

**BUREAU OF LAND MANAGEMENT
ELKO FIELD OFFICE
BURNED AREA EMERGENCY REHABILITATION TEAM**

August 2001 Fire Complex

VEGETATION AND RANGE RESOURCE DAMAGE ASSESSMENT

I. OBJECTIVES

- Re-vegetate the burned areas to prevent soil loss due to erosion.
- Protect and restore riparian areas.
- Provide forage and cover for wildlife and livestock.
- Restore the vigor of the burned rangelands to provide for the needs of all users.
- Promote the establishment of healthy native plant ecosystems.

II. ISSUES

- Short and long-term fire impacts to plant communities and vegetative resources on lands administered by the Bureau of Land Management, Elko Field Office
- Evaluate and assess fire and suppression impacts to vegetative resources and identify values at risk
- Fire and suppression impacts to rangeland improvement projects within the burned area.
- Management strategies which provide for the natural recovery and revegetation of impacted areas. including the establishment of rangeland seeding to increase the effectiveness of reducing future wildland fire size and cost.
- Determine rehabilitation and monitoring needs supported by specifications to aid in vegetative recovery and soil stabilization
- Protection and enhancement of other resource values including site productivity, wildlife habitat, riparian/stream habitat, vegetative resources, watershed stability, and potential impacts to wild horse herd management areas.

III. OBSERVATIONS

The fires within the Bureau of Land Management's Elko Field Office occurred between the dates of July 25 and August 19, 2001. Thirteen (13) individual or multiple (complex) fires encompass a total of 259,165 acres that have impacted private, and federal lands. This assessment will attempt to broadly describe plant communities impacted by these fires and the influence that fire will have in the short and long-term to vegetative species. However, due to the extensive geographical area they encompass a more detailed description will not be feasible. Detailed files have been left with and are being maintained by the local agencies that contain much more site specific information than can be encapsulated by this report. Detailed allotment fence line maps, vegetative maps, soil type descriptions, field notes, rehabilitation cost documentation etc. have been utilized to provide the rehabilitation recommendations contained within this report.

Analysis work by the Elko BAER Team has been done on a very broad-scale approach, however impacts to structural range improvements, and vegetative resources have been looked at and analyzed on a landscape and allotment level basis for each fire. Findings and recommendations contained within this assessment are based upon information obtained from field reviews, and personal interviews with private ranchers, county officials, federal land managers, and local technical staff.

Reconnaissance of impacted areas included aerial and ground survey methods. This assessment will attempt to capture the concerns expressed by the BLM, County Supervisors, Extension Service, Natural Resources Conservation Service staff, state agencies, and private land owners for the future management of these lands. Resource Advisor Reports completed for each fire summarize the known damage to vegetative resources and structural improvements while this writeup will synapsize revegetation processes and future monitoring criteria and will outline management considerations for recovery of the vegetative resources.

A. Background Information

The August 2001 Fire Complex fires which were ignited by lightning engulfed extensive areas of range and desert mountain lands in the north central and eastern portion of the Elko Field Office area of administration. Burning conditions were generally characterized as severe with extreme observed fire intensity and rapid rates of spread.

Vegetative resources and structural range improvements were extensively impacted by these fires. As detailed later in this report, fire impacts ranged from partial to total loss of understory and shrub species, with varying degrees of losses noted in overstory species, and in many cases, total consumption of all vegetative species.

Resource concerns expressed by federal, state, county, and private sources concerning vegetative resources include: vegetative loss and the short and long-term impacts to wildlife habitat, wild horse Herd Management Areas (HMA's), short and long-term impacts to the forage base in northern Nevada rangelands,

impacts to structural range improvements, watershed quality, noxious weed spread, site productivity, aesthetics, impacts to threatened or endangered plant and animal species, and potential long term affects to the ecological integrity of desert ecosystems.

Within the Elko Field Office, 13 fires were reviewed to determine fire suppression impacts and fire effects on vegetative resources. In all cases, burn intensities varied across the landscape with most fires consuming a significant portion of palatable species for both livestock and wildlife on public land allotments. The 13 fires within this plan are:

Bailey	North Delano
Buffalo	Ranch
Coyote	Rodeo
Dee Gold	Sheep
Dunphy	Stag
Hot Lakes	Tabor Creek
Mile Marker 367	

B. Reconnaissance Method

Resource contacts at the Field Office were contacted on a daily basis to help collect data for the assessments and specifications. Upon consultation with local staff, and after reviewing a general map of the burned areas within the fire perimeter, a field survey methodology was developed and inventory procedures established in order to conduct a timely review of each fire area. In order to better facilitate the timely collection of data, the vegetation section was broken down into four divisions: range vegetation analysis; revegetation assessment and development; structural improvement inventory and mapping; noxious weed assessments. Direct fire impacts to vegetation resources and noxious weed populations have been documented on a broad scale for all fire areas.

