV use would not significantly affect motorized opportunities because the areas do not contain a large number of routes.</p>	<p>Most effects under Alternative 3 would be similar to those under the No Action Alternative. There are fewer restrictions on mineral development than Alternatives 1 and 2, and impacts such as degrading natural settings and user conflicts would be higher than under those alternatives. The fewest miles of non-motorized trails would be developed under Alternative 3; and the benefits of new opportunities, dispersal of activities, and community connection would not be realized.</p>	<p>The Preferred Alternative would result in negligible to minor adverse effects and moderate to major beneficial impacts to recreation, and is most similar to Alternative 2, and to the Non-Motorized Trails section of Alternative 1.</p> <p>The Preferred Alternative would develop the highest number of miles of non-motorized trails, with 264 miles proposed, and would close about 25% of the field office area to OHV use. The non-motorized trails would provide extensive new recreation opportunities, promote dispersal of activities to minimize crowding, and provide strong community connection to area resources for local residents.</p> <p>OHV use would be limited to designated routes throughout most of the field office area, except for 419 acres designated as 'Open'.</p> <p>This would protect resources and reduce conflicts similar to management actions under Alternative 2.</p>

Recreation and Visitor Services (continued)				
No Action Alternative	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
<p>Continued livestock grazing and wild horse use is expected to negligibly affect most recreation experiences and activities. Minor benefits would result from excluding grazing to improve riparian conditions along streams, along lake shores, and around springs. These actions would benefit the recreational use of those areas by improving the natural appearance of the landscape, improving wildlife habitat, and eliminating visitor/livestock interactions.</p> <p>Development of 80.5 miles of non-motorized trails along with enhancements to historic trails would result in minor beneficial effects by providing new recreation opportunities, increasing history-related recreational activities, educating visitors about resources, and increasing community connections and activities for local residents.</p>	<p>Designation of two new SRMAs) would improve recreation experiences by focusing management to meet specific needs in each area. This would reduce use conflicts and limit activities that detract from the recreation experience or reduce public safety.</p> <p>Cross-country OHV use would be limited to 419 acres. This substantial reduction in area 'Open' to cross-country OHV travel would help reduce conflicts and maintain the natural setting for recreation activities.</p> <p>Non-motorized trail development would increase to 264 miles and would provide more new recreation opportunities and disperse visitors over a larger area to reduce overcrowding.</p>	<p>However, this restriction would enhance non-motorized experiences and reduce the potential for use conflicts.</p> <p>Restrictions to livestock grazing and a strong emphasis on land health would improve the natural setting for many recreation activities.</p>		<p>Restrictions on mineral development activities in ACECs, WSRs, WSAs, and SRMAs are proposed under the Preferred Alternative, similar to Alternative 2, in order to protect the natural resources and recreation settings in these unique areas.</p> <p>Management actions implemented to improve livestock grazing and reduce wild horses to AMLs is expected to negligibly affect most recreation experiences and activities. Minor benefits would result from excluding grazing to improve riparian conditions along streams, along lake shores, and around springs. These actions would benefit the recreational use of those areas by improving the natural appearance of the landscape, improving wildlife habitat, and eliminating visitor/livestock interactions.</p>

Social and Economic Conditions				
No Action Alternative	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
<p>Combined management actions from the No Action Alternative would be expected to generate approximately nine jobs and \$300,000 in annual personal income. Total employment in the three-county study area would increase by approximately 0.004%, and total personal income would increase by 0.002%.</p> <p>The increase in economic activity in the three-county study area attributable to management actions under the No Action Alternative would be very small, and is considered a negligible impact.</p>	<p>Alternative 1 would be expected to generate approximately 38 jobs and \$1,200,000 in annual personal income. Total employment in the three-county study area would increase by approximately 0.001% and total personal income would increase by 0.01%.</p> <p>Impacts are similar to No Action, except that additional proposed recreation designations in this alternative are expected to increase the visitor use of public lands and the associated economic benefit of rural tourism.</p>	<p>Alternative 2 would result in minor to moderate adverse impacts to local industries due to a net loss of approximately 97 jobs and a reduction of \$760,000 million in annual personal income. All of the loss in employment and personal income is attributable to the reduction in commercial livestock grazing.</p> <p>Although serious impact would result to individual operators, total employment in the three-county study area would be reduced by approximately 0.03%. Total personal income would be reduced by approximately 0.01%.</p> <p>Employment and income would increase slightly as a result of proposed treatment of fuels, vegetation management, and timber harvesting.</p>	<p>Impacts are similar to No Action. Alternative 3 would generate approximately 37 jobs and \$1,200,000 in annual personal income. Total employment in the three-county study area would increase by approximately 0.001% and total personal income would increase by 0.01%.</p> <p>Although not quantified, other management actions also would slightly increase regional economic activity.</p>	<p>The Preferred Alternative would generate the most employment, 55 jobs, and the most annual personal income, \$1,740,000, of any alternative. Total employment in the three-county study area would increase by approximately 0.02% and total personal income would increase by 0.01%. The increase in economic activity in the three-county study area would be a negligible to minor positive impact.</p> <p>Employment and income would increase slightly as a result of proposed treatment of fuels, vegetation management, and timber harvesting.</p> <p>Additional recreation designations proposed in the Preferred Alternative are expected to increase visitor use of public lands and the associated economic benefit of rural tourism.</p>

<b>Soils</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>This alternative would result in minor to moderate adverse impacts, resulting from extensive public access, OHV use, livestock and wild horse grazing, and potential minerals development that would affect soil resources through increased exposure to ground-disturbing activities. However, no net loss of soil productivity would be allowed, hence impacts are not expected to be significant.</p> <p>OHV travel would be unrestricted on the majority of acres, contributing adverse impacts in the form of soil disturbance, compaction, and erosion.</p> <p>Use of buffers would result in beneficial effects, but less so than Alternative 1 and 2 because they would be applied only on a case-by-case basis. The potential for soil degradation would remain where threats to soil resources exist but have not yet been identified.</p>	<p>Moderate to major adverse impacts would result from increased development that would affect soil resources through increased exposure to ground-disturbing activity. These include: the development of two SRMAs; increased livestock grazing; and the expansion of recreation sites and trails. A slight increase in restrictions on mineral development in the form of closures or NSO stipulations would reduce potential impacts on soils in these areas.</p> <p>Moderate beneficial effects would result from the implementation of 50-foot buffers around all sensitive sites, and restoration of existing seedings.</p> <p>OHV use within 99% of the field office area would be 'Limited to Existing or Designated Routes', limiting adverse impacts to soils from cross-country travel.</p>	<p>Minor adverse impacts would result from ground disturbing activities as enhanced protection measures would be put into place. Moderate beneficial effects would result from the implementation of 100-foot buffers around all sensitive sites. The area 'Open' to mineral extraction would be the smallest among all of the alternatives.</p> <p>Lands would be rested from livestock grazing two out of three years, and riparian areas and aspen stands would be fenced, providing more protection than any other alternative.</p> <p>Beneficial impacts would result from closing approximately 300,000 acres to motorized travel, and designating these as ROS class 'Primitive'. OHV use would be largely 'Limited to Designated Routes', which would eliminate effects on soils in areas suitable for cross-country travel.</p>	<p>Alternative 3 would result in moderate to major adverse impacts to soil resources, from 'Open' OHV use and additional livestock grazing. OHV use is likely to result in continued degradation of soil resources due to compaction and erosion associated with OHV travel—both on roads and trails and in cross-country areas. Grazing actions would be difficult to mitigate without some rest periods required, and intense management actions—increased herding, fencing, vegetation treatment, and water development—would be required to maintain land health standards.</p> <p>Unless livestock grazing practices are intensely managed, Alternative 3 would result in moderate short- and long-term adverse effects on soil resources, particularly in sensitive areas such as riparian areas.</p>	<p>The Preferred Alternative would result in minor adverse impacts to soils, and moderate beneficial effects. The effects on soil resources are most similar to those described for Alternative 2.</p> <p>Minor adverse impacts would result from ground disturbing activities, such as increased public access, livestock and wild horse grazing, and potential minerals development. No net loss of soil productivity would be allowed; hence impacts are not expected to be significant.</p> <p>Prescribed fire and vegetation treatments would adversely affect soils in the short term but would lead to improved long term ecosystem health. Moderate beneficial impacts would be realized as several enhanced protection measures are put into place.</p>

Soils (continued)				
	<p>Actions associated with the designation of two ACECs would reduce soil disturbance associated with development of ROWs, cross-country travel, and surface disturbance associated with mining.</p>	<p>Soil protection measures would be incorporated in the development of seven ACECS, on 89,397 acres.</p>		<p>OHV use within 99% of the field office area would be 'Limited to Designated Routes', limiting adverse impacts to soils from cross-country travel.</p> <p>This alternative has the second highest restrictions to mineral development. Leasable minerals development would be 'Closed' within WSAs and the Eagle Lake ACEC.</p> <p>Actions associated with the designation of seven ACECs would reduce soil disturbance associated with ROW development, cross-country travel, and surface disturbance associated with mining.</p>

<b>Special Area Designations</b>				
<b>Areas of Critical Environmental Concern</b>				
<b>Pine Dunes RNA/ ACEC</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>The No Action Alternative would result in negligible adverse impacts and minor benefits to the existing Pine Dunes RNA (160 acres). The RNA would be designated as an ACEC to continue protection of the ponderosa pines and adjacent ecosystem. There would be no impacts from livestock or wild horse grazing, timber harvesting or woodcutting as these uses would remain closed. The area would also remain 'Closed' to locatable and saleable mineral development. NSO restrictions would apply to leasable minerals. The area's scenic qualities would be managed under VRM Class III criteria.</p> <p>Minor benefits would result from efforts to acquire (from willing sellers) adjoining private lands, and extend the current exclosure fencing around the new parcels.</p>	<p>Same as No Action Alternative.</p>	<p>Alternative 2 would result in negligible adverse impacts, and moderate benefits to the existing Pine Dunes RNA. Use restrictions would remain in place as described in No Action.</p> <p>Moderate benefits would result from efforts to acquire (from willing sellers) an additional 2,127 acres of adjoining sand dune habitat. Beneficial effects from a greatly enlarged RNA/ACEC (2,287 acres) would include protecting the majority of the soil/vegetation associations that form this unique dune habitat.</p> <p>The expanded RNA/ACEC would be managed under VRM Class II criteria to retain the existing character of the landscape.</p>	<p>Same as No Action Alternative.</p>	<p>Same as Alternative 2.</p>

