

**SNEEKEE FIRE (CR55)  
EMERGENCY STABILIZATION AND REHABILITATION PLAN  
ENVIRONMENTAL ASSESSMENT  
FINDING OF NO SIGNIFICANT IMPACT AND DECISION RECORD  
AND  
PROJECT APPROVAL  
BLM/EK/PL-2006/020**

**Finding of No Significant Impact**

Based on the analysis of potential environmental impacts contained in the Bureau of Land Management (BLM), Elko Field Office, Sneekee Fire (CR55) Emergency Stabilization and Rehabilitation Plan Environmental Assessment BLM/EK/PL-2006/020, I have determined that the proposed action will not have significant impacts on the human environment and that an Environmental Impact Statement is not required.

**Decision**

It is my decision to implement the Emergency Stabilization and Rehabilitation Plans as described in the Environmental Assessment (EA) for the Sneekee Fire BLM/EK/PL-2006/020. A total of 10,280 acres burned in the Sneekee Fire, which consisted of approximately 10,004 acres on public land administered by the BLM and 276 acres of private land. The Sneekee Fire is located in Elko County, Nevada.

Livestock grazing will be removed from the burned area in order to allow the burned and seeded vegetation to successfully establish. The closure will occur for a minimum of two growing seasons or until establishment objectives are met, in order to provide an adequate amount of time to allow the seeded vegetation to establish and plant species not damaged by the wildfire to respond to natural revegetation. The burned area will be reopened to livestock grazing once the establishment objectives in the Fire Closure Agreement/Decision have been met. Interim Management Policy guidelines for grandfathered grazing operations in the wilderness study areas will be followed.

Post-fire grazing management, including the period of time needed for closure, will be determined based on coordination, cooperation, and consultation with the interested public, monitoring, and achievement of site specific resource objectives.

Approximately 6.9 miles of permanent protective fence will be repaired or replaced. The fence will be repaired or replaced to BLM specifications. Repair and replacement of existing burned fences will allow for closing the area to livestock grazing without building any new temporary fences. Burned fence materials, including wire, will be removed.

Drill seed approximately 850 acres on the ridges and drainages between the Cedar Ridge Wilderness Study Area (WSA) and the Red Springs WSA. The drill seeding will be accomplished utilizing Truax or other minimum till drills. Species to be seeded include big bluegrass, Indian rice grass, bluebunch wheatgrass, and thickspike wheatgrass.

Aerially seed approximately 400 acres of ephemeral drainage bottoms and areas with juniper woodlands that experienced moderate to high fire severity within the WSAs. Species to be seeded include basin big sagebrush, Western wheatgrass and bluebunch wheatgrass. Aerial seeding will be accomplished using a helicopter and seed bucket or broadcaster. The seed will be applied when weather conditions are favorable to allow for coverage by snow or adequate moisture, and thus will be applied in late fall or early winter.

Aerially seed approximately 850 acres of public lands within a 7,690-acre area with aerial mix consisting of basin big sagebrush and Wyoming big sagebrush. This seed mixture will be applied within swales, draws and slopes throughout the burn area outside the estimated 1,107 acres of unburned vegetation within the perimeter ("islands"), 278 acres of private lands, 805-acre fire affected portion of the Hansel Seeding (crested wheatgrass seeding) and 400 acres proposed as the Aerial Watershed Seeding. This includes seed applied over the proposed drill seeded area and on larger blocks on lower to upper elevations that burned completely including crucial mule deer winter range.

Aerial seeding will be accomplished using aircraft such as a helicopter with a seed broadcaster. The seed will be applied when weather conditions are favorable to allow for coverage by snow or adequate moisture, and thus will be applied in late fall or early winter.

The dozerline will be seeded utilizing a broadcast or drill method. Broadcast seeding methods will be done utilizing either an ATV, pickup, dozer, equivalent piece of equipment or by hand. Broadcast seeding will be conducted on areas that are not conducive to drill seeding. Drill seeding methods will be done utilizing a rangeland drill or equivalent piece of equipment. The dozerline will be dragged using a harrow or equivalent piece of equipment to provide full soil contact of the seeded species, in order to increase the success of treatment. The dozerline will be seeded with a perennial grass-forb mixture, such as crested wheatgrass, Siberian wheatgrass, and Ladak alfalfa.

Treatments and evaluations will be conducted on approximately 70 acres (35 acres treatments and 35 acres evaluations) of hoary cress, Scotch thistle, Canada thistle, Russian knapweed, and spotted knapweed for 3 years. More infestations may be detected as plants recover from the fire or establish from spread seeds. Integrated weed treatments will be used including, but may not be limited to, manual and chemical weed control measures. Manual treatments will be done by grubbing with shovels or hand pulling or chopping off of fruiting structures. Chemical treatments will be done following all label requirements and conform to the BLM Chemical Pest Control Handbook H-9011-1. Herbicides, Surfactants, and Dyes used will be approved for use on BLM administered lands and applied following standard safety and operating procedures. Herbicide application to rangeland sites will be by low pressure backpack sprayer or hand gun from an ATV. Herbicide application to road right-of-ways will be by vehicle mounted unit or ATV. No aerial application is planned.

Approximately 10,004 acres shall be inventoried for noxious weeds. The methods will be a broad scale ocular observation for qualitative and quantitative data. Infestations found will be documented using GPS for mapping and will be included in the plan for treatment at the next appropriate treatment time. The access roads through the fire and the dozerlines will also be inventoried.

Cultural resource inventories will be conducted for the proposed drill seeding. The cultural resource inventories will be conducted prior to the implementation of the proposed stabilization and rehabilitation efforts. The cultural resource inventories will be conducted in order to identify any cultural resources that need to be protected and avoided during the implementation of the stabilization and rehabilitation efforts.

All cultural resources located or relocated will be recorded on the Nevada IMACS site forms and plotted on maps. Resources, except those previously determined not eligible by the BLM and SHPO, or have been fully mitigated, will be flagged for avoidance and avoided during stabilization and rehabilitation activities. Flagging will be removed as soon as possible to minimize the potential for looting and vandalism.

### **Monitoring**

Conduct monitoring on the proposed action each year following treatment (2007-2009) to determine the success of revegetation and/or stabilization efforts. Specific monitoring method(s) used will depend on the establishment objectives developed. For example, if the establishment objective is three seeded plants firmly rooted per square meter, utilize a modified "freqdens" techniques or similar BLM established methods for seeded areas. If the establishment objective is herbaceous production equal to or greater than herbaceous production of a comparable unburned range site, use production/site composition methods and/or density for areas managed for natural release. A resource specialist from the Elko Field Office will provide program oversight for this specification.

Post-treatment monitoring studies will be conducted to evaluate the effectiveness of the proposed treatments or to determine if additional treatments are needed, and to determine the time frame for re-opening lands for grazing. The monitoring results will be documented in the project file at the BLM, Elko Field Office.

### **Rationale**

Implementation of the proposed action described in the Emergency Stabilization and Rehabilitation Plan EA for the Sneekee Fire will protect soils in the burned area, including preventing potential loss of soil due to wind and water erosion; will reduce potential invasion and establishment of noxious weeds and cheatgrass; will provide quality

forage for livestock and wildlife; and will facilitate meeting established standards and guidelines for livestock grazing.

Exclusion of livestock grazing is necessary to allow seedling establishment, restore plant vigor and seed production, and to allow reestablishment of preferred species and to deter invasion of undesirable species. The existing fences will be repaired or reconstructed to keep grazing animals off the recovering burn to allow establishment of seeded and pre-fire vegetation species. This fencing and subsequent rest from grazing will allow for plants to reestablish and develop effective root depths and root reserves. Vegetation establishment will help reduce the risk of accelerated soil erosion and mud flows into Huntington Creek, and provide for soil stabilization.

The proposed drill and aerial seeding will increase native perennial grass and shrub cover, provide soil stabilization, which will reduce runoff and associated sediment loading to Huntington Creek; reduce the potential for invasion nonnative invasive plant species, such as cheatgrass, and noxious weeds, such as hoary cress, Scotch thistle, Canada thistle, Russian knapweed, and spotted knapweed. It will also provide cover and forage for affected wildlife populations, including special status species, sage grouse, pronghorn antelope, and mule deer. Overall, over 250 wildlife species that inhabit sagebrush habitats on a seasonal or yearlong basis, including sagebrush dependent species and migratory birds will benefit. Specifically, this seeding will provide forage for pronghorn antelope and mule deer. Other sagebrush dependent species such as sage grouse will also benefit. Migratory birds that utilize shrubs for nesting will also benefit. Seeding with shrub and grasses will provide deep rooted perennial plants to establish, which will help provide soil stabilization, trap snow and reduce evaporation of the moisture from the soils due to wind. Shrubs will also provide sheltered areas from the wind, which will reduce some wind erosion on the site. All of these functions enhance the herbaceous plant community which protects the soil from potential increased soil erosion that is likely following a fire and reduces the opportunities for increases in invasive nonnative plant or noxious weed species. Establishment of vegetation helps to stabilize watersheds and upland soils to prevent further degradation to affected resources on lands within the fire perimeter or downstream drainages that may result from short duration, high intensity precipitation events. The seedings will help return the WSAs to a more natural landscape.

Control of noxious weeds is consistent with the management plans for the resource and will help protect the ecological integrity, biodiversity, and site productivity of this shrub-steppe plant community. Treatment of noxious weeds is necessary to comply with Nevada State Laws, to implement the Integrated Weed Management Program of the Elko Field Office, and to be responsible neighbors to the adjacent private landowners. Working cooperatively with local weed management groups and private landowners will achieve better weed management.

The proposed action conforms to the 1987 Elko Resource Management Plan (RMP), as it was amended for fire management on September 29, 2004. The decision for fire rehabilitation from the Approved Fire Management Amendment, page 20, is to “Conduct fire rehabilitation activities to emulate historic or pre-fire ecosystem structure, functioning, diversity and/or to restore a healthy stable ecosystem.” All stabilization and rehabilitation activities within Wilderness Study Areas (WSAs) will conform to the BLM Manual H-8550-1, Interim Management Policy (IMP) for Lands Under Wilderness Review. The proposed action is consistent with resource objectives of the plan and with other Federal, state, local and tribal laws, regulations, policies and plans to the maximum extent possible.