Field visits were conducted on many burned areas to better assess damages to vegetative resources and structural range improvements although only a small portion of overall burned areas were intensively sampled. Most of the fires included a field visit with an interdisciplinary team consisting of personnel representing the Elko Field Office of the Bureau of Land Management, the Nevada Division of Wildlife, and the affected livestock permittees. Additional analysis was conducted using Geographic Information System (GIS) data layers of pre-fire vegetative inventories, soil survey information, and allotment data file information. Cross references were made between these data sets with field and aerial reconnaissance observations to determine fire effects on vegetative resources.

Resource advisor reports were used to help determine vegetative losses and suppression impacts, requirements for rehabilitation efforts, and long-term rehabilitation needs. In addition analysis of plant associations impacted by

previous fires adjacent to current fire areas to determine fire effects to plant community ecological integrity of native grass and shrub species.

A literature review was conducted to obtain baseline data on soils, hydrologic processes, plant communities and the dynamics of vegetative species within the burned area watersheds. Many well written documents exist that detail historic and present day vegetation descriptions. Baseline information from these documents have been included to provide the reader with a better understanding of vegetative community structure and provide insight into the fragility of these watersheds.

C. Findings

Plant communities within the fire area vary across the landscape based upon slope, aspect, and soil type. Generally speaking, areas on north and east facing slopes support plant communities that have conditions favorable for moderate to rapid vegetative recovery. However, on south and west facing slopes and on alkali soil in the valley bottoms, vegetative cover is scattered and vegetative recovery is slow due to hot, dry climate and shallow, droughty soil conditions.

Vegetation resources provide valuable wildlife habitat, livestock forage and watershed protection. Past land management practices (i.e. mining and grazing activities), have shaped plant community composition in the northern Nevada region. The effects of these fires will have both positive and negative short and long-term influences on these communities and in the natural regeneration processes of the impacted watersheds.

1. Vegetation

Vegetation resources were directly impacted by the August 2001 Fires and by suppression tactics utilized to control the fires. Documented impacts to vegetation resulted from:

- a) Construction of dozer lines, safety zones and hand lines on previously undisturbed sites.
- b) Impacts to native tree, shrub, and grass species during line construction and suppression mop-up activities.
- c) Reduction of fuels and vegetation ahead of the fire-front by night-time dozer operations and fire suppression tactics.

d) Vegetation losses due to fire intensity.

In the high burn intensity areas, seed within the soils have either been consumed or viability significantly reduced by the intense heat. In moderate burn intensity areas, seed banks have been impacted as well, but some natural regeneration will occur. On low intensity burn areas, seed banks within the soil were not severely impacted by the fire.

Within the low to moderate burn intensity areas, a faster moving fire did not injure all of the root crowns of native grass species. In many of the low to moderate burn intensity areas, root crowns were still visible and regrowth will occur during the next growing season.

In many areas, however, fire intensities were high enough to consume and kill many brush species such as Wyoming big sagebrush, Basin big sagebrush, and mountain big sagebrush. Loss of these shrub species has altered the makeup of some critical wildlife habitat areas and is further discussed within the Wildlife Assessment.

Most of these fires resulted in impacts to riparian/stream habitat and aspen stands. Loss of these vegetation types has altered the makeup of some critical wildlife habitat including habitat for Lahontan cutthroat trout, a federally listed threatened species. Impacts to riparian resources are summarized below (only those fires with riparian resources issues are included):

Fire Name	Riparian Habitat Description*	Fire Impacts
Bailey	Narrow herbaceous riparian zone along perennial stream	Minimal - riparian zone essentially intact and unaffected by fire.
Buffalo	Extensive narrow willow and aspen corridor along perennial stream	Severe impacts to lower reaches of riparian community. Upper riparian community impacted moderate to severe. Headwaters impacted severely.
Coyote	Extensive willow and aspen corridors along perennial streams and on north slopes	Severe impacts to 70-80% of riparian community. North slope aspen and streamside riparian zone completely burned in many areas.
Hot Lakes	Narrow to moderately wide herbaceous riparian zone along perennial stream. Scattered willow. Isolated seeps and springs.	Minimal - although habitat conditions are poor, riparian zone is mostly intact and largely unaffected by fire.
Ranch	Narrow riparian zone with willow and aspen.	Most of the creek was not impacted and only a small portion was impacted severely (and the impacts were on private lands).
Sheep	Fairly narrow willow/herbaceous zone along small perennial drainage, isolated seeps and springs	Moderate to severe - 70-80% of streamside willow and herbaceous riparian burned; minimal impact to seeps and springs