<b>Eagle Lake Basin ACEC</b>				
<p>The No Action Alternative would result in minor adverse and beneficial impacts to the existing Eagle Lake Basin SRMA. The area would not be designated as an ACEC and would continue to be managed under the provisions of the (current) Eagle Lake Basin Plan. Management of the SRMA emphasizes primitive, self-contained camping (on portions of the Eagle Lake shoreline), protecting water quality, and the preservation of scenic resources (VRM Class II).</p> <p>Bald eagle habitat would be protected under the requirements of the Endangered Species Act. OHVs would be limited to existing roads and trails, thus eliminating impacts from cross-country travel. Undeveloped shorelines would remain 'Closed' to OHVs.</p>	<p>Alternative 1 would result in minor adverse and beneficial impacts to the existing Eagle Lake Basin SRMA, and is similar to No Action, except for the following.</p> <p>The entire area would be 'Closed' to leasable mineral development. Trail construction would be increased to 31 miles of new trails. The Merrillville-Bieber Wagon Road would be cleared of brush and rock-fall, thereby opening the trail adjacent to Eagle Lake (where wildlife-viewing opportunities are good and historic trail interpretation would take place).</p> <p>There would also be increased emphasis on invasive juniper removal to create natural-appearing openings and irregular edges.</p>	<p>Alternative 2 would result in negligible adverse and moderate beneficial impacts to the existing Eagle Lake Basin. 34,320 acres would be designated as the Eagle Lake Basin ACEC. ACEC designation would include prioritization for the acquisition of private in-holdings and adjacent lands. Additional funding would be sought to prevent development of shoreline areas, provide public access for fishing and wildlife-viewing, protect cultural resources and wildlife habitat, and develop literature and interpretive sites for visitors.</p> <p>OHVs would be 'Limited to Designated Routes' throughout the area and undeveloped shorelines will be 'Closed' to motor vehicles, thereby limiting impacts to well-establish routes.</p>	<p>Same as No Action Alternative, except that only 2 miles of non-motorized trails would be built.</p>	<p>The Preferred Alternative would result in negligible adverse and moderate beneficial impacts to the existing Eagle Lake Basin. Impacts are the same as Alternative 2, except that saleable and locatable mineral development would be permitted on a limited basis, providing ACEC values are sufficiently protected by restrictive stipulations.</p> <p>31 miles of non-motorized trails would be built, similar to Alternative 1.</p>

Eagle Lake Basin ACEC (continued)				
<p>Woodcutting would be authorized under permit in areas where its visual effects would not be seen from the lake or its shoreline. Timber harvesting would continue with stipulations to improve land health and protect natural, cultural, and wildlife resources.</p> <p>The entire area would be 'Open' to all energy and mineral activities.</p> <p>22.5 miles of non-motorized trails would be built, improving recreation experiences for hikers, horseback riders, and mountain-bikers.</p>		<p>The entire Eagle Lake Basin would be 'Closed' to all energy and mineral development in order to permanently protect its outstanding scenic qualities, fish and wildlife, and cultural resources. Recreational mining would be permitted, but would be limited to hand panning of tributary streams.</p> <p>Fuel-reduction, timber harvesting, and woodcutting would continue in a manner that would protect or enhance relevant and important ACEC criteria. Of special concern is the quality and quantity of groundwater, crucial to preserving the basins closed hydrology and Eagle Lake trout fishery.</p> <p>Only 7.5 miles of non-motorized trails would be built.</p>		

<b>North Dry Valley ACEC</b>				
<p>The No Action Alternative would result in minor adverse and beneficial impacts to the North Dry Valley area. The area would not be designated as an ACEC and would continue to be managed under general BLM policies. Livestock grazing would continue; however there is currently little use within most of the area due to limited water and forage.</p> <p>Wild horse management would achieve AMLs by 2008. Herd reduction is necessary to protect native vegetation and achieve numbers that can be sustained by available forage.</p> <p>The area would remain 'Open' to cross-country OHV travel, resulting moderate adverse impacts to cultural sites and wildlife habitats (especially pronghorn kidding grounds and raptor nesting sites). The area would remain 'Open' to all mineral development; however, future mineral activity is unlikely due to the volcanic basalt geology that dominates much of the area.</p> <p>If mineral development is proposed, BLM would impose stipulations to protect or mitigate impacts on natural and cultural resources.</p>	<p>Alternative 1 would result in minor adverse and moderate beneficial impacts to the North Dry Valley area. Uses and impacts are the same as No Action, except OHVs would be 'Limited to Designated Routes', limiting adverse impacts from cross-country travel.</p>	<p>Alternative 2 would result in negligible adverse and moderate beneficial impacts to the North Dry Valley area. 10,156 acres would be designated as the North Dry Valley ACEC. ACEC designation would focus management on protecting the relevant and important ACEC criteria; and a management plan would be developed to achieve this.</p> <p>Livestock grazing would continue, but would be managed to achieve land health standards, and would be allowed only one year out of every three. Use by wild horses and burros would also continue, and management would achieve AMLs by 2008.</p> <p>OHVs would be 'Limited to Designated Routes, thereby limiting impacts to well-traveled routes. The area would be 'Closed' to saleable minerals, and withdrawn from locatable minerals, avoiding any adverse impacts from surface disturbance from mining.</p> <p>NSO stipulations would be required for mineral leasing, to protect surface resources.</p>	<p>Same as No Action Alternative.</p>	<p>The Preferred Alternative would result in negligible adverse and moderate beneficial impacts to the North Dry Valley area. 10,156 acres would be designated as the North Dry Valley ACEC, and impacts are similar to Alternative 2, except for the following.</p> <p>Livestock grazing would be permitted annually—subject to the availability of natural forage and water. Compliance with land health standards would be mandatory. This would preclude grazing in dry years.</p> <p>The area would remain 'Open' to all mineral development; however, future mineral activity is unlikely due to the volcanic basalt geology that dominates much of the area. If mineral development is proposed, BLM would impose stipulations to protect or mitigate impacts on natural and cultural resources.</p>

<b>Buffalo Creek Canyons ACEC</b>				
<p>The No Action Alternative would result in minor adverse and beneficial impacts to the Buffalo Creek Canyons area. The area would not be designated as an ACEC and would continue to be managed for the most part according to the Wilderness IMP because most of the area falls within the Buffalo Hills and Poodle Mountain WSAs.</p> <p>Riparian and upland areas would be managed to meet land health standards. Scenic qualities would be preserved under VRM Class I and II objectives.</p> <p>Managed under the Wilderness IMP, the area is currently 'Closed' to leasable and saleable mineral development, and restricted to actions that do not require restoration for development of locatable minerals.</p> <p>OHVs would be 'Limited to Existing Roads and Trails', thereby restricting impacts to establish travel routes.</p> <p>Current management proposes to achieve AMLs for wild horses by 2008. Herd reduction is necessary to protect native vegetation and achieve numbers that can be sustained by available forage.</p>	<p>Same as No Action Alternative.</p>	<p>Alternative 2 would result in negligible adverse and moderate beneficial impacts to the Buffalo Creek Canyons area. 36,515 acres would be designated as the Buffalo Creek Canyons ACEC in order to protect the imposing scenic character of this canyon complex, and retain the natural setting of the historic Buffalo Hills Toll Road.</p> <p>ACEC designation would include prioritization for the acquisition and management of numerous springs and riparian areas currently under private ownership.</p> <p>The ability to manage these critical water sources would accelerate efforts to achieve land health standards through an improved ability to control grazing by wild horses and burros, as well as by domestic stock.</p> <p>Recreational use of the area (primarily hunting and historical sight-seeing) would be promoted. Lands within the Buffalo Hills and Poodle Mountain WSAs would receive ROS 'Primitive' classification. This would provide long term protection and preservation of the area's primitive and undeveloped scenic character—with or without wilderness designation.</p> <p>Livestock grazing would be allowed only one year out of three, in order to rapidly and easily achieve land health standards.</p>	<p>Same as No Action Alternative.</p>	<p>The Preferred Alternative would result in negligible adverse and moderate beneficial impacts to the Buffalo Creek Canyons area. 36,515 acres would be designated as the Buffalo Creek Canyons ACEC in order to protect the imposing, scenic character of this canyon complex and retain the natural setting of the historic Buffalo Hills Toll Road. Impacts are similar to Alternative 2, except for the following.</p> <p>Livestock grazing would be permitted annually—subject to the availability of natural forage and water. Grazing would be subject to compliance with land health standards.</p>

<b>Aspen Groves ACEC</b>				
<p>Quaking aspen (<i>Populus tremuloides</i>), California black oak (<i>Quercus kelloggii</i>), and silver buffaloberry (<i>Sheperdia argentea</i>) are relatively rare and unique plants that tend to occur in isolated stands within sagebrush-steppe ecosystems. The No Action Alternative would result in minor adverse and beneficial impacts to these special plant communities. These areas would be managed primarily to meet land health standards, and to promote wildlife habitat.</p>	<p>Alternative 1 would result in negligible adverse and moderate beneficial impacts to quaking aspen, California black oak, and silver buffaloberry stands. 2,745 acres would be designated as an ACEC to protect and improve management of aspen stands (1,407 acres), black oak (1,298 acres), and buffaloberry (40 acres). This would focus management attention on these uncommon but important plants in order to develop healthy stands in a diversity of seral stages, thereby increasing habitat diversity for a variety of wildlife for which these plants are crucial. An ACEC management plan would be developed following approval of this PRMP.</p> <p>The ACEC is judged necessary for these alternatives because of their emphasis on forage production and livestock grazing—especially when the effects of past grazing practices are considered.</p>	<p>Alternative 2 would result in negligible adverse and moderate beneficial impacts to quaking aspen, California black oak, and silver buffaloberry stands. An ACEC would not be designated. However, several management actions are proposed to protect these unique vegetation resources without the ACEC designation. These include: continued monitoring and treatment of aspen stands; fencing buffaloberry stands; and developing an implementation plan for management and monitoring of California Black Oak.</p> <p>In addition a strong emphasis on improving land health within these communities would be emphasized. Wildlife actions would aim to create multi-age stands of quaking aspen, and oak woodland habitats on up to 3,150 acres.</p>	<p>Same as Alternative 1.</p>	<p>Same as Alternative 2.</p>

