

**United States Department of the Interior  
Bureau of Land Management  
Elko Field Office  
Elko, Nevada**

**MUDD FIRE  
EMERGENCY STABILIZATION AND REHABILITATION PLAN  
FINDING OF NO SIGNIFICANT IMPACT AND DECISION RECORD  
BLM/EK/DNA-2006/015**

The Mudd Fire was a human caused fire that started on August 23, 2006 and burned 13,588 acres. The fires burned 7,035 acres of Bureau of Land Management (BLM) managed public lands, and 6,588 acres of private land by the time it was contained. The Mudd Fire was contained on August 26, 2006 at 1800 hrs and was controlled on August 30, 2006 at 20000 hrs. The fire was located in Elko County, Nevada. The Department of Interior (DOI) ordered a National Interagency Burned Area Emergency Response (BAER) Team to assess the damage to BLM lands managed by the Elko Field Office and prepare an Emergency Stabilization Plan for the Mudd Fire, as well as, the East Humboldt Complex and Charleston Complex that burned at approximately the same time. The Field Office would prepare the Rehabilitation Plans. To comply with the National Environmental Policy Act (NEPA), the BAER team also prepared the Documentation of Land Use Plan Conformance and National Environmental Policy Act (NEPA) Adequacy (DNA). The damage assessment, plans, DNA, and associated documents are available for inspection upon request to the BLM, Elko Field Office.

**Finding of No Significant Impact**

Based on the analysis of potential environmental impacts contained in the September 2006 Mudd Fire Emergency Stabilization and Rehabilitation Plan DNA, I have determined that the proposed action will not have a significant impact on the human environment. Therefore, preparation of an environmental assessment or an environmental impact statement is not required prior to approving and implementing the proposed emergency stabilization and burn area rehabilitation plans.

**Decision**

It is my decision to implement the Mudd Fire Emergency Stabilization and Burn Area Rehabilitation Plans treatments, as described in the EA and summarized below.

**Drill Seeding**

Drill seeding 188 acres of a seed mix of native and nonnative species on moderate to high vegetation mortality and moderate burn severity areas to maintain ecological stability, minimize invasion of cheatgrass and noxious weeds and stabilize areas identified as having high wind erosion hazard in order to minimize topsoil loss and fugitive dust. One seed mix composed of Crested wheatgrass, Russian wildrye, Indian ricegrass, Secar Snake River wheatgrass, Thickspike wheatgrass and alfalfa is proposed. Range sites within these fires have been analyzed and prioritized for treatment to prevent site degradation, maintain ecological stability, and prevent the spread of non-native, invasive weeds on sites that are suitable for ground seeding methods. Seeding would utilize species that are adapted to the sites. Seeding would help quickly establish vegetation that will stabilize soils, reduce erosion, improve soil infiltration of moisture, provide competition for invasive nonnative species and replace organic litter that was consumed by fire. It is expected that perennial native and non-native grasses, shrubs and forbs will establish within the burned area during the first growing season. Seeding would be completed using a rangeland drill ahead of or concurrent with fall or winter moisture. Literature, research, implementation of previous ES and BAR plans, and personal knowledge of BAER team members and Elko Field Office staff has shown success with this timing and application method. It is expected that vegetation establishment would be successful on all sites although the presence or absence of timely moisture could be a limiting factor. See Vegetation Treatments - Seeding Map, Appendix IV for proposed ES Plan treatment locations.

### **Aerial Seeding**

As part of the Emergency Stabilization (ES) plan, range sites within this complex were analyzed and prioritized for treatment to prevent site degradation, maintain ecological stability, and prevent the spread of nonnative invasive weeds on sites that cannot be seeded by ground seeding methods. Aerial seed 2,856 acres of moderate to high vegetation mortality and moderate soil burn severity areas that is unsuitable for ground seeding due either to terrain or access or both. One seed mix is proposed composed of Western yarrow, Bannock thickspike wheatgrass, Secar Snake River wheatgrass, Magnar Great Basin wildrye and Sherman big bluegrass. The seeding would utilize species that are adapted to the sites. Note that seed availability is unknown to date with any future requests for fresh seed collected during Fall 2006, due to approximately 700,000 acres of primarily public lands burned on the Elko District as of September 4, 2006. Competition for available seed is high based on the large acreages burned and number of fires. Seeding would help quickly establish vegetation that will stabilize soils, reduce erosion, improve soil infiltration of moisture, provide competition for invasive non-native species and replace organic litter that was consumed by fire. Seed would be applied by rotor aircraft ahead of or concurrent with fall or winter moisture. Literature, research, and personal knowledge of BAER team members and Elko Field Office staff has shown success with this timing and application method. It is expected that vegetation establishment would be successful on all sites although the presence or absence of timely moisture could be a limiting factor. See Vegetation Treatments - Seeding Map, Appendix IV for proposed locations.