Fire Name	Riparian Habitat Description*	Fire Impacts
Stag	Narrow to moderately wide riparian zone along perennial and intermittent streams varying from sedge/willow to extensive willow/aspen communities	Variable; from light to severe depending on fire behavior, condition of riparian zone, and soil moisture content at time of fire
Tabor Creek	Narrow willow/ herbaceous riparian corridor along perennial stream on private lands; isolated seeps and springs on public lands	Moderate to severe on willow/herbaceous riparian zone; minimal impacts to seeps and springs

*Most impacted riparian resources occur on a mixture of public and private lands.

Impacts to resources associated with riparian plant communities are further discussed in the Threatened and Endangered Species, Fisheries, Watershed, and Forestry Resource Damage Assessments.

These fires have also set back the successional processes of many mid to late seral plant communities and provided a window of opportunity for the further encroachment of non-native invasive species. These non-native invasive species may include cheatgrass (*Bromus tectorum*). Cheatgrass has steadily increased its hold on western rangelands over the past several decades. A highly aggressive competitor, this annual species may occupy many more thousands of acres of rangelands in the Nevada area unless negatively impacted native communities are rehabilitated with perennial species to replace species killed in these fires. Cheatgrass is an undesirable species in native rangelands due to its competitive nature and ability to create monocultures and less diverse landscapes; shallow root systems that increase erosion potentials and decrease watershed health and function; low nutritional value for wildlife and domestic livestock; and it negatively impacts critical wildlife habitat. Other non-native species that may encroach into the burned areas include such species as hoary cress (*Cardaria draba*), Scotch thistle (*Onopordum acanthium*), and Russian knapweed (*Centaurea repens*). The impacts to the burned areas associated with the encroachment of non-native invasive species along with a description of species that have been documented by fire, is further discussed in the Non-native Invasive Plant Resource Damage Assessment.

2. Revegetation

The decision to re-vegetate burn areas will be based upon the following criteria:

- Watershed stability
- Control of Noxious weeds
- Protect the ecological integrity of the plant community

Areas of re-seeding were based on consultation and recommendations of the Elko BAER team watershed and vegetation specialists. The Elko BAER team relied heavily upon the reconnaissance data of the Resource

Advisors' reports. Meetings with the local resource staff personnel to assess each fire and map areas of the highest productivity, and/or resource value. The areas targeted for re-seeding also considered the parameters of soil properties, erosion potential, aspect, biological diversity, threat to existing watershed and seed availability.

The Elko BAER team will, for the most part, use the seed mixes that were agreed upon and established in the 1999 Northern Nevada Fire Complex, Elko 13, and Elko 21 rehabilitation plans. These seed mixes were developed in consultation with the public, county, and state resource advisors, as well as private landowners. The Elko BAER team vegetation specialists and local resource staff provided data based on rehabilitation efforts that have been implemented within the region and developed seed mixes based on the criteria listed above and consideration of the general ecological requirements and broad range of plant communities.

Refer to Part F - Specifications, Reseed Burned-Over Range Using Drill or Aerial Methods (#18, V-1, Ecological Stabilization - Planting/Seeding) for seed mixes by type and acreage for each fire. Also refer to Map Section showing Treatments for display of seeding locations by fire.

Aerial seeding

Aerial seeding will be completed on 8 of the 13 wildfires in the August 2001 Fire Complex rehabilitation plan encompassing 25,472 acres. The seed mixes designated will be applied by qualified fixed-wing or rotary wing aircraft at the seeding rate for each mix. 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.

Reseeding using rangeland drill

Rangeland drill seeding will be completed on 7 of the 13 wildfires in the August 2001 Fire Complex rehabilitation plan encompassing 16,736 acres. Drill seeding was targeted on areas with favorable access, soil conditions and slope.

Disking will be completed on 3,885 acres of the Sheep Fire prior to drilling. The Ranch Fire burned in the Elko and Winnemucca Field Offices. For more efficient planning purposes, the Elko Field Office is taking the lead in the rehab planning efforts.

