BURNED AREA EMERGENCY STABILIZATION PLAN

MURPHY FIRE COMPLEX

EXECUTIVE SUMMARY

The Murphy Fire Complex burned portions of southern Idaho and northern Nevada and through multiple landowner jurisdictions. This plan addresses emergency stabilization of fire effects resulting from the Murphy Fire Complex that burned on the Humboldt-Toiyabe National Forest. This plan has been prepared in accordance with the *U.S. Department of Agriculture, Forest Service Handbook 2509.13, Burned-Area Emergency Rehabilitation Handbook (January, 1995)* and *Forest Service Manual 2500, Watershed and Air Management, Chapter 2523 (Revised May, 2004); U.S. Department of the Interior, Departmental Manual, Part 620, Chapter 3 (Wildland Fire Management): Interagency Burned Area Emergency Response Guidebook (February, 2006):.*

The primary objectives of the Murphy Fire Complex Burned Area Emergency Stabilization Plan are:

1. Protect human life and Safety:
    - Prescribe post-fire mitigation measures necessary to protect human life and property along the road system;
    - Improve safety where the fire damaged bridge at Hicks Summit was removed and a low water crossing constructed;
    - Install warning signs on applicable roads about the hazards ahead; and
    - Storm proof road crossing at streams, stabilize and prevent loss of road prism, and improve or replace undersized or damaged culverts.
2. Stabilize Threatened & Endangered and State Sensitive Species Habitat:
    - Prevent permanent impairment of T& E and state sensitive species habitat; and
    - Rest areas of the burn from grazing within the guidelines provided by the Forest Plan and repair fencing for active adjacent allotments.
3. Provide for the natural recovery of native plant communities in a timely fashion in order to reduce or eliminate a threat to long-term soil productivity and protect the ecological integrity of the ecosystem:
    - Monitor recovery of critical habitat and treatment effectiveness to determine if additional or amended vegetation treatments are required;
    - Control expected invasion by Canada thistle (Cirsium arvense), Wild licorice (Glycyrrhiza lepidota), Bull thistle (Cirsium vulgare), Scotch cottonthistle (Onopordum acanthium), Perennial pepperweed (Lepidium latidolium), Hoary cress (Cardaria draba), Yellowspine thistle (Cirsium ochrocentrum), and Black Henbane (Hyoscyamus niger). Some limited control of cheatgrass (Bromus tectorum) in small patches within native plants, where deemed feasible; and
    - Monitor for new invasive species, new infestations of known noxious weeds, and native vegetation recovery that can compete with noxious weeds.
5. Stabilize or mitigate soil loss, increased runoff, and sediment delivery to streams within the watershed:
    - Stabilize and prevent further degradation to affected watersheds and soils

An array of treatment options and/or actions allowable by Department of the Interior (DOI) and Department of Agriculture (USDA) policy, have been considered to attain the above objectives.

Introduction

The National Interagency Burned Area Emergency Response (BAER) Team has conducted an analysis of fire effects using aerial and ground reconnaissance methods throughout the fire areas. The watershed group worked with local hydrology and soils specialists to assess and map the overall fire impacts on watershed conditions and develop a soil burn severity map. The vegetation specialists worked with local vegetation, range, and foresters to evaluate and assess fire effects and wildland fire suppression impacts

to vegetation resources, including mapping noxious invasive weed populations and fire induced vegetation mortality. An archeologist inventoried wildland fire suppression impacts and fire effects to known culturally significant sites to determine if these sites require emergency stabilization treatments to prevent further damage or loss. The wildlife biologist coordinated local wildlife biologists and conducted an assessment of fire effects to Federal Threatened and Endangered (T&E) wildlife and Forest Service sensitive species and their associated habitat. The biologists also evaluated suppression impacts to wildlife species and initiated emergency Section 7, Endangered Species Act consultation with the U.S. Fish and Wildlife Service, Reno Field Office. The Team Geographic Information System (GIS) specialists gathered data layers necessary for the plan, coordinated GIS activities, processed data calculations for other resource specialists, and produced maps for analysis, for the BAER Plan and for presentations.