<b>Aspen Groves ACEC (continued)</b>				
	<p>The ACEC management plan would include restrictions on livestock numbers, plus season-of-use restrictions. Other interventions may include livestock herding, exclosure fencing, prescribed fire (to stimulate aspen growth), and timber-harvesting stipulations for black oak stands. All buffaloberry stands would be fenced to exclude livestock as well as wild horses and burros.</p>	<p>Rest from livestock grazing would be implemented, where necessary, to allow tree saplings to grow above the reach of livestock. Grazing exclosures would be constructed at select sites where additional protection is needed. This would benefit individual plants and stands, by promoting health, vigor, and reproduction.</p>		
<b>Susan River ACEC</b>				
<p>The No Action Alternative would result in negligible adverse and moderate beneficial impacts to the Susan River area. Recreation would continue to be guided by the Bizz Johnson Trail SRMA Management Plan. Lands would be managed in compliance with land health standards and 'Proper Functioning Condition' for riparian areas.</p> <p>Public lands within this area are unavailable to livestock grazing; so negligible grazing impacts would occur.</p>	<p>Alternative 1 would result in negligible adverse and moderate beneficial impacts to the Susan River area. An ACEC would not be designated under Alternative 1, and impacts from land uses would be similar to the No Action Alternative.</p> <p>Six miles of the Susan River is recommended as suitable for Wild and Scenic River (WSR) status (with a "recreational" designation) under this alternative.</p>	<p>Alternative 2 would result in negligible adverse and major beneficial impacts to the Susan River area. 2,495 acres would be designated as the Susan River ACEC, adjacent to eight miles of the Susan River. WSR designation is also recommended for the same eight-mile stretch under Alternative 2. This would preserve the free-flowing character of this river segment and preclude construction of a dam or water diversion, adding additional protection to the area's relevant and important ACEC criteria.</p>	<p>Alternative 3 would result in negligible adverse and moderate beneficial impacts to the Susan River area, and impacts are the same as described under the No Action Alternative, except that mineral leasing would require NSO stipulations to prevent surface disturbance.</p>	<p>The Preferred Alternative would result in negligible adverse and moderate beneficial impacts to the Susan River area. 2,495 acres would be designated as the Susan River ACEC, similar to Alternative 2. However, no WSR designation would be recommended under this alternative.</p> <p>ACEC designation would direct management efforts towards protecting the free-flowing character of the entire eight-mile segment, along with other relevant and important ACEC criteria.</p>

<b>Susan River ACEC (continued)</b>				
<p>Recreation activities would continue to be non-motorized. The scenic quality of the eligible area would be protected under VRM Class II requirements.</p> <p>The area would remain 'Open' to leasable and locatable mineral development, and 'Closed' to saleable minerals. This area has low mineral potential and impacts from mineral development are not expected to be significant.</p> <p>Rights-of-way would not be issued within the Susan River Canyon—except to benefit the Bizz Johnson Trail. However, “grandfathered” right-of-ways acquired with canyon lands would continue to be used.</p> <p>Timber harvesting would be limited to actions which improve forest health and reduce the potential for catastrophic wildfire.</p> <p>A full suppression AMR would be used to control wildfires due to the proximity to Susanville and homes on the north rim of the Susan River Canyon.</p>	<p>WSR designation would preserve the free-flowing character of this river segment and preclude construction of a dam or water diversion, adding additional protection to the area’s relevant and important ACEC criteria.</p> <p>The area would be 'Closed' to locatable and saleable minerals to protect the Bizz Johnson Trail SRMA. Mineral leasing would require NSO stipulations to prevent surface disturbance (diagonal drilling would be permitted beyond the canyon rim).</p>	<p>With ACEC designation, the area would be 'Closed' to leasable minerals, and withdrawn from mineral entry to prevent damage to the relevant and important ACEC values of the Susan River and adjacent canyonlands. However, it would remain open for recreational mining (hand panning).</p> <p>Impacts from livestock grazing, timber harvesting, recreation, rights-of-way, and fire management would be the same as under the No action Alternative.</p>	<p>With ACEC designation, the area would be 'Closed' to locatable and saleable mineral development to reduce impacts to the relevant and important ACEC values of the Susan River and adjacent canyonlands. However, it would remain open for recreational mining (hand panning) and for mineral leasing, with NSO stipulations to prevent surface disturbance (diagonal drilling would be permitted beyond the canyon rim).</p> <p>Impacts from livestock grazing, timber harvesting, recreation, rights-of-way, and fire management would be the same as under the No action Alternative.</p>	

<b>Lower Smoke Creek ACEC</b>				
<p>The No Action Alternative would result in negligible adverse and moderate beneficial impacts to the Lower Smoke Creek area. The area would not be designated as an ACEC and would continue to be managed according to the Wilderness IMP because most of the area falls within the Dry Valley Rim WSA.</p> <p>Impacts from livestock grazing and wild horses would be negligible to minor. Livestock are kept out of the creek in most areas by fencing. When livestock are permitted alongside the creek, guidelines for land health will be rigidly enforced, in order to ensure the continued recovery of riparian areas. Wild horses do not significantly affect Lower Smoke Creek because they are excluded by fencing and natural barriers.</p> <p>Adverse impacts to scenic quality would be negligible as VRM Class I criteria would apply within the Dry Valley Rim WSA.</p>	<p>Alternative 1 would result in negligible adverse and major beneficial impacts to the Lower Smoke Creek area. An ACEC would not be designated, and impacts from land uses would be similar to the No Action Alternative.</p> <p>Three miles of Lower Smoke Creek are recommended as suitable for WSR status (with a 'recreational' designation). WSR designation would preserve the free-flowing character of this creek segment and preclude construction of a dam or water diversion, adding additional protection to the area's relevant and important ACEC criteria.</p> <p>Impacts from livestock, wild horses, mineral development, and OHV use are the same as described under No Action.</p> <p>Benefits would result from VRM Class I and II designation, acquisition of adjacent parcels, and improved riparian function, as described under No Action.</p>	<p>Alternative 2 would result in negligible adverse and major beneficial impacts to the Lower Smoke Creek area. 894 acres would be designated as the Lower Smoke Creek ACEC, adjacent to three miles of the creek.</p> <p>WSR designation is also recommended for the same three-mile stretch under Alternative 2. WSR designation would preserve the free-flowing character of this river segment and preclude construction of a dam or water diversion, adding additional protection to the area's relevant and important ACEC criteria.</p> <p>OHVs would be 'Limited to Designated Routes' (primarily short pull-offs from the Smoke Creek Road used for parking or camping. This would limit adverse impacts to areas of established use, and prevent proliferation of new routes.</p>	<p>Same as No Action Alternative, except that no benefits would result from proposed acquisition of additional segments of Lower Smoke Creek, as this would not be a priority.</p>	<p>The Preferred Alternative would result in negligible adverse and moderate beneficial impacts to the Lower Smoke Creek area. 894 acres would be designated as the Lower Smoke Creek ACEC, similar to Alternative 2. However, no WSR designation would be recommended under this alternative.</p> <p>ACEC designation would direct management efforts towards protecting the free-flowing character of the entire three-mile segment, along with other relevant and important ACEC criteria.</p> <p>OHVs would be 'Limited to Designated Routes' (primarily short pull-offs from the Smoke Creek Road used for parking or camping. This would limit adverse impacts to areas of established use, and prevent proliferation of new routes.</p>

Lower Smoke Creek ACEC (continued)				
<p>VRM Class II criteria would apply for the rest of the area. If the Dry Valley Rim WSA is denied wilderness status, the area would be managed under VRM Class II criteria.</p> <p>Moderate benefits would result from continued improvement of the riparian area as a result of a guaranteed minimum flow from a BLM water right.</p> <p>Minor to moderate benefits would result from proposed acquisition (from willing sellers) of additional segments of Lower Smoke Creek. These actions would aid riparian recovery, provide additional public access, and protect sites associated with the Nobles Emigrant Trail. Impacts from OHV use are negligible, as the WSA is 'Limited to Existing Routes'. Negligible adverse impacts would result from mineral development, as the WSA is 'Closed' to leasable and saleable minerals, and locatable mineral development would be restricted.</p>		<p>Negligible adverse impacts would result from energy and mineral development, as the WSA is 'Closed' to leasable and saleable minerals, and locatable mineral development would be restricted to actions not requiring reclamation. However, if WSA status is removed, the ACEC would be withdrawn from locatable minerals, 'Closed' to saleable minerals, and fall under NSO requirements for leasables.</p> <p>Impacts from livestock grazing and wild horse use would be negligible, as described under No Action.</p> <p>Minor to moderate benefits would result from VRM Class I and II designation, acquisition of adjacent parcels, and riparian improvements, as described under the No Action Alternative.</p>		<p>With ACEC designation, the area would be 'Closed' to locatable and saleable mineral development to reduce impacts to the relevant and important ACEC values of the area. However, it would remain 'Open' for recreational mining (hand panning) and for mineral leasing, with NSO stipulations to prevent surface disturbance (diagonal drilling would be permitted beyond the canyon rim).</p> <p>Impacts from livestock grazing and wild horse use would be negligible to minor, as described under No Action.</p> <p>Minor to moderate benefits would result from VRM Class I and II designation, acquisition of adjacent parcels, and riparian improvements, as described under the No Action Alternative.</p>