### **Approval and Implementation Date**

This wildfire management decision is issued under 43 CFR 4190.1 and is effective immediately. The BLM has made the determination that vegetation, soil, or other resources on the public lands are at risk of wildfire due to drought, fuels buildup, or other reasons, or at immediate risk of erosion or other damage due to wildfire. Thus, notwithstanding the provisions of 43 CFR 4.21(a)(1), filing a notice of appeal under 43 CFR Part 4 does not automatically suspend the effect of the decision. The Interior Board of Land Appeals must decide an appeal of this decision within 60 days after all pleadings have been filed, and within 180 days after the appeal was filed. (43 CFR 4.416)

### **Administrative Review or Appeal Procedures**

Within 30 days of receipt of this decision, parties who are adversely affected and believe it is incorrect have the right to appeal to the Department of the Interior Board of Land Appeals, Office of the Secretary, in accordance with

regulations at 43 CFR 4.4. Procedural information on "Taking Appeals to the Board of Land Appeals" can be obtained at the BLM, Elko Field Office. An appeal should be in writing and specify the reasons, clearly and concisely, as to why the decision is in error. A copy of the Statement of Reasons must also be supplied to this office. Also within 30 days of receipt of this decision, appellants have a right to file a petition for a stay (suspension) of the decision together with an appeal, in accordance with the regulations at 43 CFR 4.21. The appellant has the burden of proof to demonstrate that a stay should be granted.

          /s/    
HELEN HANKINS  
Field Manager

  10/6/06    
Date

**SNEEKEE FIRE (CR55)  
EMERGENCY STABILIZATION AND REHABILITATION PLAN  
ENVIRONMENTAL ASSESSMENT  
BLM/EK/PL-2006/020**

**CHAPTER 1 INTRODUCTION/PURPOSE AND NEED**

**1.1 INTRODUCTION**

The Bureau of Land Management (BLM), Elko Field Office, proposes to conduct emergency stabilization and rehabilitation activities on the public lands affected by the Sneekee Fire (CR55). The Sneekee Fire started on June 26, 2006 and was contained on July 1, 2006. The Sneekee Fire was lightning caused. The Sneekee Fire burned a total of approximately 10,280 acres, which consisted of approximately 10,004 acres on public land administered by the BLM Elko Field Office and 276 acres of private land. Resources that were threatened and/or damaged by the fire or fire suppression activities consisted of range improvements (fences), wildlife habitat, soil, vegetation, and cultural resources.

The legal description for the Sneekee Fire is:

MDB&M, T. 30 N., R. 55 E., Sections 2-5, 8-23, 27-33  
T. 31 N., R. 55 E., Sections 33, 34

This Environmental Assessment (EA) has been prepared to comply with the National Environmental Policy Act of 1969. This EA tiers the Elko and Wells Resource Management Plans Fire Management Amendment Environmental Assessment (BLM/EK/PL-2003/026) that was completed in 2003, the FY2000 Normal Fire Rehabilitation Plan Environmental Assessment (NFRPEA), (BLM/EK/PL-2000-037), which was completed to update and replace the FY93 Normal Fire Rehabilitation Plan Environmental Assessment (EA-NV-010-92-060). These EAs analyze the wide range of treatments utilized by the BLM, Elko Field Office, for emergency stabilization and rehabilitation activities on public lands. The proposed treatments the Sneekee Fire for emergency stabilization and rehabilitation are consistent with the treatments described in these EAs. The general description and impact analysis of the emergency stabilization and rehabilitation treatments is also described in these EAs. The Proposed Action for the Sneekee Fire includes the following NFRPEA Treatments: 1 (Grazing Closure), 2 (Planting of Multiple Species Seed Mixtures), 5 (Dozer line Rehabilitation), 8 (Invasive, Nonnative Weed Control), and 10(Cultural resource site stabilization and protection).

Treatments for invasive, nonnative species are consistent with the methods described and evaluated in the Vegetation Treatment on BLM Lands in Thirteen Western States Final Environmental Impact Statement (FEIS) and the Programmatic Environmental Assessment of Integrated Weed Management on Bureau of Land Management Lands (BLM/EK/PL-98/008) for the Elko Field Office.

The 2005 Crispix Fire occurred near the Sneekee Fire. An environmental assessment, Crispix Fire (B65F) Emergency Stabilization and Rehabilitation Plan EA (BLM/EK/PL-2006/002), analyzed the emergency stabilization and rehabilitation activities conducted by the BLM Elko Field Office for the Crispix Fire.

The maps illustrating the proposed action are available in the BLM, Elko Field Office.

**1.2 PURPOSE AND NEED**

The purpose of the proposed action described in the emergency stabilization and rehabilitation plans and this EA is to protect the burned area from livestock grazing, seed the burned area to stabilize the soils and prevent the establishment of annual, invasive nonnative plant and noxious weed species, allow the undamaged plant species time to reestablish, and treat the invasive nonnative plant and noxious weed species to prevent spreading. The need for the proposed action is to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to life or property resulting from the effects of the fire, to reconstruct physical improvements

necessary to prevent degradation of land or resources, and to prescribe cost effective post-fire stabilization and rehabilitation measures necessary to protect human life, property, and critical cultural and natural resources.

### **1.3 LAND USE PLAN CONFORMANCE STATEMENT**

The proposed action conforms to the 1987 Elko Resource Management Plan (RMP), as it was amended for fire management on September 29, 2004. The decision for fire rehabilitation from the Approved Fire Management Amendment, page 20, is to “Conduct fire rehabilitation activities to emulate historic or pre-fire ecosystem structure, functioning, diversity and/or to restore a healthy stable ecosystem.” All stabilization and rehabilitation activities within Wilderness Study Areas (WSAs) will conform to the BLM Manual H-8550-1, Interim Management Policy (IMP) for Lands Under Wilderness Review. The proposed action is consistent with resource objectives of the plan and with other Federal, state, local and tribal laws, regulations, policies and plans to the maximum extent possible.

## **CHAPTER 2 PROPOSED ACTION AND ALTERNATIVE**

### **2.0 PROPOSED ACTION**

#### **2.0.1 GRAZING CLOSURE**

Livestock grazing would be removed from the burned area in order to allow the burned and seeded vegetation to successfully establish. The closure would occur for a minimum of two growing seasons or until establishment objectives are met, in order to provide an adequate amount of time to allow the seeded vegetation to establish and plant species not damaged by the wildfire to respond to natural revegetation. The burned area would be reopened to livestock grazing once the establishment objectives in the Fire Closure Agreement/Decision have been met. Interim Management Policy guidelines for grandfathered grazing operations in the wilderness study areas would be followed.

Post-fire grazing management, including the period of time needed for closure, would be determined based on coordination, cooperation, and consultation with the interested public, monitoring, and achievement of site specific resource objectives.

Approximately 6.9 miles of permanent protective fence would be repaired or replaced. The fence would be repaired or replaced to BLM specifications. Repair and replacement of the existing burned fences would allow for closing the area to livestock grazing without building any new temporary fences. Burned fence materials, including wire, would be removed.

#### **2.0.2 PLANTING OF MULTIPLE SPECIES SEED MIXTURES**

Drill seed approximately 850 acres on the ridges and drainages between the Cedar Ridge Wilderness Study Area (WSA) and the Red Springs WSA. The drill seeding would be accomplished utilizing Truax or other minimum till drills. Species to be seeded include big bluegrass, Indian rice grass, bluebunch wheatgrass, and thickspike wheatgrass.

Aerially seed approximately 400 acres of ephemeral drainage bottoms and areas with juniper woodlands that experienced moderate to high fire severity within the WSAs. Species to be seeded include Western wheatgrass and bluebunch wheatgrass. Aerial seeding would be accomplished using a helicopter and seed bucket or broadcaster. The seed would be applied when weather conditions are favorable to allow for coverage by snow or adequate moisture, and thus would be applied in late fall or early winter.

Aerially seed approximately 850 acres of public lands within a 7,690-acre area with aerial mix consisting of basin big sagebrush and Wyoming big sagebrush. This seed mixture would be applied within swales, draws and slopes throughout the burn area outside the estimated 1,107 acres of unburned vegetation within the perimeter (“islands”), 278 acres of private lands, 805-acre fire affected portion of the Hansel Seeding (crested wheatgrass seeding) and 400 acres proposed as the Aerial Watershed Seeding. This includes seed applied over the proposed drill seeded area and on larger blocks on lower to upper elevations that burned completely including crucial mule deer winter range.

Aerial seeding would be accomplished using aircraft such as a helicopter with a seed broadcaster. The seed would be applied when weather conditions are favorable to allow for coverage by snow or adequate moisture, and thus would be applied in late fall or early winter.

### **2.0.3 DOZERLINE REHABILITATION**

The dozerline would be seeded utilizing a broadcast or drill method. Broadcast seeding methods would be done utilizing either an ATV, pickup, dozer, equivalent piece of equipment or by hand. Broadcast seeding would be conducted on areas that are not conducive to drill seeding. Drill seeding methods would be done utilizing a rangeland drill or equivalent piece of equipment. The dozerline would be dragged using a harrow or equivalent piece of equipment to provide full soil contact of the seeded species, in order to increase the success of treatment. The dozerline would be seeded with a perennial grass-forb mixture, such as crested wheatgrass, Siberian wheatgrass, and Ladak alfalfa.

### **2.0.4 INVASIVE, NONNATIVE WEED CONTROL**

Treatments and evaluations would be conducted on approximately 70 acres (35 acres treatments and 35 acres evaluations) of hoary cress, Scotch thistle, Canada thistle, Russian knapweed, and spotted knapweed for 3 years. More infestations may be detected as plants recover from the fire or establish from spread seeds. Integrated weed treatments would be used including, but may not be limited to, manual and chemical weed control measures. Manual treatments would be done by grubbing with shovels or hand pulling or chopping off of fruiting structures. Chemical treatments would be done following all label requirements and conform to the BLM Chemical Pest Control Handbook H-9011-1. Herbicides, Surfactants, and Dyes used would be approved for use on BLM administered lands and applied following standard safety and operating procedures. Herbicide application to rangeland sites would be by low pressure backpack sprayer or hand gun from an ATV. Herbicide application to road right-of-ways would be by vehicle mounted unit or ATV. No aerial application is planned.

Approximately 10,004 acres should be inventoried for noxious weeds. The methods would be a broad scale ocular observation for qualitative and quantitative data. Infestations found would be documented using GPS for mapping and would be included in the plan for treatment at the next appropriate treatment time. The access roads through the fire and the dozerlines would also be inventoried.

### **2.0.6 CULTURAL RESOURCE SITE STABILIZATION AND PROTECTION**

Cultural resource inventories would be conducted for the proposed drill seeding. The cultural resource inventories would be conducted prior to the implementation of the proposed stabilization and rehabilitation efforts. The cultural resource inventories would be conducted in order to identify any cultural resources that need to be protected and avoided during the implementation of the stabilization and rehabilitation efforts.