First year effectiveness includes stabilization of the soil surface, reducing topsoil loss, improving soil infiltration of moisture, providing competition for invasive nonnative species and replacing any organic litter which was consumed by fire. First season vegetation establishment will be by perennial native and non-native grasses, shrubs and forbs. It is expected that vegetation establishment will be successful on all sites although the presence or absence of timely moisture could be a limiting factor. Treatment effectiveness will be monitored (see specification S16). Specification S10, Cultural Resource Treatment Clearance, has been written to provide for cultural clearance on any ground disturbing activities. Clearance will be obtained before any treatments proceed. See Vegetation Treatments - Seeding Map, Appendix IV for proposed stabilization treatment locations.

### **Aerial Wildlife Habitat Broadcast Seeding**

As part of the Burn Area Rehabilitation (BAR) Plan aerially seed approximately 4,420 acres based on ecological site potentials using the following mixes:

- Upper elevation on 1,500 acres. The seed mix is Mountain big sagebrush, basin big sagebrush, bluebunch wheatgrass and Western yarrow.
- Lower elevation on 1,570 acres. The seed mix is Wyoming big sagebrush, basin big sagebrush Bannock cultivar), thickspike wheatgrass and Western yarrow.
- Mid elevation on 950 acres. The seed mix is Gray low sagebrush, bluebunch wheatgrass and western yarrow.

Acres treated will be seeded aerially based on ecological site potentials with the use of a helicopter with a seed broadcast bucket. Seeding in swaths (e.g. seed application on 80 foot swath, leave 160 foot swath and apply again) that allow for plant establishment and future seed sources will be prioritized on any "large" areas that burned completely. Selective spot seeding will also be considered due to the mosaic of vegetation types affected and to avoid intact unburned areas to where specific sagebrush species will be seeded considering site potential. Acreage would be duplicated on those areas where aerial seeding and on-ground antelope bitterbush seeding occurs on the same affected site. Bluebunch wheatgrass might be substituted with Snake River wheatgrass, a native perennial species.

Seed mixtures shown in this subsection would allow for additional rehabilitation of wildlife habitat as well as allow watershed protection and reduce erosion potential. The consideration of acreage seeded includes, 1) two-tracks for potential vegetated fuel breaks separate from this DNA, 2) private lands and 3) the estimated unburned areas within the perimeter. The seeding would provide cover and forage for at least 250 wildlife species that inhabit sagebrush habitats and interspersed riparian/meadow habitat including sage grouse and mule deer, migratory birds and Special Status Species. It would also provide vegetation needed for ecological site dynamics

### **Antelope Bitterbrush Seeding/Seedling Planting**

In the event that bitterbrush recruitment from seed or young to mature age class plant re-sprouting is not observed through monitoring by spring 2008, all or portions of at least 750 acres will be considered for seeding or seedling plantings in mid to upper elevation sites where it occurred prior to the Mudd Fire. Considerations include, but are not limited to, stands observed during field tours that provide cover for special emphasis species that were otherwise burned completely. These areas are generally located at mid to upper elevation ranges and primarily characterized by the Loamy 10-12" and Loamy 12-16" Precipitation Zone Ecological Sites. Methods considered for establishing bitterbrush include, but are not limited to, hand-seeding, mechanical (e.g. drill-seeding or Hansen Seed Dribbler) seeding, and planting and protection of bare root stock or container stock. Seeding will be considered at equivalent of 3.0 Pure Live Seed pounds/acre equivalent.

### **Quaking Aspen Protection**

No aspen was noted in the Mudd Fire and therefore required ES or BAR protection, however any quaking aspen stands identified on public lands may be protected with fencing, as deemed necessary, until recruitment height and density objectives are met.

### **Noxious Weed Treatment**

This treatment would provide for control of known non-native weed infestations within the Mudd Fire perimeter prior to seed-set and maturation. Noxious weeds on 20 acres of known infested areas would be treated and detection and monitoring of known invasive weed infestations within the Mudd Fire perimeters prior to seed-set and maturation would occur. Control of these Nevada Listed noxious weeds needs to be conducted or they will spread into non-infested areas of the burn. Integrated pest management techniques (herbicides, biological, mechanical, and cultural control methods) would be used as appropriate to prevent the spread and establishment of noxious weeds within the fire area. No cost was developed for possible hand grubbing of weeds since so few weeds would be treated in this manner, and grubbing would occur in association with spraying. See Vegetation Treatments – Weeds Map, Appendix IV for proposed locations.

### **Noxious Weed Detection**

Conduct noxious weed detection surveys for possible invasion of noxious weeds on roads, hand lines, dozer lines, and other disturbed areas within the Mudd Fire perimeters. Monitor existing noxious weed infestations within the burned area to determine if expansion is occurring into non-infested areas. An inventory would be conducted for noxious weeds near existing locations and in areas that have a high probability for invasion within the burned area. See Vegetation Treatments - Weeds Map, Appendix IV for proposed locations.

### **Protective Fence – Temporary**

Construct six miles of temporary protective fences within the Mudd Fire. Fences would be used to protect seeded areas or areas managed for natural recovery from livestock grazing. See Range Improvement Treatments Map, Appendix IV for proposed locations.

### **Protective Fence – Permanent**

There is no proposal to repair or replace permanent protective fence on the Mudd Fire to provide for control and management of livestock. No new fences to protect critical resources including listed and sensitive species habitats on the Mudd Fire were identified.