<b>Willow Creek ACEC</b>				
<p>The No Action Alternative would result in negligible adverse and moderate beneficial impacts to the Willow Creek area. The area would not be designated as an ACEC and would continue to be managed according to the Wilderness IMP because most of the area falls within the Tunnison WSA.</p> <p>Impacts from livestock grazing and wild horses would be negligible to minor, as livestock would be excluded from riparian areas. Livestock will continue to have access to water by water-gap fencing, but these areas would be carefully monitored.</p> <p>Timber harvesting and wood cutting would not be permitted except under conditions that would preserve wilderness values, and improve the natural setting.</p> <p>Impacts from OHV use are negligible, as the WSA area is designated as 'Limited to Existing Routes'.</p>	<p>Alternative 1 would result in negligible adverse and major beneficial impacts to the Willow Creek area. An ACEC would not be designated under Alternative 1, and impacts from land uses would be similar to the No Action Alternative.</p> <p>4.75 miles of Willow Creek are recommended as suitable for WSR status (with a 'wild' designation) under this alternative. WSR designation would preserve the free-flowing character of this creek segment and preclude construction of a dam or water diversion, adding additional protection to the area's relevant and important ACEC criteria.</p> <p>Impacts from livestock, wild horses, mineral development, timber harvesting, fire management, and OHV use are the same as described under No Action.</p>	<p>Alternative 2 would result in negligible adverse and major beneficial impacts to the Willow Creek area. 2,130 acres would be designated as the Willow Creek ACEC, adjacent to 8 miles of the creek.</p> <p>WSR designation is also recommended for the same 8-mile stretch under Alternative 2. WSR designation would preserve the free-flowing character of this river segment and preclude construction of a dam or water diversion, adding additional protection to the area's relevant and important ACEC criteria.</p> <p>OHVs would be 'Limited to Designated Routes'. This would limit adverse impacts to areas of established use, and prevent proliferation of new routes.</p> <p>Negligible adverse impacts would result from energy and mineral development, as the WSA is 'Closed' to leasable and saleable minerals.</p>	<p>Same as No Action Alternative, except that no benefits would result from proposed acquisition of additional segments of Willow Creek, as this would not be a priority.</p>	<p>The Preferred Alternative would result in negligible adverse and moderate beneficial impacts to the Willow Creek area. 2,130 acres would be designated as the Willow Creek ACEC, similar to Alternative 2. However, no WSR designation would be recommended under this alternative.</p> <p>ACEC designation would direct management efforts towards protecting the free-flowing character of the entire 8-mile segment, along with other relevant and important ACEC criteria.</p> <p>OHVs would be 'Limited to Designated Routes'. This would limit adverse impacts to areas of established use, and prevent proliferation of new routes.</p> <p>With ACEC designation, the area would be 'Closed' to saleable mineral development and recommended for withdrawal from locatable minerals to reduce impacts to the relevant and important ACEC values of the area.</p>

**Willow Creek ACEC (continued)**

<p>Full suppression would be mandatory for wildfires; therefore, a natural fire régime could not be reestablished and fuels must be reduced by other means.</p> <p>Wilderness characteristics will be protected under the Wilderness IMP. Adverse impacts to scenic quality would be negligible as VRM Class I criteria would apply within the Tunnison WSA and VRM Class II criteria would apply for the rest of the area. If WSA status is denied, the entire area would be managed under VRM Class II.</p> <p>Minor to moderate benefits would result from proposed acquisition of additional segments of Willow Creek in order to enlarge public ownership of the riparian area and aid its recovery, and provide additional public access.</p> <p>Negligible adverse impacts would result from energy and mineral development, as the WSA is 'Closed' to leasable and saleable minerals, and locatable mineral development would be restricted.</p>	<p>Benefits would result from VRM Class I and II designation, and acquisition of adjacent parcels, as described under No Action.</p>	<p>Locatable mineral development would be restricted to actions not requiring reclamation. However, if WSA status is removed the area would be 'Closed' to saleable mineral development, recommended for withdrawal from locatable minerals, and fall under NSO requirements for leasables in order to reduce impacts to the relevant and important ACEC values of the area.</p> <p>Impacts from livestock, wild horses, mineral development, timber harvesting, fire management, and OHV use are the same as described under No Action.</p> <p>Minor to moderate benefits would result from VRM Class I and II designation, and acquisition of adjacent parcels as described under the No Action Alternative.</p>		<p>However, it would remain 'Open' for recreational mining (hand panning) and for mineral leasing, with NSO stipulations to prevent surface disturbance (diagonal drilling would be permitted beyond the canyon rim).</p> <p>Impacts from livestock, wild horses, mineral development, timber harvesting, fire management, and OHV use are the same as described under No Action.</p> <p>Minor to moderate benefits would result from VRM Class I and II designation, and acquisition of adjacent parcels as described under the No Action Alternative.</p>
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<b>Historic Trails</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
Minor to moderate benefits would result from acquisition of portions of historic trails, securing public access, and establishing protection. Portions of the Nobles Emigrant Trail would be protected under VRM Class II.	Minor adverse effects would result as no additional trail portions would be acquired. Portions of the Nobles Emigrant Trail would gain some protection under VRM Class II.	Same as the Preferred Alternative.	Same as Alternative 1.	This alternative provides the greatest benefit to the protection of historic trails. Minor to moderate benefits would result from acquisition of portions of historic trails, including railroad grades, securing public access, and establishing protection. All of the Nobles Emigrant Trail would gain some protection under VRM Class II.
<b>Wild and Scenic Rivers</b>				
<b>Lower Smoke Creek</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
No designation would occur on the 3.2 mile eligible segment of Lower Smoke Creek, and the river would remain vulnerable to major adverse, long-term, permanent impacts. The waterway would remain available for future construction of dams. A dam would permanently eliminate unique, high scenic quality, free-flowing values, and severely degrade rare, irreplaceable natural and cultural resources.	This alternative would result in major beneficial long term effects as the waterway would remain free flowing in perpetuity. Lower Smoke Creek would be designated as a Wild and Scenic River along 3.2 miles and classified as 'recreational'. Rare, irreplaceable natural and cultural resources would remain intact. Designation would prevent the possibility of dam construction in the future.	Same as Alternative 1.	Same as No Action Alternative.	The Preferred Alternative would result in both moderate beneficial impacts and possible major adverse impacts to the outstandingly remarkable values of Lower Smoke Creek (as identified through the WSR Act study process). Lower Smoke Creek would not be recommended suitable for WSR designation, but would be managed under provisions of the Lower Smoke Creek ACEC (894 acres), and Dry Valley Rim WSA.

<b>Lower Smoke Creek (continued)</b>				
<p>Portions of eligible sections would continue to receive protection under the management of Dry Valley Rim WSA, the NHPA, and actions supporting achievement of land health standards.</p>				<p>Additional protections would be available through the NHPA and actions supporting achievement of land health standards. (See Impacts Summary Table for Lower Smoke Creek ACEC.)</p> <p>This alternative could have major adverse impacts on the outstandingly remarkable values of Lower Smoke Creek if a dam were built, flooding a portion of the free flowing segment.</p>
<b>Upper Smoke Creek</b>				
<p>No designation would occur on the 10.6 mile eligible segment of Upper Smoke Creek. Same impacts and limited protection as Lower Smoke Creek, detailed above. Twin Peaks is the applicable WSA.</p>	<p>This alternative would result in major beneficial long term effects as the waterway would remain free flowing in perpetuity. Upper Smoke Creek (10.6 miles) would be designated as a WSR and classified as 'wild'. Rare, irreplaceable natural and cultural resources would remain intact. Designation would prevent the possibility of dam construction in the future.</p>	<p>Same as Alternative 1.</p>	<p>Same as No Action Alternative.</p>	<p>Same as Alternative 1.</p>

<b>Susan River</b>				
<p>No WSR designation would occur on the 6 - 8 mile eligible segment of the Susan River. This alternative could have major adverse impacts on the outstandingly remarkable values of the Susan River if a dam were built on the river flooding a portion of the free-flowing segment of the Susan River behind the dam.</p> <p>A dam would permanently eliminate unique, high scenic qualities, free-flowing values, and would severely degrade rare, irreplaceable natural and cultural resources. Portions of eligible sections would continue to receive limited protection under the provisions of the Bizz Johnson Trail SRMA, the NHPA, and actions supporting achievement of land health standards.</p>	<p>This alternative offers less protection than Alternative 2, but substantially more benefit than No Action, Alternative 3, and the Preferred Alternative.</p> <p>Six out of eight eligible miles would be designated as a WSR, and classified as 'recreational', which would ensure that this river segment would remain free flowing in perpetuity.</p> <p>This segment of the river would be protected from any future dam construction. The remaining two miles of river above the free flowing segment would remain available for future dam construction.</p>	<p>This alternative would result in the highest beneficial long term effects as all eight eligible miles of waterway would be designated and classified as WSR 'recreational'. The waterway would remain free flowing in perpetuity.</p> <p>Rare, irreplaceable natural and cultural resources would remain intact. Designation would prevent the possibility of dam construction in the future.</p>	<p>Same as No Action Alternative.</p>	<p>The Preferred Alternative would result in both moderate beneficial impacts and possible major adverse impacts to the outstandingly remarkable values of the Susan River (as identified through the Wild and Scenic Riever Act study process). The Susan River would not be recommended suitable for WSR designation, but would be managed under provisions of the Susan River ACEC, and the BLM Bizz Johnson Trail Management Plan.</p> <p>See Impacts Summary Table for Susan River ACEC.</p> <p>This alternative could have major adverse impacts on the outstandingly remarkable values of the Susan River if a dam were built on the river flooding a portion of the free-flowing segment of the Susan River behind the dam.</p>