All cultural resources located or relocated would be recorded on the Nevada IMACS site forms and plotted on maps. Resources, except those previously determined not eligible by the BLM and SHPO, or have been fully mitigated, would be flagged for avoidance and avoided during stabilization and rehabilitation activities. Flagging would be removed as soon as possible to minimize the potential for looting and vandalism.

## **2.1 ALTERNATIVE TO THE PROPOSED ACTION**

### **2.1.1 NO ACTION ALTERNATIVE**

Under the No Action Alternative, the proposed emergency stabilization and rehabilitation activities would not be approved and would not be implemented. All natural resources would be left to the process of natural rehabilitation. Topsoil would be loss due to wind and water erosion. The plant community would encounter increase loss of diversity and structure. The probability of increased densities and infestations of noxious weeds and invasion of nonnative invasive species is high.

## CHAPTER 3 AFFECTED ENVIRONMENT

The Sneekie Fire burned approximately 10,280 acres of public and private land in Elko County, Nevada. The fire is located south of Elko, Nevada. The fire burned across mountains, hills, fan piedmont remnants, fan skirts, and inset fans, which are typical of the landforms found in the Basin and Range Physiographic Province. Elevations within the burn area range from approximately 5,377 to 7,077 feet. The average annual precipitation is 9 inches, which occurs mainly during winter and spring.

### 3.1 PROPOSED ACTION

The following critical elements of the human environment are not present or are not affected by the proposed action or alternative in this Environmental Assessment:

- \* Areas of Critical Environmental Concern/Special Management Areas
- \* Environmental Justice
- \* Farmlands (Prime or Unique)
- \* Native American Religious Concerns
- \* Threatened and Endangered Species: The area provides winter habitat for bald eagles, a threatened species. Bald eagles foraging habitat is widely dispersed on upland habitat throughout the Humboldt River drainage, which includes Huntington Creek and surrounding areas.
- \* Wastes (Solid or Hazardous)
- \* Wild and Scenic Rivers
- \* Wilderness

Bureau specialists have further determined that the following resources, although present in the project area, are not affected by the proposed action:

- \* Lands: The project area includes both public lands administered by the BLM, Elko Field Office, and private lands. No rights-of-ways are affected by the proposed action.
- \* Recreation: The project area is located within an area of dispersed and moderate recreation use. No developed recreation sites occur within the burned area. Primary forms of recreation in the burned area may include hunting, hiking and off-highway vehicle touring.

Casual off-highway vehicle (OHV) use occurs within the burned area, but outside of the WSAs. This off-highway vehicle use occurs on a network of existing designated and undesignated routes, tracks, trails and overland or cross-country travel. Off-highway vehicle (OHV) use is associated with recreation uses such as hunting and wood cutting. Big game and bird hunting in the fall are the primary hunting uses within the burned area.

- \* Socio-economics
- \* Wetlands/Riparian Zones: No wetland/riparian areas are known to exist within the burn.

Critical elements and other resources brought forward for analysis:

#### 3.1.1 AIR QUALITY

The burned area is located in an unclassified air basin. Air quality is generally considered good and thus considered to be in attainment, for the National Ambient Air Quality Standards criteria pollutants. The nearest Class I, Prevention of Significant Deterioration Area is located at the Jarbidge Wilderness Area in the northeast portion of the state.

There are localized occurrences of dust and blown ash caused by high winds, vehicular traffic, and construction activities. Smoke emissions from local fires sometimes cause short term reduction in visibility and fire fighting activities using mechanized equipment can produce dust.



### **3.1.2 CULTURAL RESOURCES**

Only a small portion of the area burned during the Sneekee Fire has previously been inventoried for cultural resources. Several dozen archaeological sites are known from the approximately thousand inventoried acres, and they include historic ranch and homestead complexes, and associated roads, and prehistoric camps and a possible pronghorn kill-site. The density of cultural resources and presence of historic properties (or sites eligible for the National Register of Historic Places) appears to be much greater within juniper woodlands, than on the more open sagebrush areas. Where the fire burned at low to moderate intensity it probably had minimal impact upon non-organic artifacts, such as those made from stone, glass or metal. Some wooden structures, mostly dating from historic times and shown on various Government Land Office maps dating from the late 19<sup>th</sup> century, may have been ignited and destroyed in the fire.

### **3.1.3 LIVESTOCK GRAZING**

Approximately 8,750 acres burned in the Hansel Allotment, 1,100 acres burned in the Crane Springs, 270 acres burned in the El Jiggs Allotment, and Allotment 50 acres burned in the Sleeman Allotment. The Sneekee Fire burned mostly within the Rodgers Field of the Hansel Allotment. It also burned into the Crane Springs, El Jiggs and Sleeman Allotments. The permittee for the Hansel Allotment is Paris Livestock Company. The permittee for the Crane Springs Allotment is South Fork Livestock Partnership. The permittee for the El Jiggs and Sleeman Allotments is Scott McLachlan.

Cattle have historically grazed Rodgers Field of the Hansel Allotment from April 15 to July 30 on an annual basis. The total permitted active use for livestock in the Rodgers Field of the Hansel Allotment is approximately 1,087 animal unit months (AUMs). The season of use in the Crane Springs Allotment is from April 15 to October 15. the total permitted use for livestock in the Crane Springs Allotment is 1,276 AUMs.

### **3.1.4 MIGRATORY BIRDS**

The proposed action is located on areas characterized by the following vegetation types: Wyoming, basin big sagebrush, mountain shrub ("montane shrub") and juniper woodlands vegetation types. These areas provide foraging areas and cover diversity for migratory birds. Some areas have a mottling of these vegetation types with loamy bottom ephemeral drainages. The northeast portion of the burn is in close proximity to meadows and riparian habitat associated with private lands along Huntington Creek. Maintaining complete, diverse sagebrush communities is integral to conservation efforts for foraging areas and cover diversity for migratory birds. A list of the migratory birds affected by the President's executive order is contained in 43 CFR 10.13. References to "species of concern" pertain to those species listed in the periodic report "Migratory Nongame Birds of Management Concern in the United States", priority migratory bird species as documented by established plans (such as Bird Conservation Regions in the North American Bird Conservation Initiative or Partners in Flight physiographic areas), and those species listed in 50 CFR 17.11. The Nevada Partners in Flight Bird Conservation Plan identifies the bird species for prioritization for management action associated with each of the habitat types described above for the Sneekee Fire (See Appendix A).

### **3.1.5 NONNATIVE INVASIVE PLANT SPECIES**

The noxious weed species found within the burned area include hoary cress, Scotch thistle, Canada thistle, Russian knapweed, and spotted knapweed. Approximately 15 acres of hoary cress, 5 acres of Scotch thistle, 5 acres of Canada thistle, 5 acres Russian knapweed and 5 acres of spotted knapweed are known to inhabit the burned area on public lands. Hoary cress, Scotch thistle, Canada thistle, Russian knapweed and spotted knapweed exist along roads and the southern boundary of the Red Springs WSA. Hoary cress, Scotch thistle, Canada thistle, Russian knapweed, and spotted knapweed are Nevada designated noxious weed species. Other infestations of noxious weeds also exist on roads west of the burned area near the 2005 Crispix Fire.

Cheatgrass is present throughout the burn perimeter. Numerous patches of cheatgrass were observed near the perimeter of the fire and in the unburned islands, increasing the likelihood of cheatgrass existed inside the burn area.

### **3.1.6 SOILS**

Soil information is derived from the Soil Survey of Elko County, Nevada Central Part. More detailed soil information can be found in this document. The burn occurs within numerous soil map units. The fire burned hot along the drainages which have (SMU 228) Enko-Kelk soils which are deep sandy loam or silt loam soils. According to the soil survey they have slight wind and water erosion hazard, but active downcutting and soil movement were observed in a recent field inspection.

Soils on fan piedmont remnants on 4 to 15 percent slopes are (650-Karpp-Chiara-Rad) silty soils which are usually shallow over a duripan. They have moderate water erosion and slight wind erosion hazards. Utah juniper grows on these soils. These soils have well developed biological soil crusts and good micro topography which helps promote infiltration. There is little understory in the juniper areas, and there is little vegetation remaining to stabilize the soils.

Soils on the steepest side slopes have (716-Samor-Rock Outcrop-Nirac) very gravelly or cobbly shallow to moderately deep soils over bedrock. Rock outcrop comprises 20 percent of this map unit. Utah juniper also occurs on these soils. These soils have moderate to high water erosion hazard and slight wind erosion hazard. Most of these soils had moderate burn severity.

The dominant soils that occur on fan piedmont remnants on 2 to 8 percent slopes are in the (1271) Wieland-Enko association. These are deep soils with silt loam surface textures. They have medium runoff and slight wind and water erosion hazard. Most of the proposed drill seeding would occur on these soils where the burn severity was moderate.

Other soils that occur on fan piedmont remnants are (331) Bunky-Grina-Enko association in the northeast burned area, and (374) Chiara-Wieland-Enko association in the southeast. These soils formed in mixed alluvium influenced by volcanic ash. Their depth ranges from shallow to deep over silica cemented hardpan or bedrock. Grina soil is shallow over bedrock and occurs on side slopes in the Red Springs WSA. It has a high water erosion hazard. The other soils have slight wind and water erosion hazards. These soils are not proposed for treatment.

Sheet, gully, and wind erosion were observed in the burned area in a recent field inspection. Most of the drainages were incised, sheet erosion was occurring on the fan piedmont remnants, and blowing dust occurs when the surface soil crust is broken.

### **3.1.7 VEGETATION**

Vegetation in the burned area before the Sneekie Fire consisted of basin big sagebrush, Wyoming big sagebrush and rabbitbrush with an understory of Sandberg's bluegrass, Great Basin wildrye, bluebunch wheatgrass, bottlebrush squirreltail and cheatgrass. Patches of burned and unburned juniper woodlands are also present. Due to the sparse understory of vegetation, scattered patches of juniper woodland did not burn. The previous Dido and Sadler Fires of 1999 had already burned most of the sagebrush and juniper trees within the area leaving only one ridge unburned. Other vegetation communities noted were crested wheatgrass seedings, Juniper woodland-associated species, and invasive annual grassland. This was largely a moderate intensity burn along hill crests containing mostly sagebrush, juniper and rabbitbrush. High intensity burn areas included low-lying flatlands and drainage slopes where seed within the soils was either consumed or the intense heat significantly reduced seed viability. Many islands were left unburned and seed stalks were left intact as well as the crown of the plants.

No known plant species designated as Special Status Species are known to occur on the burn area.

### **3.1.8 VISUAL RESOURCES**

The Sneekie Fire is located within Visual Resource Management (VRM) Classes I and IV. Class I is reserved for those areas designated as Wilderness Study Areas. The Class I objective is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, 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.