Resource assessments produced by these specialists can be found in Appendix I and individual treatment activities proposed for funding and implementation that have been identified in the resource assessments are located in Part F, Description of Treatments by Issue. A summary of treatment costs can be found in Part E, Cost Summary Table. An Approval Page is provided as a signature page for agency review and approval at the front of the plan. The FS-2500-8 Burned-Area Report is located in Appendix VI for signature and submittal to the Intermountain Region for funding approval.

Appendix II contains the environmental compliance documentation prepared in accordance with the requirements of the National Environmental Policy Act (NEPA), BLM, and USFS policy. This appendix analyzes reasonably foreseeable individual and cumulative impacts of treatment actions proposed in the BAER Plan and evaluates the consistency of proposed actions with existing programmatic NEPA documents. All proposed actions are either categorically excluded from NEPA or are covered in existing land management plans with approved environmental assessments. Appendix III contains photographic documentation of fire effects and Appendix IV contains BAER Plan Maps produced to assist with resource damage assessments. Appendix V contains supporting documentation for the plan including the FS-2500-8 Burned-Area Report.

Murphy Fire Complex Fire Information

The Murphy Fire Complex burned 595,699 acres in elevations ranging from 4,902 to 9,449 feet. Land ownership within the fire area includes 436,402 acres of BLM land in Idaho and Nevada, 91,185 acres of Forest Service land, 28,516 acres of State land in Idaho and Nevada, and 39,594 acres of privately owned land (see Ownership Table below).

The Murphy Fire Complex Fire started on July 16, 2007 at approximately 1912 hours and grew rapidly until finally being contained at 1800 hours on August 2, 2007. Overall, the area burned by the Murphy Fire Complex experienced low to moderate fire intensity with some small patches of high fire intensity. Most of the fire in the upper elevations includes a mosaic pattern of burned area interspersed with patches of unburned, while some of the lower elevations burned cleaner due to fine fuel loading including cheatgrass.

The National Interagency BAER Team was ordered on July 27, 2007 and the Team arrived and negotiated acceptance of responsibility for the preparation of the BAER Plan for the Murphy Fire Complex, Wildhorse Zone on July 30, 2007. This meeting involved the agencies of BLM (Elko and Jarbidge Field Offices), FS (Mountain City and Ruby Mountains/Jarbidge Ranger Districts), Nevada Department of Wildlife, and Nevada Division of Forestry. This meeting outlined the responsibility of the National Interagency BAER Team to include only the portion of the fire within FS jurisdiction (including isolated non-federal land parcels) on the Wildhorse Zone. The BLM Elko and the Jarbidge Field Office BAER Team would develop separate BAER Plans for lands within their respective jurisdications (including isolated non-federal land parcels). Support to the Jarbidge Field Office was provided by the National Interagency BAER Team in the form of consultation for watershed modeling and vegetation and soil burn severity mapping. The National Interagency BAER Team closeout was conducted on Friday August 10, 2007 at the Elko Field Office, BLM.

Ownership Murphy Fire Complex

FIRE	MILITARY	STATE OF NEVADA	PRIVATE	BLM	USFS
Wildhorse Zone	0	2,137	1,657	245	91,124
Castleford Zone	1	26,379	37,937	436,157	61
TOTAL 595,699 ac	**1 ac**	**28,406 ac**	**39,594 ac**	**436,402 ac**	**91,185 ac**

Management and Applicable Land Use Plans

The Murphy Fire Complex: Wildhorse Zone Burned Area Emergency Stabilization Plan was reviewed and it was determined that actions proposed in the Burned Area Emergency Stabilization Plan within the boundary of U.S. Forest Service lands are consistent with the management objectives established by the Humboldt-Toiyabe National Forest. The existing land management plans and approved NEPA documents were reviewed and are summarized below.