Willow Creek				
<p>No designation would occur on the 4.75- to 8-mile eligible segment of Willow Creek, and the river would remain vulnerable to major adverse, long term, permanent impacts. The waterway would remain available for future construction of dams. A dam would permanently eliminate unique, high scenic quality, free-flowing values, and severely degrade rare, irreplaceable natural and cultural resources.</p> <p>Portions of eligible segments would continue to receive protection under the management of Tunnison WSA, the NHPA and actions supporting achievement of land health standards.</p>	<p>This alternative offers less protection than Alternative 2, but substantially more benefit than No Action, Alternative 3, and the Preferred Alternative. 4.75 out of 8 total eligible miles would be designated with the classification of wild. This section would be protected from inundation from any future dam construction. The remaining 3.2 miles of Willow Creek canyon would not be protected and would be flooded by a reservoir if a dam is constructed.</p>	<p>This would result in the highest beneficial long term effects as all 8 miles of eligible waterway would be designated and classified as wild. It would remain free flowing in perpetuity.</p> <p>Rare, irreplaceable natural and cultural resources would remain intact. Designation would prevent the possibility of dam construction in the future.</p>	<p>Same as No Action Alternative.</p>	<p>The Preferred Alternative would result in both moderate beneficial impacts and possible major adverse impacts to the outstandingly remarkable values of Willow Creek (as identified through the Wild and Scenic River Act study process). Willow Creek would not be recommended suitable for WSR designation, but would be managed under provisions of the Willow Creek ACEC, (2,130 acres), and Tunnison WSA. (See Impacts Summary Table for Willow Creek ACEC.)</p> <p>Additional protections would be available through the NHPA and actions supporting achievement of land health standards. This alternative could have major adverse impacts on the outstandingly remarkable values of Willow Creek if a dam were built on the river flooding a portion of the free-flowing segment.</p>

Wilderness Study Areas				
No Action Alternative	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
<p>Under the No Action Alternative all resource actions would be guided by the Wilderness IMP, which ensures the preservation of wilderness characteristics that each WSA contains.</p> <p>Negligible adverse impacts are anticipated under this alternative. OHV use in all WSAs is 'Limited to Existing Routes'. No additional route closures would be implemented, and no new non-motorized trails would be constructed.</p> <p>Acquisition of land parcels within and adjacent to wilderness study areas would be limited to four WSAs, resulting in minor benefits.</p>	<p>Negligible adverse impacts are anticipated under this alternative, similar to No Action. Minor benefits would result in that acquiring lands within all WSAs would be prioritized. These lands would then be managed according to the Wilderness IMP, benefiting wilderness characteristics of the area.</p> <p>Fuel reduction treatments would occur on the 1,734 forested acres of the Tunnison WSA to improve vegetation resources and reduce fire hazards.</p>	<p>Negligible adverse impacts are anticipated under this alternative. Moderate to major benefits would be realized through the designation of ACECs within four WSAs which would result in enhanced protection of the wilderness values within.</p> <p>Additional benefits would result from the closure of 45 miles of routes within the WSAs. ROS 'Primitive' areas would be established within all WSAs. Closure would eliminate adverse effects to visual resources from roads, and the land would return to a more natural ecological condition as the native vegetation recovers.</p> <p>Acquiring lands within and adjacent to WSAs would be prioritized, benefiting wilderness characteristics of the area.</p> <p>OHV use within all WSAs would be 'Limited to Designated Routes', reducing damage to resources from proliferation of new routes within the WSAs.</p>	<p>Impacts from Alternative 3 are similar to the No Action Alternative, except that less benefits would be realized in that no acquisition of land parcels within and adjacent to wilderness study areas would be prioritized.</p>	<p>Same as Alternative 2, except that only Upper Smoke Creek would be recommended as suitable for Wild and Scenic River designation, within the Twin Peaks WSA.</p>

<b>Wilderness Study Areas (continued)</b>				
		<p>Fuel reduction treatments would occur on the 1,734 forested acres of the Tunnison WSA to improve vegetation resources and reduce fire hazards.</p> <p>Willow Creek, Upper Smoke Creek, and Lower Smoke Creek would be recommended as suitable for WSR designation, and these actions would better protect Tunnison, Twin Peaks, and Dry Valley Rim WSAs, from water impoundments along these streams.</p>		
<b>Travel Management</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>The No Action Alternative would result in negligible to minor adverse effects and moderate beneficial impacts to travel management and OHV use. All routes would be 'Open' to motorized travel, and 57% of the field office area would be 'Open' to cross-country travel.</p> <p>WSAs and the Eagle Lake Basin would be 'Limited to Existing Routes'.</p>	<p>Motorized travel in 97% of the field office area would be limited to established travel routes. 419 acres would be 'Open' to cross-country travel, and 2% of the field office would be 'Closed' to all motor vehicle use. Restricting OHVs to designated routes would result in beneficial effects by protecting the natural environment, enhancing existing non-motorized recreational experiences, and reducing use conflicts.</p>	<p>Alternative 2 would result in moderate to major adverse effects and minor beneficial impacts to travel. Motor vehicle use would be limited to established travel routes. No acres would be designated as 'Open' or 'Limited to Existing Routes'. About 70% of the field office area would be 'Limited to Designated Routes'. About 29% would be 'Closed' to motorized vehicle use, and 35 miles would be seasonally 'Closed'.</p>	<p>Impacts from Alternative 3 on motorized travel management are the same as the No Action Alternative. Impacts to non-motorized travel are similar to Alternative 2, except a lower amount of new trails, 18 miles, would be constructed.</p>	<p>The Preferred Alternative would result in moderate adverse impacts and moderate to major beneficial impacts to travel management. 419 acres would be designated as 'Open' to motorized travel, and 72% of the field office area would be 'Limited to Designated Routes'; 24% would be 'Closed' to motorized vehicle use, and all of the field office area would be designated.</p>

**Travel Management (continued)**

<p>Less than 1% of the field office area would be 'Closed' to motorized use, and 1.5% of the field office area would remain undesignated.</p> <p>Sixteen miles of non-motorized trails would be maintained and 80.5 miles of new non-motorized trails would be built, resulting in a minor to moderate benefits. New trails create additional non-motorized access for people who prefer to travel on trails rather than cross-country.</p> <p>Developing the Modoc Line as a trail would result in moderate to major benefits as it would create non-motorized travel access between significant population centers in Lassen and Modoc Counties.</p>	<p>15 miles of new routes would be built for motorized use. This would have a minor benefit to motorized travel.</p> <p>A total of 264 miles of new non-motorized trails would be built and maintained. Building new trails would have a minor to major benefit, depending on the trail location.</p> <p>Impacts from developing the Modoc Line are the same as described under No Action.</p>	<p>45 miles of roads and trails would be permanently 'Closed' within the ROS 'Primitive' areas designated under Alternative 2. This would have a moderately adverse effect on motorized travel. The closures proposed are dead-end roads extending into WSAs.</p> <p>Only 22 miles of new non-motorized trails would be built or maintained, resulting in a minor to moderate benefits, depending on the trail location.</p>		<p>The Preferred Alternative would seasonally close 35 miles of roads, and permanently close 45 miles within the ROS 'Primitive' areas. The closures proposed are dead-end roads extending into WSAs.</p> <p>Restricting OHVs to designated routes would result in beneficial effects by protecting the natural environment, enhancing existing non-motorized recreational experiences, and reducing use conflicts.</p> <p>About 15 of miles of new routes would be built, resulting in minor benefits to motorized travel.</p> <p>A total of 264 miles of new non-motorized trails would be built, resulting in a minor to major benefits, depending on the trail location. Developing the Modoc Line as a trail would result in moderate to major benefits as it would create non-motorized travel access between significant population centers in Lassen and Modoc Counties.</p>
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<b>Vegetation</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>This alternative would result in minor to moderate adverse impacts to vegetation from disturbances caused by livestock grazing, wild horse grazing, unrestricted cross-county OHV use, and potential energy and mineral extraction.</p> <p>The No Action Alternative would result in minor to moderate short term and long term beneficial effects on riparian and wetland communities that have been classified 'At Risk'. Management actions that would benefit riparian and wetland communities include maintaining current fencing, assessing riparian areas, and managing wild horses at the low end of the AML and considering fencing in areas of year-round use.</p> <p>The Pine Dunes area would continue to be managed as a RNA, and would not be expanded.</p>	<p>Moderate to major adverse impacts would occur to vegetation from disturbances caused by increased livestock grazing, wild horse grazing, OHV activities, and potential energy and mineral extraction.</p> <p>Livestock grazing would be allowed on additional acres, and rest periods reduced in some allotments. Although Alternative 1 includes managing wild horses at the lowest AML and adjusting as needed in areas of year-round use, riparian communities would still sustain effects from livestock use (especially during summer months when livestock would gather along stream and riparian corridors). Potential effects include a direct loss of riparian and wetland vegetation from potential overgrazing (particularly in areas of year-round use) and potential indirect effects on vegetation from stream degradation.</p>	<p>This alternative would result in the least adverse impacts and the most benefits to vegetation. Minor adverse effects would occur from disturbances caused by OHV use, potential energy and mineral extraction, and wild horse grazing.</p> <p>Vegetation would be allowed to recover from livestock grazing impacts for two out of every three years. Generally, resting of allotments is considered to result in beneficial impacts on native vegetation communities by accelerating progress toward meeting land health standards and proper functioning condition.</p> <p>The largest amount of fuels and juniper treatment is proposed using prescribed fire. A large amount of wildland fire use and appropriate management response for fire suppression is proposed under this alternative.</p>	<p>Similar to Alternative 1, Alternative 3 emphasizes utilization of all resources to the maximum extent possible while still meeting land health standards. Alternative 1 is expected to result in moderate adverse impacts to vegetation. Livestock grazing would be allowed on additional acres, rest periods reduced in some allotments, and no exclusions would protect sensitive resources.</p> <p>Alternative 1 would also result in minor beneficial impacts to vegetation communities from the reduction of hazardous fuels on 5,000 acres per year. Designating the Pine Dunes and Aspen Groves ACECs would assure that a management plan is implemented to protect vegetation in these areas. OHV travel would be limited to driving on routes, which would reduce the impacts to vegetation from cross-country use.</p>	<p>The Preferred Alternative is expected to have minor to moderate adverse impacts to vegetation, and moderate beneficial effects. Similar to Alternative 2, this is the second least adverse and most beneficial alternative for managing the vegetation resource.</p> <p>Restoration actions on approximately 167,000 to 225,000 acres of 'At Risk' and 'Unhealthy' plant communities would result in beneficial impacts by restoring plant species composition, structure and function, and plant vigor.</p> <p>Minor adverse impacts to vegetation would result from disturbances caused by livestock grazing, wild horse grazing, and potential energy and mineral extraction.</p> <p>The Preferred Alternative requires rest or deferment from livestock grazing on 80 to 90% of all grazed lands annually.</p>