The Class IV VRM objective is to allow for management activities that involve major modification of the existing character of the landscape. The level of contrast can be high, dominating the landscape and the focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements of the characteristic landscape.

The landscape consists of various terrain types from floodplains, relatively flat plateaus, gently rolling hills, to steep hill slopes. Landscape colors include vegetative seasonal color variations of green, gray-green, and light yellowish tan to brown and blackened vegetation from the June 2006 Sneekie Fire. Soil colors are light browns and tan. Vegetative texture is a fairly uniform composition of shrubs and grasses in the lower elevations and rough texture in the higher elevations due to the presence of juniper woodlands.

Man-made features in the area are mostly linear. These include bladed dirt roads, two-track roads/jeep trails, and fences.

### **3.1.9 WATER QUALITY (SURFACE)**

There are no perennial streams within the burned area. The fire is drained by ephemeral drainageways tributary to Huntington Creek on the eastern side of the fire. Huntington Creek is a perennial stream, with Nevada Class B water quality standards. A small area on the far west side of Cedar Ridge drains into Crane Springs Canyon.

#### **3.1.10 WILDLIFE AND SPECIAL STATUS SPECIES**

The Sneekie Fire occurred within mule deer crucial winter range and summer range. It is estimated that fifty percent of the burn occurred in mule deer crucial winter range and one hundred percent is antelope yearlong habitat. The burn area is primarily characterized by the Wyoming and basin big sagebrush vegetation type, with juniper stands, that provide the main shrub component needed for forage and cover, and ecological site dynamics on the affected area. The availability of winter range with intact shrub cover is presently a limiting factor for affected mule deer populations in regard to previous impacts associated with the Saddler and Dido fires in 1999 on the same collective winter range area.

Collectively, more than 250 wildlife species could utilize suitable habitat on the affected area on a seasonal or yearlong basis. Other game and nongame wildlife species include approximately 100 bird species, 70 mammal species and several reptile and amphibian species that can be found in sagebrush habitats on the allotment on a seasonal or yearlong basis. The fire area provides habitat for many of these species. Some of these species are shown for the "Lower Sagebrush/Grassland Steppe - Northeastern Nevada" in Appendix B while others are shown/duplicated in Nevada Partners in Flight Bird Conservation Plan Appendix A per affected habitat type. For more complete lists, consult the BLM Nevada Elko District Bird, Mammal, and Reptile and Amphibian Lists available through BLM Elko Field Office.

The area provides seasonal or yearlong habitat for 22 terrestrial wildlife species that have been designated as State of Nevada Listed Species and Nevada BLM Sensitive Species. New bat species may find roosting sites in juniper woodlands, cliff and talus areas, as well as, other rock outcrops within sagebrush habitat areas and areas adjacent to riparian wetlands along Huntington Creek. See Appendix C. Sage grouse are a BLM Sensitive Species. The burned area is within the South Fork Sage Grouse Population Management Unit (PMU) in Northeastern Nevada considered under the 2004 Elko Strategy by the Northeastern Nevada Stewardship Group Inc (NNSG). Habitat Quantity Risk Factors for the PMU include, "Fire has greatly reduced quantity of sagebrush habitat." The burn area provides summer use habitat with upland areas in close proximity to meadow and riparian habitat associated with Huntington Creek having the highest potential for use.

Pygmy rabbits are found in a variety of vegetation types that include big sagebrush that are suitable for creating their burrow system. Observations in Nevada have been made over broad areas including those characterized by the Wyoming and basin big sagebrush vegetation types. These vegetation types were affected by the fire. Relative to the affected area, the highest likelihood of occurrence would be on sites that support big sagebrush that may be associated with meadows or former meadows or areas directly adjoining these areas. There have been no recorded observations of pygmy rabbits within the burned area.

There are nineteen raptor species present in the Elko District. All nineteen have the potential to utilize habitats available on the burned area. Ferruginous hawks have been observed within the fire perimeter and Nevada Division of Wildlife (NDOW) data base indicated six documented nest sites within the burn as of 1995.

The area potentially provides habitat for Mattoni's blue butterfly. This species is found in association with slender buckwheat (*Eriogonum microthecum* var. *laxiflorum*). This buckwheat subspecies occurs in mountain habitats above approximately 4,900 feet in elevation and might occur within the burn area.

### 3.1.11 WILDERNESS STUDY AREAS

The Sneekee Fire burned in portions of the Red Spring and Cedar Ridge Wilderness Study Areas (WSA). Approximately 878 acres burned within Red Spring WSA and 4,537 acres burned in Cedar Ridge WSA (for a total of 5,415 acres in WSAs). WSAs are managed under BLM Manual H-8550-1, Interim Management Policy (IMP) for Lands Under Wilderness Review.

The Nevada Wilderness Study Area Notebook (2000), states the following for Wilderness Characteristics of the Red Spring WSA:

**Naturalness:** The area is an eroded limestone ridge of rolling hills and drainages with dense juniper woodland. Elevations vary between 5,500 and 6,400 feet. With the exceptions of past and ongoing woodcutting and the Red Spring development (230 feet inside the north boundary), the overall area is natural. The WSA contains extensive evidence from over a hundred years of woodcutting. The imprint of man's work is subtle and possible to escape in much of the area, but is not entirely avoidable. Naturalness is not outstanding.

**Solitude:** While most of the WSA contains sufficient topographic and vegetative screening, the quality is only fair to good because of outside influences. The remaining portion, along the eastern and western boundaries, offers no opportunities for solitude. Additionally, the quality is diminished by the sights and sounds of activities outside the WSA.

**Primitive and Unconfined Recreation:** The area does not have outstanding or diverse primitive recreation opportunities. There is little challenging terrain for hiking. While camping opportunities exist, the lack of water, short hiking distances, and less than outstanding attractiveness discourage this use. Small populations and low wildlife diversity provide limited hunting and wildlife observation opportunities. Horseback riding opportunities are fair to good, but less outstanding because of limited water, short riding distances, and less than outstanding scenery.

**Special Features:** The WSA does not contain any special features.

In the Wilderness Study Area Notebook, the BLM does not recommend the Red Spring WSA for designation as Wilderness. The WSA has high value woodland products, high potential for oil and gas, and moderate potentials for uranium and barite. The availability of these commodities is considered more important than the less than outstanding wilderness values. The area would be difficult to manage under a wilderness designation.

The Nevada Wilderness Study Area Notebook (2000), states the following for Wilderness Characteristics of the Cedar Ridge WSA:

**Naturalness:** The WSA appears natural. Elevations range from 5,613 to 7,149 feet. The east side of the ridge is severely eroded and gullied, while the west side is an uptilted deeply-dissected bench. Vegetation consists of dense stands of junipers and sagebrush. There is no surface water. There are two bladed fence lines, one additional fence, six pit reservoirs and three vehicle ways totaling about five miles. The ways are more noticeable than the pit reservoirs. The WSA contains extensive evidence from over a hundred years of woodcutting. The imprint of man's work is subtle and possible to escape in much of the area, but is not entirely avoidable. Naturalness is not outstanding.

**Solitude:** While the WSA contains sufficient topographic and vegetative screening to provide opportunities for solitude, the quality is only fair to good because of outside influences. The best

opportunity for solitude would occur in an area west of the ridge where deeply dissected drainages occur with dense juniper trees.

**Primitive and Unconfined Recreation:** The WSA lacks outstanding opportunities for primitive and unconfined recreation. The WSA lacks water and challenging hiking terrain. While camping opportunities exist, the lack of water and interesting or unique features discourages this use. Small populations and low wildlife diversity provide very limited hunting or wildlife observation opportunities. Horseback riding opportunities are fair to very good although not challenging nor attractive. Access is very good from almost any point around the unit.

**Special Features:** The WSA does not contain any special features.

In the Wilderness Study Area Notebook, the BLM does not recommend the Cedar Ridge WSA for designation as Wilderness. It suggests that the WSA has high woodland products values, high potential for oil and gas, and moderate potential for uranium and barite. The area would be difficult to manage under a wilderness designation. The availability of woodland products, oil and gas, and minerals is considered more important than the less than outstanding wilderness values.

Noxious and invasive weeds are present within and around the burned Wilderness Study Areas.

In both the Red Spring and Cedar Ridge WSAs, naturalness is not impacted by the fire when considering that fire is a natural process. The islands of vegetation that remain lend to the areas naturalness and diversity. Solitude remains the same as described above or is somewhat diminished due to the lack of screening vegetation. Primitive and unconfined recreation is still available but may be undesirable for a few years post-fire due to the fact that most visitors do not choose to recreate in blackened and ash ridden vegetation.

For details on plant species and the fire affects on vegetation see the vegetation sections of this environmental assessment. Most of the fire had moderate to low burn severity. Unburned islands remain throughout the fire. Drainages and upslope areas burned the most intensely.

Fences were burned within Cedar Ridge WSA. All fences were present in the original wilderness inventory and are grandfathered in. IMP guidelines for grandfathered grazing operations would be followed.

## **3.2 ALTERNATIVE TO THE PROPOSED ACTION**

### **3.2.1 NO ACTION ALTERNATIVE**

The description of the affected environment for the No Action Alternative would be the same as that for the proposed action. However, differences that may occur to the affected environment would be the result of natural processes and the invasion of nonnative species. The area may experience increased erosion, which could cause increased sedimentation to Huntington Creek. Water quality in Huntington Creek may become more degraded.

## **CHAPTER 4 ENVIRONMENTAL CONSEQUENCES**

### **4.1.1 AIR QUALITY**

Localized blowing ash and soil would occur until the burned soil surface receives enough soil moisture to prevent it from blowing, a physical soil crust forms, or vegetation is reestablished. Treatments which disturb the soil surface would contribute further to wind erosion. However, rest from grazing for a minimum of two growing seasons or until establishment objectives are met and successful revegetation would reduce future fugitive dust emissions to pre-burn conditions.

Wind erosion and blowing ash can increase Particulate Matter #10 (PM 10) emissions, decreasing visibility in the local area. Due to the limited size of the fire, the PM 10 air quality standard should not be exceeded, nor should an impact occur to the Class I area at Jarbidge.

#### **4.1.2. CULTURAL RESOURCES**

Based upon previous cultural inventories in the area, prehistoric resources may have been affected by the fire and suppression techniques. As a result of the fire, any non-burnable cultural resources that exist would be exposed; therefore, materials from cultural resources may be vandalized or looted. Other damages to cultural resources would consist of materials being transported away from the intact sites due to erosion or covered by sediment and damage to the sites by mechanical treatments proposed in this plan.