Seed

For the purpose of developing budgeted costs for the above mentioned specified treatments, seed costs were obtained from different major seed vendors and the BLM seed warehouse director. The BAER team vegetation specialists used a standard price for each species per pound to develop cost figures. For the magnitude of this potentially large seeding

effort, it should be noted that there will be potential problems with the seed supply to meet the demands. Some species will not be available the first year; therefore substitutions may be necessary to establish some effective ground cover. It is anticipated however, that most grass species ordered would be available within the 3 year EFR window. Flexibility must be anticipated when planning the seed storage, mixing and actual seeding effort. Additional site preparation may be needed if seeding is done in year 2 and 3.

Refer to Part F- Specifications, Reseed Burned-Over Range Using Drill or Aerial Methods (#18 V-1, Ecological Stabilization - Planting/Seeding) for a complete list of seed mixtures by fire.

3. Seeding Effectiveness Monitoring

It is very critical that monitoring be conducted not only on proposed treatment areas, but on non-treated areas as well. The monitoring in unseeded areas will give managers an example of what could have happened without seeding. The National Research Council proposed the concept of rangeland health as a common denominator for the description of the nation's rangelands. Applying the concepts of rangeland health and thresholds to cheatgrass infested rangelands would yield valuable information for science based management decisions. Little research has been done to identify the thresholds of cheatgrass dominance where by a disruption in ecological processes, native plant composition or soil stability occurs. Young and Evans (1978) reported that native perennial plant densities of 2.5 plants per square meter were adequate to prevent cheatgrass dominance if the shrub steppe community was removed. Monitoring data, using the BLM techniques such as "freqdens" or other models will provide managers in this region, who most likely will also be conducting rehabilitation, with valuable data and applied research on treatment success and failures, as well as how certain plant communities respond to post fire effects. This information will also assist managers in providing baseline criteria for post fire grazing management.

4. Grazing

The August 2001 Fires have significantly altered management strategies for many grazing allotments, wildlife management areas, threatened species habitat, HMA's, and recreational areas.

The AUM losses suffered by local ranchers have ranged from minor in some grazing allotments to losses from 2 to 3 years of the forage base on BLM administered grazing lands. With the aid of field inventories, rancher participation, and GIS analyses, impacted allotments have been identified. Refer to Part H - Consultation of the plan for allotments and

permittees affected in the August 2001 Fire Complex Plan. Resource Advisor Reports contain information on structural improvement losses, livestock deaths resulting from the fire, and other property damage observed.

Many decisions must be made over the next several months between the BLM and permittees relating to management options within the impacted allotments. Recommended recovery periods for many of the more intensely burned areas will be 2 full growing seasons. There are many management options, however, that may influence when an allotment may be grazed, where and for how long grazing may occur. The specific AUMs that would be affected for each allotment will be identified as specific plans and grazing strategies, including closure where necessary, are developed.

It is not the intent of this report to prescribe specific management recommendations for each impacted allotment or permittee. Due to the amount of land impacted by these August 2001 fires, the immediate and careful review of management plans must receive a high priority to determine management options that not only provide the necessary protection for rehabilitation treatments and natural regeneration processes but also provide viable management options for the ranching community. Future grazing management decisions will be based upon site specific evaluations. This process will require a concerted effort between the BLM and permittees and could take several months to complete.

Specific objectives for each fire or portions of the burned areas, or on the basis of grazing allotments, will be developed to ensure attainment of the primary goal of watershed stabilization, threatened species habitat recovery, and preventing establishment of invasive plant species or noxious weeds. In many areas, the rehabilitation of burned areas will involve a natural revegetation response of the species burned but not affected by the fire. In some cases, re-seeding will be necessary to meet resource objectives and provide for watershed protection. In many cases, it could take two growing seasons following the burn or re-seeding for plant species to become established enough to withstand the impacts of grazing and still provide necessary watershed protection. However, because of the inherent variability in soils and site potentials within the burned areas of this size, site specific monitoring will be necessary to determine just when resource objectives have been achieved on specific burned areas. Annual site specific monitoring could show that grazing may occur sooner than two growing seasons or that longer deferment is needed. These determinations will be made on a case by case basis based on sound resource data, scientific principles, and experience. In those areas where cheatgrass invasion is a concern, a post fire grazing plan could include short duration early spring grazing as a tool to prevent cheatgrass

establishment or production, therefore reducing competition with perennial grasses for available moisture. However, such grazing strategies must take into consideration the phenological needs of existing perennial plant species. Because livestock grazing is administered by individual grazing allotments, the post fire grazing management for each allotment within the burned area will be developed, monitored, and evaluated on a case by case basis consistent with site specific resource objectives. (See BLM EFR Handbook, H-1742-1, page III-1. 7/27/1999)