Vegetation (continued)				
	<p>Alternative 1 would also result in minor beneficial impacts to vegetation communities from the reduction of hazardous fuels on 5,000 acres per year. Designating the Pine Dunes (160 acres) and Aspen Groves (2745 acres) ACECs would assure that a management plan is implemented to protect vegetation in these areas.</p> <p>OHV travel would be limited to driving on routes, which would reduce the impacts to vegetation from cross-country use.</p>	<p>Reintroduction of fire to the landscape on a large scale is considered a beneficial effect under this alternative.</p> <p>The Pine Dunes ACEC would be expanded to cover 2,887 acres to protect the unique plant community therein.</p>		<p>Periodic resting of allotments is considered to result in beneficial impacts on vegetation communities by accelerating progress toward meeting land health standards and proper functioning condition.</p> <p>The Preferred Alternative implements actions to maintain riparian/wetland areas currently at PFC, and to improve areas that are currently rated as 'Functioning at Risk, Upward or Static Trend' to PFC. Management actions include maintaining current fencing, constructing new grazing exclosures, assessing and restoring riparian areas, and managing wild horses at the low end of the AML. The results would be that an additional 4% of riparian sites (for a total of 88%), and an additional 2% of wetland sites (for a total of 87%), would be in PFC.</p>

Vegetation (continued)				
				<p>This would result in long-term benefits to riparian/wetland communities by allowing vegetation diversity and structure to redevelop in these systems, thereby improving streambank stability. Increases in levels of water and rates of flow through stream corridors also may benefit associated shrub associations.</p> <p>Hazardous fuels reduction would occur at a rate of 10,000 acres per year. The reintroduction of fire to the landscape on a large scale is considered a major beneficial effect under this alternative.</p> <p>The designation of seven ACECs would benefit vegetation as management plans are implemented to improve vegetation resources. The Pine Dunes ACEC would be expanded to cover 2,887 acres to protect the unique plant community therein. OHV use would be restricted to designated routes, with several closures to protect vegetation and other resources.</p>

<b>Noxious Weeds and Other Invasive Species</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>The No Action Alternative would result in negligible to minor adverse and beneficial effects to the control of noxious weeds.</p> <p>Although many actions under the No Action Alternative would benefit native vegetation, this alternative is largely reactive. The other alternatives would provide a more proactive approach to vegetation management.</p> <p>Full suppression wildland fire management over the entire field office area would directly affect noxious weeds in the short term. The long-term effects of this management action on native vegetation would be adverse, by creating an increase in noxious weeds.</p> <p>Energy and mineral development could result in increased ground disturbance, and subsequent weed infestations, as more lands would be 'Open' to mineral extraction.</p>	<p>Minor to moderate adverse effects would result from substantial increases in ground disturbing practices. Commodity production of resources would be prioritized. More areas would be opened to livestock grazing, resulting in the introduction of noxious weed species into areas that were not previously infested. A total of 264 miles of new trails and 15 miles of new roads would be built, having the highest potential under all the alternatives for introducing noxious weeds into the area.</p> <p>More lands would be closed to energy and mineral development than the No Action Alternative. Wildlife management actions would help control noxious weeds and benefit native vegetation.</p> <p>The ELFO would continue to implement IWM.</p>	<p>Alternative 2 would result in negligible to minor adverse impacts, and minor to moderate beneficial impacts to the control of noxious weeds. This alternative is designed to benefit vegetation communities by allowing livestock grazing only once every three years. While this action would benefit native plant communities, resting annual grasslands from grazing would increase the cover of exotic annuals, increasing the potential for fire and the fire return interval. An increase in fire frequency would harm healthy communities next to those dominated by annual grasslands by converting them to annual grass-dominated communities.</p> <p>Trail construction and the amount of land 'Open' to mineral development are greatly reduced under this alternative, reducing ground disturbances that encourage weed infestations.</p>	<p>Same as Alternative 1, except that livestock grazing effects would be slightly more adverse due to reduction in grazing rest and exclosures. Only 18 miles of non-motorized trails would be constructed, reducing ground disturbance, and the potential for introducing noxious weeds into the area.</p> <p>OHV use and impacts would be the same as No Action.</p>	<p>The Preferred Alternative would result in negligible to minor adverse impacts, and moderate to major long-term beneficial impacts. Under the Preferred Alternative, vegetation resources would continue to be managed to achieve land health standards using site-specific management techniques.</p> <p>Restoration actions on approximately 167,000 to 225,000 acres of 'At Risk' and 'Unhealthy' plant communities would result in additional weed control by restoring plant species composition, structure and function, and plant vigor.</p> <p>Livestock grazing would be managed to improve land health in upland and riparian sites. The ELFO would aim to reduce or eliminate the introduction and spread of noxious weeds using IWM. The management of noxious weeds using an IWM approach has been shown to provide beneficial effects.</p>

Noxious Weeds and other Invasive Species (continued)				
<p>OHV use on 57% of the field office area would be 'Open' to cross-country travel. Results would be damage to vegetation communities by creating direct disturbance to vegetation and soils, and indirect disturbance caused by increased human presence, creating a large potential for introducing or spreading noxious weeds.</p> <p>Benefits to native vegetation are expected to result from IWM and site-specific management measures of various resource programs.</p>	<p>OHV use on 99% of the field office area would be 'Limited to Designated Routes', and several areas 'Closed'. Limits on OHV use would benefit vegetation communities by limiting direct disturbance to vegetation, soil disturbance (thereby decreasing erosion), and indirect disturbance caused by increased human presence, limiting the potential for introducing or spreading noxious weeds.</p>	<p>Fire suppression actions include both WFU and AMR, which would result in a decrease of weeds in the future.</p> <p>OHV use on 99% of the field office area would be 'Limited to Designated Routes', and several areas 'Closed'. Limits on OHV use would benefit vegetation communities by limiting direct disturbance to vegetation, soil disturbance (thereby decreasing erosion), and indirect disturbance caused by increased human presence, limiting the potential for introducing or spreading noxious weeds.</p>		<p>Fire suppression actions include both WFU and AMR, which would result in a decrease of weeds in the future.</p> <p>OHV use on 99% of the field office area would be 'Limited to Designated Routes', and several areas 'Closed'. Limits on OHV use would benefit vegetation communities by limiting direct disturbance to vegetation, soil disturbance (thereby decreasing erosion), and indirect disturbance caused by increased human presence, limiting the potential for introducing or spreading noxious weeds.</p>

<b>Special Status Plants</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>The No Action Alternative would result in negligible adverse effects and moderate benefits to special status plants. All project proposals would be reviewed to determine their impacts on special status plant species. Recommendations would be incorporated when necessary to avoid or minimize impacts.</p>	<p>Same as No Action Alternative.</p>	<p>Alternative 2 would result in negligible adverse effects and moderate benefits to special status plants. By emphasizing overall ecosystem health, this alternative would result in the most benefit for special status plants. Required rest for grazing allotments would accelerate progress toward meeting land health standards and proper functioning condition in some plant communities.</p> <p>Continued monitoring of special status plants would provide indirect benefits. Added knowledge on the status, distribution, and ecology of special status plants would also be useful for guiding future management.</p>	<p>Same as No Action Alternative.</p>	<p>Same as Alternative 2, except livestock grazing would not be rested two out of three years, but would be managed to meet land health standards.</p>

Visual Resource Management				
No Action Alternative	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
<p>The No Action Alternative would result in moderate overall adverse effects, primarily as this alternative contains the most lands designated as VRM Class IV, and from unrestricted OHV use. Under current management, 25% of the field office area is managed as VRM Class IV. Activities that begin to dominate the visual landscape are allowed in these areas. 36% of BLM-administered lands are VRM Class III and also would be affected by activities that cause adverse impacts on visual resources.</p> <p>'Open' OHV use in most of the field office area would have moderate to major long-term adverse effects, resulting from degradation of natural areas through creation of new trails, as well as widening and expansion of existing trails, particularly on highly visible ridgelines and steep slopes.</p>	<p>Alternative 1 would result in moderate adverse affects to scenic quality from increased development and land use. Increased livestock grazing, the expansion of recreation sites and trails, and continued management of lands as VRM Class IV would result in adverse impacts.</p> <p>Effects from VRM Class designations and those from prescribed fire and fuel treatments would be the same as the No Action Alternative, except that more acres of fuels treatments would be applied each year. Fuels treatments would be applied at a rate of 5,000 acres each year, which would result in long term benefits to visual resources by improving native plant communities.</p> <p>Alternative 1 would also result in moderate beneficial impacts to scenic quality, from reduced OHV use, and increased restrictions to energy and minerals development.</p>	<p>Alternative 2 would result in negligible adverse and moderate beneficial impacts to scenic quality. Only 8% of the field office area would be managed as VRM Class IV. 52% would be designated as VRM Class III. Activities in these areas, comprising about 60% of the field office, would adversely affect visual resources; however, the area subject to the highest degree of impacts would be significantly lower than under the No Action Alternative.</p> <p>Energy and minerals management actions under Alternative 2 would close approximately 417,400 acres to leasable minerals, approximately 53,000 acres to locatable minerals, and approximately 470,000 acres to saleable minerals. The closures would result in a beneficial effect on visual resources by substantially increasing the area protected from surface-disturbing activities.</p>	<p>Alternative 3 would result in moderate adverse effects, and is similar to the No Action Alternative, with the following exceptions: The Pine Dunes and the Aspen Groves ACECs would be designated. This would result in minor benefits to the visual resources of these areas by maintaining the natural character of the landscape and the scenic values that led to their designation.</p> <p>Fuels treatments would be applied at a rate of 5,000 acres each year, which would result in long-term benefits to visual resources by improving native plant communities.</p>	<p>The Preferred Alternative would result in minor adverse and moderate to major beneficial impacts to scenic quality, and is similar to Alternative 2.</p> <p>7% of the field office area would be assigned VRM Class IV, and Class II would be increased to 50%. This represents the least amount of area where adverse impacts on visual resources would occur.</p> <p>OHV use within most of the field office area would be 'Limited to Designated Routes', reducing visual impacts from cross-country travel.</p> <p>Continued livestock grazing under this alternative would result in some adverse impacts on riparian areas, soils, and vegetation, creating site-specific visual intrusions. However, major improvements to livestock grazing strategies and land health would be made, resulting in the restoration of native plant communities, and the natural setting.</p>