Archaeological sites and cultural resource properties in the project area must be afforded protection whenever possible. Section 106 of the National Historic Preservation Act mandates the Federal government to account for cultural resources in its projects and undertakings, including fire stabilization and rehabilitation efforts. Ground disturbing activities such as drill seeding could damage cultural sites. Therefore, areas designated for potential ground disturbance would be inventoried for cultural resources before the disturbance occurs in accordance with the State Protocol Agreement between the Nevada BLM and the Nevada State Historic Preservation Office (SHPO) in order to identify any cultural resources that need to be protected during implementation of the proposed treatments.

Known cultural resource sites existing within the burned area that would be or have the potential to be affected by the proposed action would be revisited and flagged for avoidance prior to the implementation of the proposed stabilization and rehabilitation treatments. Cultural resource sites discovered or found during the cultural inventories would also be flagged for avoidance prior to the implementation of the proposed stabilization and rehabilitation treatments.

#### **4.1.3 LIVESTOCK GRAZING**

The fire impacted approximately 8,750 acres of the Rodgers Field within the Hansel Allotment and 1,100 acres in the Crane Springs Allotment. In order to allow the burned and seeded vegetation to successfully establish, livestock grazing would be removed from the burned area within the Rodgers Field of the Hansel Allotment and the fire affected portion of the Crane Springs Allotment for a minimum of two growing seasons allowing an adequate time for the seeded vegetation to establish and natural regrowth and reestablishment to occur.

Closure of the burned area to livestock grazing would result in a temporary reduction in AUMs on the Rodgers Field of the Hansel Allotment and the fire affected portion of the Crane Springs Allotment. This suspension of a portion of the active grazing use would occur for a minimum of two growing seasons or until establishment objectives are met. No emergency stabilization and rehabilitation treatments are proposed for the El Jiggs and Sleeman Allotments. The El Jiggs and Sleeman Allotments would not be closed to grazing.

The proposed closure to grazing within the burned area would protect seeding efforts and aid in natural revegetation of burned public rangeland, while reducing the potential for future invasive, nonnative plant and noxious weed infestations. Grazing closures would also improve future forage conditions for both livestock and wildlife. However, grazing closure and relocation of livestock would have some short-term adverse impacts on the grazing permittees for the Hansel and Crane Springs Allotments.

#### **4.1.4 MIGRATORY BIRDS**

No adverse impacts have been identified as a result of the implementation of the proposed action.

The direct impacts to migratory birds are the loss of habitat for nesting. There are major concerns regarding the temporary to long term loss of the shrub component on migratory bird seasonal use areas. The temporary loss, and sometimes long term or permanent loss, of cover on migratory bird habitat is a critical limiting factor for those species that utilize habitats on a seasonal or yearlong basis that existed with a brush component prior to the fire.

The greatest threat to these sagebrush-dependant migratory bird species is type conversion of sagebrush communities. Maintaining complete, diverse sagebrush communities is integral to conservation efforts for these species. Wyoming and basin big sagebrush were negatively impacted by the fire. Wyoming and basin big sagebrush vegetation types generally do not naturally respond well to complete shrub loss in block-burn configurations. Wyoming and basin big sagebrush seed banks (viable residual seed dispersed last fall and winter)

were likely lost as a result of the fire, particularly, those areas that burned with moderate intensities. Intact stands still exist within the interior of the burn which will aid in natural recruitment. Such natural recruitment, though, would likely not occur or would be slow from intact stands on areas with complete shrub loss and burning of ground litter without rehabilitation. The proposed seed mixture would help to provide wildlife cover and forage and help to minimize the reestablishment of exotic annual plants such as cheatgrass. This mixture would also help allow for any natural reestablishment of shrubs on the burned area. The seeding proposal should provide beneficial impacts to migratory bird species by restoring habitat and is consistent with the conservation measures listed in Section 3(e) of the President's Migratory Bird Executive Order.

Some shrub species associated with sagebrush habitats that have the ability to resprout, such as antelope bitterbrush, spiny hopsage, and black greasewood, would likely sprout from root crowns after the fire. There is no known estimate of what percentage of given species would sprout for the affected area although it can take one or more years for sprouting to occur. The low to moderate burn severity and record high moisture levels received for Northern Nevada from fall 2005 to spring 2006 increases the potential for sprouting.

#### **4.1.5 NONNATIVE INVASIVE PLANT SPECIES**

Hoary cress, Scotch thistle, Canada thistle, Russian knapweed, spotted knapweed and cheatgrass are present within the burn perimeter. These species are found primarily along the roads and in upland range sites. Because the plant community had a small weed component prior to the burn, there is greater potential for these weed species to become more widely established. This potential is the result of a loss of native vegetation and disturbance from suppression activities. Spread of these weeds can reduce forage for native ungulates; increase erosion potential, and reduce the fire return interval. Weed detection inventories, and the treatment of weeds, along with other stabilization and rehabilitation efforts, would minimize the negative impacts of noxious and invasive weed establishment.

It is expected that infestations of these plant species may exist elsewhere within and adjacent to the burn. More infestations may be detected as plants recover from the fire or establish from spread seeds. Nonnative invasive plant species and noxious weeds are invasive by nature and would continue to spread rapidly through the burned area and increase in density unless treated.

The Sneekie Fire set back the successional processes of many mid to late seral plant communities. The loss of perennial vegetation allows for the encroachment of nonnative invasive plant species, such as cheatgrass. The burned area provides window of opportunity or niche for nonnative invasive plants such as cheatgrass to establish. Cheatgrass is a highly invasive undesirable species that thrives across the Great Basin due to its competitive nature and ability to create monocultures and less diversity in the landscape. The shallow root systems increase erosion potentials and decrease watershed health and function. Cheatgrass has low nutritional value for livestock and wildlife, which negatively impacts critical wildlife habitat. It is a fine flashy fuel that increases fire frequencies.

#### **4.1.6 SOILS**

Soils in the burned area are very susceptible to wind, sheet, and gully erosion when the vegetative cover has been removed. Active erosion was noted in several areas during a post fire field inspection. Soils that are located on the fan piedmont remnants that are proposed for drill seeding had primarily moderate burn severity, where little cover remains to protect the soils. The higher elevation sites in the juniper woodland had sparse understory before the fire, although some areas had well developed biologic soil crusts and microtopography which will facilitate infiltration. It will take many years for juniper to reestablish, and with little understory, the soils will be subject to accelerated erosion for many years unless they are stabilized with grasses and forbs. Most of the drainages burned with moderate to high severity and there is little vegetation remaining to stabilize them. Many of the drainages are incised and are susceptible to further accelerated erosion. Huntington Creek, a Nevada Class B stream, is located within a half mile of the eastern fire boundary, and without adequate drainage stabilization, sediment and ash could be transported into the creek, causing water quality degradation. The proposed aerial watershed seeding, if successful, would provide the necessary cover to reduce runoff and trap sediment.

The proposed aerial seeding of the drainages would provide better cover to protect the soil from direct raindrop impact, trap sediment and reduce runoff. This would slow channel incision and reduce sediment loads going into Huntington Creek.

The proposed drill seedings would occur within, and outside, the Juniper woodlands. The woodlands typically have high post fire runoff, because little cover remains after the trees burn, as there is little understory in these sites. Drill seeding with the Truax drill would cause slight surface disturbance, possibly damaging the biologic soil crusts where present, and causing some blowing dust, until the area is revegetated. Once the area is successfully revegetated, the risk of wind, sheet, and gully erosion would be reduced. Drilling in the nonwoodland sites would help stabilize soils where there is little vegetation remaining and biologic soil crusts are sparse. Successful seeding would reduce wind, sheet, and gully erosion in these areas and would provide vegetation that is good for stabilizing soil.

Closing the burned area to grazing by repairing or replacing the existing fences would allow vegetation to recover naturally in areas that are not seeded, which would reduce the risk of accelerated erosion. It would also aid revegetation of the seeded areas.

#### **4.1.7 VEGETATION**

Impacts to vegetation include the elimination of vegetation as a result of fire. Other impacts include covering unburned vegetation with ash, soil and dust. In the moderate burn intensity areas, seed within the soils have either been consumed or the intense heat has significantly reduced viability. In the low burn intensity areas, seed banks may have been impacted as well but to a much lesser degree. Where the plant root mass remains undamaged by the fire, regeneration is expected to occur. In the areas where the soil was abundantly covered with seed and other unburned litter, natural regeneration is expected to occur. In many areas throughout the burn areas, fire intensities were high enough to consume and kill many of the brush species, such as Wyoming and basin big sagebrush. Shrubs such as Wyoming and basin big sagebrush don't respond well to a fire, which reduces the potential for plant regeneration and viability of the native seed stock. Sagebrush would most likely recolonize the burned area over time in approximately 3 to 10 years. Juniper would be slow to re-invade and reach maturity within the burn area.

Loss of the shrub species in the plant community has destroyed the vegetation structure and altered the makeup of the wildlife habitat. Shrubs, particularly the browse species, provide high protein food during the winter for mule deer and forage for pronghorn antelope during the summer months. Another impact to wildlife from the loss of vegetation is the lack of cover for sage grouse and other birds. Vegetative cover is used for protection from the weather as well as for nesting.

The proposed seed mixtures provide a balance between stabilizing the site and still allow for any natural reestablishment of native grasses, forbs, and shrubs on the burned area where possible. Successful seeding of the burn area as proposed would reduce or eliminate impacts to vegetation resulting from the fire. Closing the burn area to grazing would allow for the natural reestablishment of the plant species, which would reduce the impacts to vegetation.

#### **4.1.8 VISUAL RESOURCES**

Both the fire itself and fire suppression activities have resulted in visual impacts to the area. The proposed action would improve the color, form and texture of visual resources in the area by increasing the vegetative diversity of the area through the establishment of a mix of perennial vegetation. This perennial vegetation would change the texture from uniform and fine to more patchy and coarse. Both form and color would be more varied with the different vegetative types. Once perennial vegetation is established, the project area would more closely approximate the color, form and texture of the native vegetation that existed previous to the fire. Revegetation efforts are designed to restore the area to a more characteristic landscape without attracting undue attention, which would help to alleviate the existing visual contrasts.

Stabilization and rehabilitation activities would attract attention but these would be temporary. The results from these activities would not dominate the view of the casual observer and would repeat the basic elements found in the predominant natural features of the landscape. Changes caused by stabilization and rehabilitation activities would



be subordinate to the existing landscape. Therefore, Class I and IV visual resource management objectives would be met.

#### **4.1.9 WATER QUALITY (SURFACE)**

Water quality in Huntington Creek could be affected in the short term by large runoff events originating from the burned area, which would carry ash and sediments. Ash typically moves into the water soon after the fire, either by wind or runoff, and raises the pH of water. Sediment laden runoff could cause degradation of water quality in Huntington Creek, and the impact could persist until the drainages are stabilized with enough vegetation to slow runoff and trap sediment. The seedings and grazing closure would allow suitable vegetation to establish that would stabilize soils and reduce sediment loads going into Huntington Creek.