5. Structural Range Improvements

Assessments of fences within the burned areas of the 13 fires listed in the August 2001 Fire Complex were conducted and compiled using information from Resource Advisor reports, visual inspections from a helicopter, and field reconnaissance. Other data was obtained from Resource Management Staff, permittee contacts (in-house and in the field), Allotment Management Plans, resource information on GIS, allotment maps, and allotment case files. Other range improvement damage was collected collaterally to this process.

Different states of damage were found on the fences in the burned areas. These ranged from some minor heat stress wire, to several burned posts or stress panels, to completely obliterated fence lines. To categorize these variable conditions two categories of fence and needs for rehabilitation were identified. These were termed “repair” and “reconstruct”. The primary distinction made is if wooden posts were badly burned so as to lay the wire on the ground and the fence is entirely dysfunctional it requires “reconstruction” or replacing. The “repair” category includes fences weakened by heat, with occasional burned posts, or with stress panels and corners burned but wire is left standing and intact. The recommendations for rehabilitation of these fences are found in Specification #27, V-10 Grazing Exclusion for existing fences requiring repair and #26, V-9 Grazing Exclusion for existing fences requiring reconstruction.

There were 77.5 miles of existing fence that were within the burn perimeters that are in need of repair or reconstruction. Approximately 69.4 miles need repair while 8.1 miles need reconstruction. Refer to either specification V-9 or V-10 for a tally of the fences by fire. Distances for these fences were derived from GIS mapping. More detailed listings of fence locations are found in the incident file. Repair or reconstruction of these fences is needed to protect critical riparian areas destroyed by the fire and to protect proposed rangeland seeding and natural revegetation within the burned area.

Proposed new fence needed for resource protection is another category. These are standard BLM specification fences for specific resource

protection efforts. There are about 105.7 miles of new fence proposed. The following is only a general assessment of these fence needs. The primary need for these fences is to manage livestock and wild horse grazing on sensitive, natural revegetation or seeded areas. The new fences are needed to protect and restore rangeland seedings and restore rangeland health and water quality by protecting seeding and critical riparian areas burned by the fires to allow vegetation to re-establish and stabilize soils and watersheds.

Recommendation for priorities of fencing needs are as follows:

- Protect and stabilize soils by keeping grazing animals off of seeded areas allowing plants to establish and develop effective root depths and root reserves.
- Control duration of grazing to keep a healthy and diverse plant community while utilizing the range forage for livestock production. Provide grazing management options to allow use of burned areas as range plant production permits as well as utilizing low value forage areas (cheatgrass).
- Rangeland reseeding, with protection from grazing, is needed to restore and to promote a healthy ecosystem and allow natural fire to assume its role in land management.
- Restore habitat for Lahontan cutthroat trout by managing livestock grazing to allow for the re-establishment of riparian plant communities.
- Develop improved plant community management (seral stages, range condition, cheatgrass and noxious weed invasion) integrating natural fire, prescribed fire, and grazing management to meet management objectives.
- Many pasture and allotment boundary fences were damaged or destroyed from the fire. Construction of the new proposed fences as well as repair and reconstruction of existing fences is essential to protect range resources.

6. Wild Horses

Approximately 290 wild horses were impacted in Rock Creek and Little Humboldt Wild Horse Herd Management Areas (HMAs) as a result of the Buffalo and Ranch Fires.

The Buffalo Fire burned approximately 14% of the Rock Creek HMA affecting approximately 250 wild horses. Numbers of wild horses

impacted is based on recent fight census information conducted shortly before the fire. These wild horses will result in significant impacts to any proposed rehabilitation efforts or recovery of critical riparian areas within the Buffalo Fire, if not removed. Of the 250 wild horses impacted, 150 wild horses would be adopted and 100 would be placed in a long term care facility.

The Ranch Fire burned approximately 2% of the Little Humboldt HMA affecting approximately 40 wild horses. During past census flights of the Little Humboldt HMA, wild horses have rarely been seen in the area burned by the Ranch Fire. However, fires in 1999, 2000, and earlier in 2001 has resulted in rehab efforts, including construction of new fences, that has changed the animals historical distribution. For the past couple of years, approximately 40 wild horses have been reported in this area and are impacting the rehabilitation efforts and will impact any new proposed rehab efforts within the Ranch Fire. Of the 40 wild horse impacted, 20 wild horses would be adopted and 20 would be placed in a long term care facility.