- Humboldt National Forest Land and Resource Management Plan and Final Environmental Impact Statement, October 1999 Reprint with Amendments #1 – #6
- Humboldt-Toiyabe National Forest, Land and Resource Management Plan, Assessment of Wilderness Potential, 2006
- Humboldt-Toiyabe National Forest Plan revision is conducted in accordance with the 2005 Planning Rule (36 CFR 219), involving an assessment of wilderness potential.
- Humboldt-Toiyabe National Forest Fire Management Plan, 2007
- Environmental Assessment for Noxious Weed Control Program, Humboldt-Toiyabe National Forests, Elko, White Pine and Humboldt Counties, Nevada 1996
- Threatened and Sensitive Species of the Intermountain Region, 1991
- FSM 2000 – National Forest Resource Management, Chapter 2080 – Noxious Weed Management, 2004
- Environmental Assessment Bruneau River Watershed Environmental Analysis, Humboldt National Forest, Mountain City Ranger District, Nevada 1994

Emergency Stabilization Issues

The BAER Team delegations of authority, in-briefing and subsequent meetings with FS and BLM representatives and state public scoping provided valuable information concerning post-fire conditions and issues that need to be addressed. These issues broadly fall within five categories:

Standard Issues:

- Protection of Human Life and Property
- Soil and Watershed Stabilization
- Threatened and Endangered Species habitat stabilization
- Stabilization of Critical Heritage Resources
- Invasive Species Control

Specific Issues:

- Wildlife
- Bull Trout
- Bald Eagle Nest Site
- Columbia Spotted Frog
- Redband
- Pygmy Rabbit
- Sage Grouse
- Mule Deer
- Goshawk
- Flammulated Owl
- Mountain Quail

- Spotted Bat
- Townsend Big Ear Bat
- Elk
- Antelope
- Big Horn Sheep

- Cultural
  - Looting of sites
  - Native American consultation
  - Historic sites

- Property
  - Roads
  - Culverts
  - Bridge
  - Prescriptive Use Area Fencing
  - Historic Cabins
  - Downstream Structures
  - Fences
  - Troughs / Water Ponds
  - Signs-safety, information

- Botany/Vegetation/Weeds
  - Cheatgrass
  - Noxious Weeds
  - Unwashed suppression equipment
  - NV sensitive / Forest sensitive species
  - Erosion
  - Grazing alottment closures
  - Cottonwood trees
  - Hazard trees
  - Prescriptive Use Areas

Resource Assessments:

Safety – Burned areas are dangerous environments to work in. The emphasis on safety practiced throughout the fire suppression effort continued through the BAER Teams efforts. Team members can encounter hazard trees, rough terrain, hazardous driving conditions, and numerous other environmental hazards and sudden weather events such as lighting.

A Risk Assessment/Job Hazard Analysis was completed for the BAER Team assignment for the Murphy Complex, Wildhorse Zone. Operations presented the Risk Assessment/JHA to the BAER Team when we arrived and all team members signed it acknowledging the risks associated with this assignment. The risk assessment/JHA can be found in Appendix V. Safety briefings were also conducted at each nightly team meeting, and a safety corner was established in the BAER Den with a new safety message posted daily.

Twelve BAER Team members took helicopter flights during the Team's aerial reconnaissance phase of the Wildhorse Zone to gather information. Operations scheduled these flights through the Air Operations Director on the IMT, and Elko Nevada Dispatch. The Helitack Manager at the helibase conducted safety briefings for the Team members prior to each flight.

There were no accidents that occurred during the BAER Team assignment at the Murphy Fire Complex, Wildhorse Zone.

Watershed – Due to burned vegetation and exposed soil on steep mountain slopes, there is a significant potential for increased runoff and soil erosion/sedimentation, which results in five main values at risk:

- Threats to Life and Property: There are numerous locations in the fire area that are at increased risk for potential flash floods, rock-fall and debris flows due to steep slopes, geologic materials, and additional post-fire runoff.
- Fisheries/Aquatics: The Bruneau River and its tributaries contain approximately 70 miles of fish habitat that were affected by the fire. Fisheries and aquatic habitat would be detrimentally affected by increased post-fire sedimentation.
- Road System: Several road segments were identified to have potential post-fire road surface drainage problems and/or under-sized culverts unable to handle post-fire stream flows as a result of the anticipated increased runoff.