#### **4.1.10 WILDLIFE AND SPECIAL STATUS SPECIES**

No adverse impacts have been identified as a result of the implementation of the proposed action.

The direct impacts to wildlife are the loss of habitat, including forage and cover. There are major concerns regarding the temporary to long term loss of the shrub component on mule deer and antelope seasonal use areas for the affected herds. The direct impacts to wildlife are the loss of habitat, including forage and cover. The temporary loss, and sometimes long term or permanent loss, of cover and forage on crucial big game range is a critical limiting factor which can result in die-offs for affected mule deer and antelope herds.

The area is at risk for large scale wildfires and habitat fragmentation that could jeopardize sage grouse habitat and populations. One primary concern for sage grouse are wildland fires that result in the complete loss of habitat over large areas. Although the suspected causes of sage grouse decline are numerous, loss of habitat, including loss by fire, ranks at the top of the list. As described in the impacts to migratory birds, the greatest threat to these sagebrush-dependent wildlife species is type conversion of sagebrush communities. The Wyoming big sagebrush vegetation type does not respond well to complete loss of shrubs over thousands of acres in block burn configurations. This is the scenario on areas observed on the burn, where only relatively small intact stands still exist. Wyoming big sagebrush seed banks usually do not persist after a given summer following previous fall through spring seed dispersal in unburned areas, let alone burned areas. Overall, big sagebrush natural recruitment would be slow from intact stands without rehabilitation. This slow recruitment is exacerbated by severe to extreme drought from 1999 to 2003 on the area. Maintaining complete, diverse sagebrush communities is integral to conservation efforts for these species. The proposed seed mixtures would help to provide cover and forage for wildlife, including sage grouse, perching birds, and mammals as well as that for prey species of Special Status Species raptors and bats. It would help to minimize establishment of noxious weeds, and exotic annual plants such as cheatgrass. The Proposed Action would also allow for any natural reestablishment of shrubs on the burned area.

Sagebrush is needed for forage and cover, and ecological site dynamics. Successful seeding and natural revegetation of the burned areas would reduce or eliminate the impacts to wildlife by restoring forage and cover.

#### **4.1.11 WILDERNESS STUDY AREAS**

##### Red Spring WSA treatments:

The portion south and east of the Crane Springs allotment fence would be seeded aurally with native grasses and shrubs in an irregular pattern. Drainages would be seeded with native grass species as part of emergency stabilization.

Noxious weeds would be treated along the boundary road to prevent further encroachment into the WSA.

Wilderness Study Area signs and fire rehabilitation signs would be placed on the boundary roads to inform people that they are within a WSA and to stay on existing routes.

##### Cedar Ridge WSA treatments:

Aerial seeding of native grasses and shrubs would occur mid-slope on Cedar Ridge. This area received moderate burn severity. Emergency stabilization seeding would also occur in drainages radiating out from Cedar Ridge to the

east due to moderate and high burn severity. Seeding patterns would be irregular to prevent the creation of unnatural lines on the landscape. Drill seeding would occur on the eastern part of the burn, between the two WSAs. No drill seeding would occur within the WSA boundaries.

Fences along the boundary and within the WSA would be repaired or replaced. Those fences on the east boundary of Cedar Ridge WSA would be repaired or replaced to a pre-existing condition or using all metal posts. Access to fencelines would be on existing roads along the eastern boundary of the WSA.

The fenceline located on top of Cedar Ridge is a grandfathered grazing use, in that it was present during the original wilderness inventory in 1979. The Nevada Statewide Wilderness Report, Volume II for the Elko District (Yellow Book), states that this three mile fenceline was present and was one of two bladed fencelines within the WSA. Project files document the fence as being present since 1956. The fenceline would be replaced where needed to keep livestock in their respective allotments (east or west of the ridgeline). As stated in the WSA handbook (H-8550-1), motorized vehicles can be used to build or maintain structures authorized under the handbook. This fence is one of those authorized replacements; therefore management is allowing the use of up to 2 quad-type OHVs to haul materials to the ridgeline in order to replace the fence. The OHVs would only drive on one route and the tracks would be raked out. There is not much vegetation on the ridgeline so little if any vegetation disturbance would take place. The Wilderness Specialist would do a field visit to establish the fenceline path and the driving route.

The surveillance schedule for Red Spring and Cedar Ridge WSA would continue on a monthly basis weather permitting, with increased visits by other specialists monitoring rehabilitation of the fire area.

Any impairment the WSA would be rehabilitated according to the IMP.

## **4.2 ALTERNATIVE TO THE PROPOSED ACTION**

### **4.2.1 NO ACTION ALTERNATIVE**

Implementation of the No Action Alternative would result in the denial of the proposed action. Impacts resulting from the No Action Alternative would include the spread of annuals, such as cheatgrass, and noxious weeds, such as hoary cress, Scotch thistle, and knapweed. These species are already present and would continue to increase in density. The burned area would not be closed to grazing, which would not allow for undamaged plant species time to reestablish. It would also allow for other nonnative invasive plant and noxious weed species that are transported on vehicles to gain a niche to become established. A major concern is that nonnative invasive species and noxious weeds that currently are not present in the area may appear in the burned area and spread to adjacent land. Nonnative invasive plant species such as cheatgrass would expand in acreage and increase in density, which could create a type conversion of the plant community from a diverse plant community to a monoculture. In light of increased fire activity and the competitive nature of cheatgrass, the shrub and woodland components would likely be slow to reestablish, if they were to recover at all. Once a site becomes dominated by cheatgrass, it is difficult and expensive to alter the vegetation to a perennial grass dominated community. The identified adverse impacts to the resources would still be applicable. Until the establishment of a shrub and woodland components into the vegetation community, wildlife would continue to lack a major component of the habitat.

Localized blowing ash and soil would occur until the burned soil surface receives enough soil moisture to prevent it from blowing, a physical soil crust forms, or vegetation is reestablished. Wind erosion and blowing ash can increase Particulate Matter #10 (PM 10) emissions, decreasing visibility in the local area. Due to the limited size of the fire, the PM 10 air quality standard should not be exceeded, nor should an impact occur to the Class I area at Jarbidge.

Soils that had low burn severity would have accelerated sheet, wind, and water erosion in the short term until the vegetation naturally recovers, or the soil forms a crust. Soils in the juniper woodland areas have a well developed biologic soil crust and microtopography which would allow adequate infiltration from low intensity precipitation events. However, in areas where the juniper burned, and there is little or no vegetative cover remaining, accelerated sheet and gully erosion would occur for many years until the burned area is naturally revegetated. The impact would be greatest from high intensity precipitation events.

Areas that had moderate or high burn severity are at risk of being revegetated with cheatgrass and other undesirable species. These species do not provide adequate soil stabilization and would experience long term accelerated erosion. The risk of large future fires would also increase.

Water quality in Huntington Creek could be affected in the short term by large runoff events originating from the burned area, which would carry ash and sediments. Ash typically moves into the water soon after the fire, either by wind or runoff, and raises the pH of water. Sediment laden runoff could cause degradation of water quality in Huntington Creek, and the impact could persist for several years. If more annual and invasive, nonnative species occupy the burn, less soil stabilization would occur and soils would experience permanent higher runoff rates, and sheet erosion.

### **4.3 RESIDUAL IMPACTS**

Residual impacts resulting from the proposed action would include the spread of annuals, such as cheatgrass, nonnative invasive plant and noxious weed species. In the event that cheatgrass, nonnative invasive plant species or noxious weeds would increase in density to the point of eradicating the native vegetation, the AUMs for the Hansel Allotment Rodgers Field and the Crane Springs Allotment could be reduced or lost. Soil erosion could increase, which would increase sedimentation to Huntington Creek.

### **4.4 CUMULATIVE IMPACTS**

All resource values have been evaluated for cumulative impacts. Cumulative effects are the environmental impacts resulting from the incremental impacts of a proposed action, when added to other past, present, and reasonably foreseeable future actions, both federal and nonfederal. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The emergency stabilization and rehabilitation treatments for the Sneekie Fire, as proposed in the stabilization and rehabilitation plans, do not result in an intensity of impact (i.e. major ground disturbance) that would cumulatively constitute a significant impact on the quality of the environment. Cumulative impacts for proposed emergency stabilization and rehabilitation treatments are discussed in the programmatic FY 2000 Normal Fire Rehabilitation Plan Environmental Assessment (NFRPEA) BLM/EK/PL-2000/037, which is available for review at the BLM, Elko Field Office. A three year reasonably foreseeable timeframe was used since this is the maximum timeframe for the implementation and monitoring of emergency stabilization and rehabilitation plans.

The geographic area included in the cumulative impacts assessment is the location of the Sneekie Fire for the soil and vegetation resources, and the Hansel Allotment Rodgers Field and the Crane Springs Allotment for livestock grazing. The geographic area for wildlife is the Nevada Division Of Wildlife (NDOW) Management Area Six. The land uses evaluated that may create cumulative impacts to the resource affected by the Sneekie Fire, include livestock grazing, mineral exploration, recreation and fire. Livestock grazing, recreation, and fire have occurred for several years in the past to the present, and are expected to occur in the future. The Sneekie Fire would be closed to livestock grazing for a minimum of two growing seasons or until vegetation establishment objectives are met.

Throughout NDOW Management Area Six wildland fires have occurred ranging in size from small (less than 40 acres) to large catastrophic fires that consume vast amounts of land. Large portions of the wildfires that have occurred in western Elko County from 1980 to 2005 within 20 miles of the Sneekie Fire perimeter have been seeded with Wyoming and big sagebrush and at the present have various degrees of reestablishment. This has helped provide cover and forage for approximately 250 wildlife species, including mule deer, which utilize sagebrush habitat types on a seasonal or yearlong basis. However, the Sneekie Fire has exacerbated the present limited availability of shrub cover on a collective intermediate and winter range and migration corridors for the affected mule deer herd. The availability of adequate cover and forage provided by shrubs is presently considered to be a limiting factor for the affected mule deer herds when considering the wildfire affected portions of winter, intermediate range and migration corridors on the adjoining 843 acre Cedar Fire in 1998; 15,699 acre Dido Fire in 1999; 199,176 acre Saddler Fire in 1999; 3,668 acre Basin Fire in 2000; and 3,255 acre Crispix Fire in 2005. These wildfire burn areas have prior approved emergency stabilization and rehabilitation plans that included big sagebrush seeding efforts that presently provide limited cover and forage as part of mule deer intermediate range and migration corridors.