IV. RECOMMENDATIONS

A. Fire Suppression Rehabilitation

1. **Suppression - Dozer Lines (#7 0-2, Dozer Line Rehabilitation) - Complete rehabilitation of 4 miles of dozer line identified in this specification.**
2. **Suppression - Dozer Lines (#9 0-4, Dozer Line Stabilization) - Complete drill or aerial seeding of the 231.84 miles of dozer lines identified in this specification.**

Completion of the rehabilitation and seeding of the dozer lines will allow for stabilization of the soils while reducing visual impacts. Furthermore, seeding success will help prevent the spread and/or establishment of noxious and non-native invasive weeds.

B. Management (Specification Related)

1. **Reseed Burned-Over Range Using Drill or Aerial Methods (#18 V-1, Ecological Stabilization - Planting/Seeding)**
Complete 25,472 acres of aerial seeding, and 16, 736 acres of drilling seeding with the specific the seed mixes identified in this specification.

Fires within the August 2001 Fire Complex have negatively impacted mid to late seral plant communities and increased the potential for erosion, loss of ecological integrity through the invasion of non-native species, and the spread of known populations of noxious weeds. Range sites within the 13

fires covered under this plan have been analyzed and prioritized for treatment to prevent site degradation using site preparation techniques that may include disking.

2. Repair Pre-existing Fence for Resource Protection (Minor)
(#25 V-8, Grazing Exclusion)
Repair 69.4 miles of existing fence to allow for the protection of seeded areas or areas managed for natural revegetation. Protection of the seeded areas from livestock grazing is essential for the establishment of the desired vegetation. These fences are used as part of the range administration and allotment management plans.
3. Reconstruction of Pre-existing Fence Required for Resource Protection (Major) (#26 V-9, Grazing Exclusion)
Reconstruct 8.1 miles of existing fence to allow for the protection of seeded areas or areas managed for natural revegetation. Protection of the seeded areas from livestock grazing is essential for the establishment of the desired vegetation. Removal of the burned fence, including wire, is included in this specification. These fences are used as part of the range administration and allotment management plans.
4. Construct New Fence Required for Resource Protection
(#27 V-10, Grazing Exclusion)
Construct 105.7 miles of new fence for resource protection and/or enhance natural resources and their management. These fences are necessary to prevent grazing by livestock of burned areas needing grazing rest or protect sensitive species and key areas from grazing. Of the 105.7 miles to be constructed, 39.9 miles are temporary fence to be removed in Year 3 of the plan. The temporary fence was necessary due to some areas possibly requiring longer periods of rest from grazing. Administrative and contract costs for removal of the temporary fences has been included in this specification.
5. Gather Wild Horses
(#30 H-1, Exclude Wild Horses from Burned Area)
Remove 290 wild horses from the Rock Creek and Little Humboldt HMAs. Removal of the wild horses is necessary to ensure vegetative recovery for the burned area. Wild horses that are not adopted would be placed in a long term care facility.

C. Specification Monitoring

1. Monitoring Success of Seeded Areas and Areas Managed for Natural Release
(#24 V-7, Monitoring and Evaluation of Emergency Treatments)

Conduct re-seeding monitoring each year following treatment (2002-2003) to determine success of revegetation efforts on the August 2001 Fire Complex. Utilize "Fregdens" Techniques or similar methods established for seeded areas. Use production/site composition methods for areas managed for natural revegetation. A resource specialist from the Elko Field Office will provide program oversight for this specification.

D. Management (Non-specification Related)

1. Establish vegetation database on current range data, plant communities, and their ecological health in GIS to assist future management in assessment, rehabilitation and restoration.
2. Establish vegetative objectives for grazing management and baseline criteria.
3. Use public information releases to promote rehabilitation efforts and improve community relationships.
4. Enhance public outreach programs by utilizing volunteer organizations to learn about and be involved with rehabilitation efforts. Reach out to conservation groups and grow wildlife shrubs in greenhouse nurseries and plant containerized seedlings.

V. CONSULTATIONS

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Grazing Permittees

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Tomera Ranches, Inc.
Ellison Ranching, Inc.
Kenneth Buckingham
Twenty Six Ranch, Inc.
Elko Land and Livestock
Maggie Creek Ranch
Dean Rhoads
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