### **Repair Replace Signs**

Install flooding hazard signs within the expected area of impact, along the lower reaches of Kittridge Creek in order to warn residents of this elevated hazard.

### **Dozer Line Rehabilitation**

Dozer line rehabilitation includes 12 miles on BLM land and 16 miles on private land. The dozer lines will be seeded utilizing a broadcast and drag method. Broadcast seeding methods will be done utilizing either an ATV, pickup, or by hand. The dozer line 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 dozer lines will be seeded with a mixture, such as bluebunch wheatgrass, western yarrow, and blue flax in high elevation sites and possibly crested wheatgrass in low elevation areas.

#### **Cultural Protection – Post Fire Assessment**

This treatment would entail assessment of known National Register (NR) or potentially eligible prehistoric and historic archaeological sites for post-fire damage and potential risk from erosion, looting or vandalism. This treatment may also provide for emergency BAER actions on those easily accessible sites that are deemed to be highly sensitive to looting.

#### **Cultural Resources Treatment Clearance**

Pursuant to Section 106 of the National Historic Preservation Act, the lead Federal agency needs to take historic properties into account prior to implementing Federal Undertakings. Cultural resource inventories would be conducted on areas proposed for ground disturbing stabilization treatment (fence construction, drill seeding, etc). The maps illustrating where proposed actions are located are in Appendix IV. These inventories would be conducted prior to implementation of the proposed treatments in order to identify and avoid cultural resources determined by the BLM to be eligible for the National Register.

Inventories would be in accordance with the State Protocol Agreement between the Nevada BLM and the Nevada State Historic Preservation Office (SHPO). All cultural resources located or re-located would be recorded on the Nevada IMACS short form and plotted on maps. Cultural resources that are determined to be eligible for the National Register would be flagged for avoidance prior to stabilization activities. Flagging would be removed as soon as possible after stabilization treatments to minimize the potential for looting and vandalism.

#### **Monitoring Effectiveness**

Areas within the Mudd Fire burned from low soil burn severity to moderate, with some unburned islands creating a mosaic effect in portions of the burned area. The vast majority of the fire was in the low soil burn severity range with high above ground vegetation mortality. The BAER Team vegetation and watershed groups, in consultation with the range and natural resource staff of the Elko Field Office, have recommended vegetation treatments to stabilize soils, prevent the invasion of nonnative annual plant species, and treat known locations of noxious weeds. This specification proposes re-seeding monitoring for three years following treatment (2007-2009) to ascertain success of re-vegetation efforts. Utilize "Freqdens" Techniques or similar methods established for seeded areas. Use production/site composition methods and/or density for areas managed for natural release. Consult with APHIS representatives on potential impacts to seedings from Mormon cricket epidemics. Monitor any relic aspen stands and stream and riparian habitats for post fire regeneration and impacts from grazing and wildlife. A resource specialist from the Field Office would provide program oversight for this specification.

Establish monitoring transects within all seeded areas and within areas managed for natural release in each plant association type reseeded in 2007. Final site selections would be made by a BLM resource specialist. Site selection includes stratification of areas based on range sites, slope, soils, aspect, treatments (including seeding methods, seed mixes, and natural release), allotments, etc. This stratification would occur primarily during the first year.

#### **Grazing Closure**

Livestock grazing would be removed from burned areas for a minimum of two years or until vegetation establishment objectives are met, in order to provide an adequate amount of time to allow the seeded vegetation to establish and for burned areas to recover naturally. The closure will be reopened to livestock grazing once the establishment objectives in the Fire Closure Agreement decisions have been met.

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.

## **Rationale**

Implementation of the proposed action described in the Emergency Stabilization and Rehabilitation Plan DNA for the Mudd 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 proposed fence will be constructed around the burn perimeter to keep grazing animals off the recovering burn to allow establishment of seeded and pre-fire vegetation species. This temporary fencing will be used in conjunction with existing fences to protect the burn area from grazing. This fencing and subsequent rest from grazing will allow for plants to re-establish and develop effective root depths and root reserves. Vegetation establishment will help reduce the risk of dust and ash storms decreasing visibility on Interstate 80. Vegetation establishment will help reduce the risk of accelerated soil erosion and mud flows in Kittridge Canyon and other areas of concern and provide for soil stabilization. Vegetation associated with wetlands, riparian zones, and floodplains will be allowed to reestablish.

The broadcast seedings within drainages and low lying areas and aerial seeding on slopes will provide for soil stabilization and will reduce the potential invasion of cheatgrass, and any other nonnative noxious weeds. The seedings will also provide cover and forage for area wildlife populations and nesting habitat for migratory birds. Successful seeding of some drainages and the low lying areas near the South Fork of the Humboldt River and its tributaries will help reduce runoff and trap sediment, which will help prevent further degradation to the water quality. Successful seeding of the drainages and low lying areas will also help protect aquatic species habitat from receiving excessive amounts of sediment and provide for streambank stabilization.

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." 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

\_\_\_\_\_/10/5/06  
Date