Although the winter range area for mule deer was approximately fifty percent of the overall acreage of the Sneekie Fire, there are cumulative effects on the affected mule deer herds because of fires since 1980 within Management Area Six. Mule deer numbers are down dramatically from historic numbers for the affected mule deer herd area. NDOW noted in their 2004-05 Big Game Status report that, "The carrying capacity of the winter range is now estimated at between 8,000 to 10,000 deer. This is... 65 percent less than it was 35 to 40 years ago."

Greater sage grouse populations would continue to decline without reestablishment of the sagebrush component. The stabilization and rehabilitation actions taking place on the various fires throughout the area are helping to slow this population loss, but the fact that the fires have removed sagebrush in vast adjacent areas has negatively affected sage grouse and may continue to do so into the future.

Impacts to wildlife include, but are not limited, to the loss or alteration of forage and cover. Wildlife may be displaced and avoid areas once inhabited due to the loss or alteration of forage and cover, migration routes may shift. Due to lack of food, especially over the winter months, starvation may occur.

Within the fire perimeter impacts to vegetation and soils have resulted in the past and present from livestock grazing, mineral exploration, recreation, and fire. Surface disturbance within and adjacent to the burn area have been created by the installation of fences and range improvements that are associated with livestock grazing. Mineral exploration has occurred over the past several years within and adjacent to the fire perimeter until the establishment of the current IMP for WSAs. Surface disturbance created by past mineral exploration activities included construction of roads, drill sites, and trenches. Reclamation of this surface disturbance consisted of recontouring and seeding. Since the implementation of the IMP for WSAs, mineral exploration has ceased within the boundaries of the WSAs. Currently, no mineral activity exists on the lands adjacent to and within the burned area. Roads have been created within and adjacent to the burn area, but outside of the WSAs, that are associated with various activities such as, but not limited to, access for range improvements, mineral exploration, recreation, and fire suppression activities. Dozerlines have been created and used in the fire suppression tactics outside the WSAs. Soil disturbing activities can cause changes to soil characteristics, such as pulverization or mixing of soil layers, removal of soil either by wind or water erosion, removal or destruction of biologic soil crusts, and composition changes when soils become hydrophobic as a result of heat from fires. Changes in the soil characteristics can result in changes to vegetation types and communities. Cumulative impacts to soils may be short term, lasting until soil crusts or vegetation reestablishment occurs or long term due to physical changes and natural elements, such as weathering and erosion.

Cumulative impacts to vegetation can include changes in vegetation types and communities. Establishment of nonnative invasive plant or noxious weed species or annuals, such as cheatgrass, can change the characteristics of a vegetation type or community by replacing and eliminating native species from the plant community. Seedings may or may not change the characteristics of the vegetation type or community dependant upon the plant species included in the seed mixture that is being planted. Seedings may be used to reestablish native species that have been lost as a result of fire or introduce new species, native or nonnative, to the vegetation type in order to compete with nonnative invasive plant or noxious weed species in order to help restore a productive, diverse and sustainable vegetation community. Changes in vegetation type and plant communities can result in other impacts such as the loss of vegetation for livestock grazing; loss or alteration of habitat, including forage and cover, for wildlife; and the lack of plant diversity and age classification, which may also increase due to wildland fires.

Considering the period from the early 1980s to 2005, several wildland fires have occurred in the vicinity of the Sneekie Fire, throughout the affected Hansel and Crane Springs Allotments and within the NDOW Management Area Six. These fires range in size from less than 40 acres to 199,176 acres that burned during the 1999 Saddler Fire. Fire history illustrates that within a five mile radius of the Sneekie Fire approximately six fires have occurred since 1980. According to the 2004 Fire Management Amendment to the Elko and Wells Resource Management Plans, the Elko District has experienced large fires over the last 5 years (1999-2003) with 1999 being the most active year. The 2006 fire season may increase the cumulative impacts to the various resources dependant upon the amount of land burned. As of September 10, 2006, approximately 946,363 acres of rangeland, primarily on public lands, have been affected by wildland fires on the Elko District in 2006. Annual changes in fire occurrence consist of factors such as fuel loads, change in vegetation, and climatic conditions. Wildland fire ignitions are primarily the result of lightning strikes but may also be caused by humans. Wildland fire may impact soils dependant upon the temperatures of the fire. Soils may burn or become hydrophobic. The primary resource impacted by wildland fires

is vegetation. Impacts to vegetation are also dependant upon the temperatures of the fire, which are relative to several factors such as fuel types. Impacts may include, but are not limited to, changes in successional stages of vegetation communities, alteration of habitats for wildlife, and modification of fuel loading.

#### **4.5 MONITORING**

Conduct monitoring on the reseeded each year following treatment (2007-2009) to determine the success of revegetation efforts. Specific monitoring method(s) used would depend on the establishment objectives developed. For example, if the establishment objective is three seeded plants firmly rooted per square meter, utilize a modified “freqdens” techniques or similar BLM established methods for seeded areas. If the establishment objective is herbaceous production equal to or greater than herbaceous production of a comparable unburned range site, use production/site composition methods for areas managed for natural release. A resource specialist from the Elko Field Office would provide program oversight for this specification.

Post-treatment monitoring studies would be conducted to evaluate the effectiveness of the proposed treatments or to determine if additional treatments are needed, and to determine the time frame for re-opening lands for grazing. The results of the monitoring would be documented in the project file at the BLM, Elko Field Office.

### **CHAPTER 5 CONSULTATION AND COORDINATION**

#### **5.1 LIST OF PREPARERS**

|                  |  |
|------------------|--|
| Janice Stadelman | NEPA Coordination  |
| Tom Warren       | Fire Stabilization & Rehabilitation Manager, Project Lead  |
| James Harmening  | Operations/Specifications                                  |
| Carol Marchio    | Soils, Water, Air  |
| Mark Coca        | Nonnative Invasive Weed Species                            |
| Bill Fawcett     | Cultural Resources   |
| Justin Rodgers   | Vegetation, Livestock Grazing                              |
| Bruce Thompson   | Livestock Grazing  |
| Ken Wilkinson    | Migratory Birds, T&E, Wildlife                             |
| Tamara Hawthorne | Wilderness, Visual Resources, Recreation, Resource Advisor |
| Gerald Dixon     | Native American Consultation                               |

#### **5.2 PERSONS, GROUPS, OR AGENCIES CONSULTED**

##### Livestock Grazing Permittees

Pete Paris, Paris Livestock  
Vince Garcia, South Fork Livestock Partnership

##### Nevada Division of Wildlife, Elko Nevada

Steve Foree, Senior Habitat Biologist  
Ken Gray, Wildlife Biologist

##### Nevada Division of Forestry

Dennis Walker

#### **5.3 NATIVE AMERICAN CONSULTATION**

No known Traditional Cultural Properties or other areas having traditional or religious significance are present within the Sneekie Fire. Most often, the Tribes support the emergency stabilization and rehabilitation efforts. However, they are concerned that the fires open up areas for looters and vandalism of cultural resource sites, since artifacts are exposed and easier to see on a black landscape. Monitoring of cultural sites within the burned areas should be done on a regular basis for their protection.

By law, policy and executive order, BLM is required to undertake a good-faith consultation process with regional Native American tribal and band governments prior to projects that might affect Native American sacred areas, Traditional Cultural Properties or other traditional values. Native Americans would be consulted as appropriate prior to any ground disturbing activities or herbicide treatments.

To date, no known impacts have been identified or would occur to the Traditional Cultural Properties or other areas having traditional or religious significance as a result of the implementation of the proposed action. Native American Consultation is ongoing. When the BLM obtains information identifying Traditional Cultural Properties or other areas having traditional or religious significance, then the BLM would insure that reasonable measures are taken to avoid impacts to these areas of concern to Native Americans.

## **CHAPTER 6 REFERENCES**

Bureau of Land Management, 1987. Elko Resource Area Draft Resource Management Plan and Environmental Impact Statement. US Department of the Interior, Bureau of Land Management, Elko District Office.

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Bureau of Land Management, 2006. Draft Bureau of Land Management Emergency Stabilization and Rehabilitation Plan Formats. US Department of the Interior, Bureau of Land Management.

U.S.D.A. Natural Resources Conservation Service, 1997. Soil Survey of Elko County, Nevada, Central Part.

W.R.C.C. Western Regional Climate Center <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?nvcont>

**APPENDIX A**  
**Migratory Birds by Habitat Type**  
**Nevada Partners in Flight Bird Conservation Plan Elko District Ecotypes**

| <u>Sagebrush</u>   | <u>Pinyon/Juniper</u>  | <u>Montane Shrub</u>  | <u>Cliffs and Talus</u>  |
|--|--|---|--|
| <u>Obligates:</u><br>Sage Grouse<br><br><u>Other:</u><br>Black Rosy Finch<br>Ferruginous Hawk<br>Gray Flycatcher<br>Loggerhead Shrike<br>Vesper Sparrow<br>Prairie Falcon<br>Sage Sparrow<br>Sage Thrasher<br>Swainson's Hawk<br>Burrowing Owl<br>Calliope Hummingbird<br><br><u>Other associated species:</u><br>Brewer's Sparrow<br>Western Meadowlark<br>Black-throated Sparrow<br>Lark Sparrow<br>Green-tailed Towhee<br>Brewer's Blackbird<br>Horned Lark | <u>Obligates:</u><br>Pinyon Jay<br>Gray Vireo<br><br><u>Other:</u><br>Ferruginous Hawk<br>Gray Flycatcher<br>Juniper Titmouse<br>Mountain Bluebird<br>Western Bluebird<br>Virginia's Warbler<br>Black-throated Gray Warbler<br>Scott's Oriole<br><br><u>Other Associated Species</u><br>Mountain Quail<br>Scrub Jay<br>Black-billed Magpie<br>Clark's Nutcracker<br>Mountain Chickadee | <u>Obligates:</u><br>None<br><br><u>Other:</u><br>Black Rosy Finch<br>Black-throated Gray Warbler<br>Calliope Hummingbird<br>Cooper's Hawk<br>Loggerhead Shrike<br>Blue Grosbeak<br>Vesper Sparrow<br>MacGillivray's Warbler<br>Orange-crowned Warbler<br>Swainson's Hawk<br>Western Bluebird | <u>Obligates:</u><br>Prairie Falcon<br>Black Rosy Finch<br><br><u>Other:</u><br>Ferruginous Hawk<br><br><u>Other Associated Species</u><br>Golden Eagle<br>White-throated Swift<br>Say's Phoebe<br>Common Raven<br>Cliff Swallow<br>Violet-green Swallow<br>Canyon Wren<br>Rock Wren |

\* "Obligates" are species that are found only in the habitat type described in the section. [Habitat needed during life cycle even though a significant portion of their life cycle is supported by other habitat types]

\*\* "Other" is species that can be found in the habitat type described the Nevada Partners in Flight Bird Conservation Plan.