**Visual Resource Management (continued)**

<p>Prescribed fire and fuel reduction projects would have short-term adverse effects resulting in long-term benefits. Effects would not be significant because the area affected would be limited in size and activities would be planned to meet VRM class objectives.</p> <p>Most areas of the field office, except for WSAs, would remain 'Open' to mineral development. Despite this, potential for large-scale mineral development is generally low. Project planning must meet VRM objectives which would minimize visual impacts.</p> <p>The Pine Dunes area would continue to be managed as a research natural area; no ACECs would be designated.</p>	<p>OHV use in most of the area would be 'Limited to Existing or Designated Routes'. These management activities would be of benefit to visual resources by reducing impacts from cross-country travel.</p> <p>Designation of two ACECs would provide protection to visual resources in these areas. Additional benefits would result from restoration of seedings and potential acquisition of WSA inholdings.</p>	<p>Reduction of livestock grazing to once every three years would result in minor beneficial impacts to visual resources. Native plant communities would improve in vigor, creating a higher quality visual setting. Visual disruptions, such as trampling of vegetation, bare areas, and disturbances to riparian areas would be reduced.</p> <p>OHV use in most of the area would be 'Limited to Designated Routes'. 45 miles of routes would be permanently 'Closed'. This would benefit visual resources by reducing impacts from cross-country travel, and decreasing the proliferation of new routes.</p> <p>Designating seven ACECs would benefit visual resources by maintaining the natural character of the landscape.</p> <p>Fuels treatments would be applied at a rate of 10,000 acres each year, which would result in long term benefits to visual resources by improving native plant communities.</p>		<p>Impacts from energy and minerals development are similar to those listed under Alternative 2 for leasable minerals. The closures would result in a beneficial effect on visual resources by substantially increasing the area protected from surface-disturbing activities. Much less area would be 'Closed' to saleable minerals (389,000 acres) and withdrawn from locatable minerals (8,406 acres), however protection would be provided by site-specific planning to adhere to VRM class objectives.</p> <p>Benefits would also result from restrictions to OHV use, designation of seven ACECs, and fuels reduction treatments, as described under Alternative 2.</p>
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Water Resources				
No Action Alternative	Alternative 1	Alternative 2	Alternative 3	Preferred Alternative
<p>The No Action Alternative would result in water quality trends continuing along their current trajectory and are not anticipated to result in either adverse or beneficial effects relative to baseline conditions. Impacts to water resources would be temporary and limited to specific local areas.</p> <p>The greatest potential to adversely affect water resources would be actions from fire and fuels management, recreation, and livestock and wild horse grazing.</p> <p>Small areas of fuels treatment (&lt; 600 acres) and large areas of full suppression (1,022,767 acres) would result in minor short-term adverse effects, but substantial long-term adverse effects from catastrophic fires and an unnatural fire regime. Adverse effects of catastrophic fires are widespread increases in erosion rates and sedimentation rates within water bodies.</p>	<p>Alternative 1 would foster the greatest degree of active use and development, resulting in minor to moderate adverse effects overall on water resources. Many of these uses would slow progress toward achieving land health standards.</p> <p>Livestock grazing would be increased, and required rest periods would be reduced. No exclosures would be constructed to protect sensitive riparian areas, or other water bodies.</p> <p>Increased recreational use would result from the designation of two new SRMAs, and 264 miles of new non-motorized routes. Effects would increase near water sources from human use, including trampling, erosion, and release of human-related contaminants, such as bacteria and trash. However, management attention would focus on the natural resources of that area and this would mitigate impacts.</p>	<p>Alternative 2 would result in a major beneficial effect on water resources overall, resulting from management actions that would specifically protect water resources. Land uses would be allowed only where they would result in unimpeded progress toward standards. In streams with water-quality-limited segments, uses would be allowed only if they promote recovery.</p> <p>In some cases, however, the focus on natural processes would preclude the use of needed management action, resulting in the unintended consequence of impairing progress of water bodies toward meeting land health standards.</p> <p>Allowing grazing in only one of three years would greatly benefit water resources through increased vegetative cover, improved channel condition, improved hydrologic function, and reduced water quality contaminants originating from livestock.</p>	<p>Alternative 3 would result in moderate adverse impacts to water resources, and is similar to Alternative 1, except for the following actions.</p> <p>OHV use is likely to result in continued degradation of water resources due to compaction and erosion associated with OHV travel—both on roads and trails and in cross-country areas.</p> <p>Livestock grazing would be allowed without required rest periods and without exclosures to protect sensitive resources. Grazing actions would be difficult to mitigate without some rest periods required, and intense management actions—increased herding, fencing, vegetation treatment, and water development—would be required to maintain land health standards.</p>	<p>The Preferred Alternative provides many measures to improve land health, similar to Alternative 2, and would result in minor adverse effects and moderate to major beneficial impacts to water resources.</p> <p>Additional focus on a variety of management practices to achieve proper functioning condition would result in increased progress toward meeting land health standards.</p> <p>Exclosures around springs, riparian areas, and contributing uplands would result in additional beneficial effects. Assertion of instream flow and riparian rights would result in benefits to water resources overall.</p> <p>A larger variety of management practices would be used to manage fisheries, including removal of cattle from areas where they are affecting water quality and stream channel condition.</p>

**Water Resources (continued)**

<p>20,160 acres would be unavailable to livestock grazing, which would result in beneficial impacts on water quality in closed areas and downstream by reducing trampling, erosion, compaction, and release of other water quality contaminants from livestock. Fence construction, and rest or deferment would result in similar beneficial effects.</p> <p>Increased recreational use at existing and new sites would increase the effects from human use, including trampling, erosion, and release of human-related contaminants, such as bacteria and trash.</p> <p>This alternative allows the greatest use for energy and mineral development. The potential for large-scale mineral development is generally low; however, resulting in minor impacts.</p> <p>Wild horse use would be managed to meet AMLs, which would reduce impacts to water sources over the long term.</p>	<p>Minor benefits would also result from this alternative. OHV use would largely be limited to existing roads and trails, which would reduce the degrading of water resources where OHVs engaged in cross-country travel. Banning camping within 200 feet of water sources, sensitive plant locations, and cultural sites would benefit water resources in those areas by reducing trampling and related erosion and soil compaction.</p> <p>Fuels treatment plans would be similar to—but cover larger areas than—the No Action Alternative and are anticipated to result in generally beneficial effects by reducing the potential for catastrophic fires.</p> <p>Impacts from energy and mineral development, and wild horse use are similar to No Action.</p>	<p>Wild horse use would be managed to meet appropriate management levels, which would reduce impacts to water sources over the long term.</p> <p>Significant restrictions on OHV use and closure of routes would reduce potential impacts on water resources from cross-country travel, and route proliferation. Restrictions on mineral development would also reduce potential impacts on water quality.</p> <p>Beneficial effects would result from implementing 100-foot buffers zones and restricting new construction to locations with the least impact on water resources. Fire and fuels actions would result in much greater beneficial effects than those in No Action and Alternative 1, due to increased use of appropriate management response, prescribed fire, and fuels treatments. These actions would reduce the potential for catastrophic fires, which would degrade water resources.</p>		<p>This approach is expected to result in substantial short-term and long-term beneficial effects on water resources in these areas.</p> <p>Major improvements to livestock grazing strategies and land health would be made, resulting in the restoration of riparian areas and springs.</p> <p>Significant restrictions on OHV use and closure of routes would reduce potential impacts on water resources from cross-country travel, and route proliferation.</p> <p>Beneficial effects would also result from implementing &gt;50-foot buffers zones and restricting new construction to locations with the least impact on water resources.</p>
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<b>Wild Horses and Burros</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>The No Action Alternative would result in negligible to minor adverse effects on wild horses. The No Action Alternative places few restrictions on wild horses and burros. HMAs would continue to be managed with regular gathers to maintain herd numbers within appropriate management levels and, when necessary, for rehabilitation after wildfire.</p> <p>Livestock grazing would continue with intensive management on portions of some allotments, including building new fences and water developments. Livestock and horses would continue to compete for forage and water. Where land health standards are not being met, wild horse and burro management would address issues when recognized.</p> <p>Recreation activities would result in limited human-horse encounters in remote areas.</p>	<p>Alternative 1 would result in moderate adverse effects and minor beneficial impacts to wild horses. Adverse impacts would result from expanded recreation opportunities, and increased livestock grazing. Livestock grazing would increase above current use levels, having the potential to moderately decrease the amount of forage available for wild horses and burros. Building 60 to 90 miles of new fences would impede the ability of wild horses to move unimpaired throughout their areas.</p> <p>Prescribed fire would have short term adverse impacts, most likely affecting Fort Sage or New Ravendale HMAs because of their relatively small size. If large treatment areas (1,500-2,500 acres) overlap either of these HMAs, available forage and movement within the HMA would be limited until vegetation objectives are achieved.</p>	<p>Alternative 2 would result in moderate to major adverse effects, and moderate beneficial impacts to wild horses.</p> <p>BLM would manage wild horses and burros to best improve overall ecosystem health. Eliminating the New Ravendale HMA would remove at most 25 head of wild horses from management, but this HMA has the potential to promote an understanding of wild horse management to the public because of the closeness to a well-traveled state highway. Alternative 2 would not promote BLM's wild horse and burro program, and in the long term, result in less public understanding and support of wild horse and burro management.</p> <p>Increased emphasis on restoring ecosystems would both adversely effect and benefit wild horses.</p>	<p>Alternative 3 is expected to result in minor to moderate adverse effects and minor benefits to wild horses. Impacts from wild horse management would be the same as No Action. Impacts from fuels treatments, increased recreation activities, and livestock grazing would be similar to those listed under Alternative 1. Competition from livestock would increase, and fencing would restrict movement resulting in moderate adverse impacts.</p>	<p>The Preferred Alternative would result in minor adverse effects and moderate beneficial impacts to wild horses. BLM would maintain three HMAs at appropriate management levels, emphasizing the historical traits of each herd. Emphasis would be given to promoting public education and interpretation of the wild horse and burro program. Facilities would be developed for the adoption program and for public viewing of wild horses and burros in their natural habitat.</p> <p>Livestock grazing would continue with intensive management on portions of some allotments, including building of new fences and water developments. Livestock-horse competition for forage and water would continue. Rest and deferment from livestock grazing would improve overall forage conditions, benefiting wild horses and burros.</p>