**APPENDIX B**  
**Wildlife Species List**

Lower Sagebrush/Grassland Steppe, Northeastern Nevada

[Note: This is a partial list emphasizing upland habitat areas]

**Birds**

|                          |                                  |
|--------------------------|----------------------------------|
| Turkey Vulture           | <i>Cathartes aura</i>            |
| Bald Eagle               | <i>Haliaeetus leucocephalus</i>  |
| Northern Harrier         | <i>Circus cyaneus</i>            |
| Swainson's Hawk          | <i>Buteo swainsoni</i>           |
| Red-tailed Hawk          | <i>Buteo jamaicensis</i>         |
| Ferruginous Hawk         | <i>Buteo regalis</i>             |
| Rough-legged Hawk        | <i>Buteo lagopus</i>             |
| Golden Eagle             | <i>Aquila chrysaetos</i>         |
| American Kestrel         | <i>Falco sparverius</i>          |
| Merlin                   | <i>Falco columbarius</i>         |
| Prairie Falcon           | <i>Falco mexicanus</i>           |
| Cray Partridge           | <i>Perdix perdix</i>             |
| Chukar                   | <i>Alectoris chukar</i>          |
| Sage Grouse              | <i>Centrocercus urophasianus</i> |
| Mourning Dove            | <i>Zenaidura macroura</i>        |
| Great Horned Owl         | <i>Bubo virginianus</i>          |
| Burrowing Owl            | <i>Athene cunicularia</i>        |
| Short-eared Owl          | <i>Asio flammeus</i>             |
| Common Nighthawk         | <i>Chordeiles minor</i>          |
| Broad-tailed Hummingbird | <i>Selasphorus platycercus</i>   |
| Northern Flicker         | <i>Colaptes auratus</i>          |
| Gray Flycatcher          | <i>Epidonax wrightii</i>         |
| Ash-throated Flycatcher  | <i>Myiarchus cinerascens</i>     |
| Say's Phoebe             | <i>Sayornis saya</i>             |
| Western Kingbird         | <i>Tyrannus verticalis</i>       |
| Horned Lark              | <i>Eremophila alpestris</i>      |
| Barn Swallow             | <i>Hirundo rustica</i>           |
| Black-billed Magpie      | <i>Pica pica</i>                 |
| American Crow            | <i>Corvus brachyrhynchos</i>     |
| Common Raven             | <i>Corvus corax</i>              |
| Rock Wren                | <i>Salpinctes obsoletus</i>      |
| Mountain Bluebird        | <i>Sialia currucoides</i>        |
| American Robin           | <i>Turdus migratorius</i>        |
| Sage Thrasher            | <i>Oreoscoptes montanus</i>      |
| Loggerhead Shrike        | <i>Lanius ludovicianus</i>       |
| Northern Shrike          | <i>Lanius excubitor</i>          |
| European Starling        | <i>Sturnus vulgaris</i>          |
| Brewer's Sparrow         | <i>Poocetes gramineus</i>        |
| Vesper Sparrow           | <i>Chondestes grammacus</i>      |
| Lark Sparrow             | <i>Amphispiza belli</i>          |
| White-crowned Sparrow    | <i>Zonotrichia leucophrys</i>    |
| Lapland Longspur         | <i>Calcarius lapponicus</i>      |
| Red-winged Blackbird     | <i>Agelaius phoeniceus</i>       |
| Western Meadowlark       | <i>Sturnella neglecta</i>        |
| Brewer's Blackbird       | <i>Euphagus cyanocephalus</i>    |
| Brown-headed Cowbird     | <i>Molothrus ater</i>            |
| Black Rosy Finch         | <i>Leucosticte atrata</i>        |
| Gray-crowned Rosy Finch  | <i>Leucosticte tephrocotis</i>   |
| House Sparrow            | <i>Passer domesticus</i>         |

**Mammals**

|                             |                                   |
|-----------------------------|-----------------------------------|
| Little Brown Bat            | <i>Myotis lucifugus</i>           |
| Long-eared Myotis           | <i>Myotis evotis</i>              |
| Long-legged Myotis          | <i>Myotis volans</i>              |
| Small-footed Myotis         | <i>Myotis ciliolabrum</i>         |
| Silver-haired Bat           | <i>Lasionycteris noctivagans</i>  |
| Western Pipistrelle         | <i>Pipistrellus hesperus</i>      |
| Big Brown Bat               | <i>Eptesicus fuscus</i>           |
| Townsend's Big-eared Bat    | <i>Plecotus townsendii</i>        |
| Brazilian Free-tailed Bat   | <i>Tadarida brasiliensis</i>      |
| Black-tailed Jackrabbit     | <i>Lepus californicus</i>         |
| Mountain Cottontail         | <i>Sylvilagus nuttallii</i>       |
| Pygmy Rabbit                | <i>Sylvilagus idahoensis</i>      |
| Townsend's Ground Squirrel  | <i>Spermophilus townsendii</i>    |
| Belding Ground Squirrel     | <i>Spermophilus beIdingi</i>      |
| Least Chipmunk              | <i>Tamias minimus</i>             |
| Botta's Pocket Gopher       | <i>Thomomys bottae</i>            |
| Northern Pocket Gopher      | <i>Thomomys talpoides</i>         |
| Little Pocket Mouse         | <i>Perognathus longimembris</i>   |
| Great Basin Pocket Mouse    | <i>Perognathus parvus</i>         |
| Dark Kangaroo Mouse         | <i>Microdipodops megacephalus</i> |
| Ord Kangaroo Rat            | <i>Dipodomys ordii</i>            |
| Chisel-toothed Kangaroo Rat | <i>Dipodomys microps</i>          |
| Deer Mouse                  | <i>Peromyscus maniculatus</i>     |
| Northern Grasshopper Mouse  | <i>Onychomys leucogaster</i>      |
| Desert Woodrat              | <i>Neotoma lepida</i>             |
| Sagebrush Vole              | <i>Lemmyscus curtatus</i>         |
| House Mouse                 | <i>Mus musculus</i>               |
| Kit Fox                     | <i>Vulpes macrotis</i>            |
| Coyote                      | <i>Canis latrans</i>              |
| Long-tailed Weasel          | <i>Mustela frenata</i>            |
| Badger                      | <i>Taxidea taxus</i>              |
| Striped Skunk               | <i>Mephitis mephitis</i>          |
| Mountain Lion               | <i>Felis concolor</i>             |
| Bobcat                      | <i>Lynx rufus</i>                 |
| Mule Deer                   | <i>Odocoileus hemionus</i>        |
| Pronghorn                   | <i>Antilocapra americana</i>      |

**Reptiles**

|                           |                                |
|---------------------------|--------------------------------|
| Western Skink             | <i>Eumeces skiltonianus</i>    |
| Western Whiptail          | <i>Cnemidophorus tigris</i>    |
| Desert Collared Lizard    | <i>Crotaphytus insularis</i>   |
| Long-nosed Leopard Lizard | <i>Gambelia wislizenii</i>     |
| Desert Spiny Lizard       | <i>Sceloporus magister</i>     |
| Sagebrush Lizard          | <i>Sceloporus graciosus</i>    |
| Western Fence Lizard      | <i>Sceloporus occidentalis</i> |
| Side-blotched Lizard      | <i>Uta stansburiana</i>        |
| Desert Horned Lizard      | <i>Phrynosoma platyrhinos</i>  |
| Short-horned Lizard       | <i>Phrynosoma douglassii</i>   |
| Long-nosed Snake          | <i>Rhinocheilus lecontei</i>   |
| Ground Snake              | <i>Sonora semiannulata</i>     |
| Night Snake               | <i>Hypsiglena torquata</i>     |
| Gopher Snake              | <i>Pituophis melanoleucus</i>  |
| Racer                     | <i>Coluber constrictor</i>     |
| Striped Whipsnake         | <i>Masticophis taeniatus</i>   |
| Western Rattlesnake       | <i>Crotalus viridis</i>        |



**APPENDIX C**  
**SENSITIVE SPECIES LISTING**  
**BLM Special Status Species**

| COMMON NAME   | SCIENTIFIC NAME                  |
|---|----------------------------------|
| Federally Endangered Species                        |                                  |
| (None)  | (None)                           |
| Federally Threatened Species                        |                                  |
| Bald Eagle  | <i>Haliaeetus leucocephalus</i>  |
| Federally Proposed Threatened or Endangered Species |                                  |
| (none)  | (none)                           |
| Federal Candidate Species                           |                                  |
| (none)  | (none)                           |
| Nevada BLM Sensitive Species                        |                                  |
| Birds   |                                  |
| Golden Eagle  | <i>Aquila chrysaetos</i>         |
| Western Burrowing Owl                               | <i>Athene cucularia hypugea</i>  |
| Ferruginous Hawk                                    | <i>Buteo regalis</i>             |
| Swainson's Hawk                                     | <i>Buteo swainsoni</i>           |
| Northern Goshawk                                    | <i>Accipiter gentiles</i>        |
| Greater Sage Grouse                                 | <i>Centrocercus urophasianus</i> |
| American Peregrine falcon                           | <i>Falco peregrinus anatum</i>   |
| Loggerhead shrike                                   | <i>Lanius ludovicianus</i>       |
| Vesper sparrow                                      | <i>Poocetes gramineus</i>        |
| Short-eared owl                                     | <i>Asio flammeus</i>             |
| Long-eared owl                                      | <i>Asio otus</i>                 |
| Prairie falcon                                      | <i>Falco mexicanus</i>           |
| Black-rosy finch                                    | <i>Leucosticte atrata</i>        |
| Juniper titmouse                                    | <i>Baeolophus griseus</i>        |

| Nevada BLM Sensitive Species<br>(cont.) |                                       |
|---|---------------------------------------|
| Mammals                                 |                                       |
| Pygmy rabbit                            | <i>Brachylagus idahoensis</i>         |
| Spotted bat                             | <i>Euderma maculatum</i>              |
| Small-footed myotis                     | <i>Myotis ciliolabrum</i>             |
| Long-eared myotis                       | <i>Myotis evotis</i>                  |
| Fringed myotis                          | <i>Myotis thysanodes</i>              |
| Long-legged myotis                      | <i>Myotis volans</i>                  |
| Yuma myotis                             | <i>Myotis yumanensis</i>              |
| Pacific Townsend's big-eared bat        | <i>Plecotis townsendii townsendii</i> |
| <b>Invertebrates</b>                    |                                       |
| Mattoni's blue butterfly                | <i>Euphilotes rita mattoni</i>        |