<b>Wild Horses and Burros (continued)</b>				
<p>Opportunities for encounters in accessible areas would be slightly greater in the Fort Sage SRMA. Current management actions negligibly disturb wild horses, mainly due to the intermittent, dispersed nature of the uses within the SRMA and the ability of the horses to move away from temporary concentrated uses such as special events.</p> <p>The proposed amounts of prescribed fire and vegetation treatments in this alternative are relatively low, and would have greater effects in those HMAs likely to be encroached by juniper.</p> <p>Other minor adverse impacts would continue from fencing requirements associated with vegetation treatments.</p>	<p>Designating the Aspen Groves ACEC would require fencing and restrict movement within herd areas on 2,719 acres of small scattered groves. Because aspen groves often grow in riparian areas, fencing would also limit wild horse access to some water sources.</p> <p>Management practices proposed to improve vegetation condition and productivity, restore unhealthy ecological sites, and treat juniper and unique vegetation associations would improve overall habitat conditions for wild horses and burros.</p> <p>Managing special recreation management areas at Fort Sage and South Dry Valley would cause a minor disturbance to wild horses and burros in those areas. Restricting motorized use to designated routes would keep disturbance negligible by providing areas of limited use where horses and burros would remain mostly undisturbed.</p>	<p>The potential for large acreages to be treated with prescribed fire or other treatments in any one year would moderately disturb wild horses and burros for the short term immediately following treatment. If the same area is treated during later years, or multiple treatments occur in the same vicinity, the impacts would become greater and extended over a longer timeframe.</p> <p>Beneficial impacts would include long-term improvement of wild horse habitat due to reduced livestock grazing and vegetation treatments.</p> <p>Reducing livestock grazing by 1/3<sup>rd</sup> would increase forage and water for wild horses, therefore improving the overall health of the herds.</p> <p>Minor to moderate beneficial impacts would result from increased restrictions on energy and minerals development and OHV travel. Additional benefits would result from development of water sources for wildlife.</p>	<p></p>	<p>Impacts from fuels treatments would be similar to Alternative 2. Over time, the general health of the herds is expected to improve.</p> <p>Developing new SRMAs at Fort Sage and in South Dry Valley would have minor adverse impacts on the wild horses in those areas. Increased use by OHVs, hikers, equestrians, and sightseers would increase human-horse encounters and disturbance in areas previously less used by the public. But restricting motorized use to designated routes would keep impacts negligible by providing areas of limited use where horses and burros would remain mostly undisturbed.</p> <p>Management practices proposed to improve vegetation condition and productivity, restore unhealthy ecological sites, and treat juniper and unique vegetation associations would improve overall habitat conditions for wild horses and burros.</p>

<b>Wildlife and Fisheries</b>				
<b>No Action Alternative</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Preferred Alternative</b>
<p>The No Action Alternative would result in major adverse effects to wildlife habitat from a combination of hazardous fuels buildup, livestock and wild horse grazing, 'Open' cross-country OHV use, and the lack of proactive progressive measures to protect sensitive habitats.</p> <p>The amount of acres treated for vegetation improvements through fuels reduction and other treatments would be relatively low.</p> <p>Moderate adverse impacts to ungulates, sagebrush obligate, and other species would continue, as current livestock grazing acres and management would remain unchanged.</p> <p>Adverse impacts from motorized recreation would be high, as 562,197 acres would be 'Open', and the fewest acres would be 'Closed'. 80.5 miles of new non-motorized routes would be constructed, increasing minor adverse effects from disturbance and habitat modification.</p>	<p>Alternative 1 would result in major adverse effects to wildlife habitat from a combination of livestock and wild horse grazing, and lack of protection of sensitive habitats.</p> <p>This alternative contains the highest number of acres available to grazing, and considers opening presently unallocated lands, which would increase adverse effects to wildlife. Minimal rest or deferment would increase damage to habitat and competition for forage, resulting in increased adverse effects to ungulates, sage-grouse, and other sagebrush obligate species.</p> <p>Vegetation would be managed as a commodity, providing relatively minor beneficial impacts to wildlife. Only areas of priority to mule deer would receive rest from grazing. Juniper would be removed regardless of site, adversely affecting birds and other species.</p>	<p>Alternative 2 would result in minor to moderate adverse effects to wildlife habitat from a combination of wild horse grazing, potential energy development, and recreation activities. This alternative would result in moderate to major beneficial impacts to wildlife, and provides the highest level of protection for sensitive habitats.</p> <p>Livestock grazing in each allotment or pasture would be completely rested for two out of three years. This would provide moderate benefits to ungulates, sage-grouse, and other sagebrush obligate species by reducing damage to habitat and competition for forage.</p> <p>Restrictions to energy and mineral development would be implemented to protect sage-grouse leks, known raptor nests, and pronghorn kidding grounds, in addition to other sensitive wildlife habitats.</p>	<p>Same as Alternative 1.</p>	<p>The Preferred Alternative would result in minor to moderate adverse effects to wildlife habitat from a combination of livestock and wild horse grazing, potential energy development, and recreational activities. This alternative would result in minor to major beneficial effects when considered both short-term and long-term and provides the second highest level of protection for sensitive habitats.</p> <p>Impacts from livestock and wild horse grazing would be similar to the No Action Alternative; however adverse impacts should be lessened as changes are implemented to meet or make progress toward land health standards.</p> <p>Two new SRMAs would increase adverse effects from increased disturbance and habitat fragmentation. OHV use allows only 419 acres 'Open', with 261,511 acres 'Closed', and the remainder limited to designated routes.</p>

**Wildlife and Fisheries (continued)**

<p>No seasonal route closures would be designated to protect wildlife habitat or reproductive efforts, possibly causing adverse effects to bald eagles, sage-grouse, and other species.</p> <p>Adverse impacts from wild horses include competition for forage, soil compaction, erosion, sedimentation, and degradation of accessible stream channels.</p> <p>This alternative would result in minor to moderate beneficial impacts to wildlife and habitats from maintenance of existing structures and projects (guzzlers, exclosures, riparian and meadow projects, and waterfowl nesting islands).</p>	<p>Exclosures and riparian/meadow projects would not be maintained, resulting in minor adverse impacts.</p> <p>Two new SRMAs would increase adverse effects from increased disturbance and habitat fragmentation.</p> <p>No seasonal route closures would be designated to protect wildlife habitat or reproductive efforts, possibly causing adverse effects to bald eagles, sage-grouse, and other species.</p> <p>This alternative would result in moderate beneficial impacts to wildlife and habitats from reducing juniper on 10,000-15,000 acres.</p> <p>Restoration of sites to their ecological potential would result in long term benefits to ungulates, sage-grouse, and sagebrush obligate species. Improvements on 1,050-2,100 acres (25%-50%) of special habitats would provide minor to moderate benefits to a variety of species.</p>	<p>Reducing juniper on 15,000-20,000 acres may increase the short-term adverse impacts to birds or other species, but restoration of sites to their ecological potential would result in additional long-term benefits to ungulates, sage-grouse, and sagebrush obligate species.</p> <p>Improvements on 2,100-3,150 acres (50%-75%) of special habitats would provide additional minor to moderate benefits to a variety of species.</p> <p>Minor beneficial impacts to upland game birds would occur by constructing brush piles in areas where cover is lacking.</p> <p>California spotted owls would experience minor to moderate beneficial impacts from retaining large-diameter trees and snags, high canopy closure and downed woody material in suitable forest habitat.</p> <p>Management of commercial timber would emphasize wildlife and old growth.</p>		<p>This would minimize and concentrate long-term adverse impacts to wildlife species and habitat, as would closing 45 miles of motorized routes.</p> <p>Seasonal route closures would be designated to protect wildlife habitat and reproductive efforts, providing benefits to bald eagles, sage-grouse and other species by minimizing disturbance and damage to habitat.</p> <p>Seven ACECs would be designated, providing moderate beneficial effects to wildlife and habitat within these areas.</p> <p>Restrictions to energy and mineral development are similar to Alternative 2, except that they apply within 0.25 to 0.60 miles of sage-grouse leks, and 0.25 to 0.50 miles from known raptor nests and pronghorn kidding grounds, in addition to other sensitive wildlife habitats.</p> <p>Vegetation, fuels, forestry, and wildlife actions would result in major beneficial impacts, as described in Alternative 2.</p>
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Wildlife and Fisheries (continued)				
	<p>Fuels treatments and habitat restoration projects would provide long-term beneficial impacts to wildlife and habitat.</p> <p>Minor beneficial impacts to upland game birds would occur by constructing brush piles in areas where cover is lacking.</p> <p>Maintenance of existing guzzlers and waterfowl nesting islands would continue to provide minor to moderate benefits to species utilizing them. Additional beneficial impacts would be realized if new structures or projects were developed.</p>	<p>Fuels buildup would be reduced over the greatest number of acres, reducing the risk of catastrophic wildfires in these areas.</p>		

IMPACTS SUMMARY TABLE

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