- Soil Productivity: Several areas have a high potential for post-fire soil erosion if a high intensity rainstorm were to occur during the first two years following the fire. The loss of a major portion of the topsoil would reduce the soil productivity of these sites.
- Water Quality: There will be increased sediment yield and associated nutrient yield from the runoff waters of the burned watersheds. The sediment increases may affect some fish habitat.

Aerial reconnaissance and field observations within the fire perimeter revealed that most burned area soils fell into a low soil burn severity classification. Viable shrub root crowns and grass roots should allow for natural revegetation of these sites but with somewhat reduced post-fire foliage coverage than pre-fire. Soils with a moderate or high burn severity classification were limited to several relatively small areas and have significantly less viable shrub root crowns. The natural revegetation on these sites is likely slower and will have less foliage cover than the moderate burn severity sites. Total acres burned and percent acres burned for each burn severity class are displayed below:

Burn Severity	Acres	Percent
High	41	>.1
Moderate	8,741	9.2
Low	67,088	70.5
Unburned	19,294	20.3
Total	95,164	100

The majority of the burned area did not have detrimentally affected vegetation or soils. There was only 1.2% of the burned area classified as having high vegetation mortality, and less than .1% of the fire area was determined to have a high soil burn severity. Where soils with high soil burn severity occurred, they were not associated with critical values at risk. The majority of the fire (70.5%) was determined to have burned with a low soil burn severity. Of area burned in the fire approximately 3.3 percent of those sites were hydrophobic. The sites where hydrophic conditions were observed were well distributed across the fire area.

The fact that the fire burned with a low severity in most areas does not mean there were not fire effects. Greater potential for soil erosion exists in areas with steeper slopes (>40%), which a high percentage of the fire area is. Because of the steep slopes and moderate permeability rates associated with the majority of the soils in the fire area, the removal of the vegetation and surface organic layer has increased the runoff potential from these sites significantly. The Disturbed WEPP modeling results showed a 47 to 63% increase in probability runoff from the vast majority of the burned lands in the fire area.

The increased runoff potential increases to potential for soil erosion to occur. The majority of the soils increased from a pre-fire soil erosion potential of approximately .5 ton/acre/year (grassland site) to a post-fire potential soil erosion of approximately 6 tons/acre/year. With a high intensity rainstorm the potential soil erosion could be in excess of 20 to 30 tons/acre/year if 30-year return interval storm were to occur. Because of the low mortality of the burned vegetation, the short time-frame when the burned area is susceptible to post-fire erosion (approximately 2 years), and the limited decrease in risk associated with seeding grass, the watershed and vegetation specialist did not recommend any grass seeding in the fire area. Other upland watershed treatments to reduce the potential runoff and/or soil erosion were examined but none were deemed appropriate to be used on the burned mountain slopes in this fire area. The most effective post-fire treatments for this area are associated with roads and road drainage situations. The treatments relate to maintaining adequate drainage capacity in the bridges and culverts to accommodate the post-fire potential runoff; and to reduce the effects of the road system to off-site values at risk.

Vegetation – The purpose of the vegetation assessment was to determine if lands burned directly by the wildland fire are likely to recover naturally from severe fire damage or if emergency stabilization treatments are required to ensure that vegetative recovery will emulate historic or pre-fire ecosystem structure, function, diversity, and dynamics. Critical habitat for R4 sensitive wildlife species (sage grouse,

goshawk, Columbia spotted frog) and the Threatened Bull trout (the Bruneau River is probable over-wintering habitat) makes vegetative recovery a significant issue.

Vegetation mortality was determined to be 1% high, 24% moderate, 55% low and 20% low to unburned on lands within the Wildhorse Zone. There were approximately 46 vegetation types classified within the fire area by LANDFIRE that were grouped into a final 11 groups. Predominant among these groups are the big sagebrush shrubland and low sagebrush steppe. Primary forest cover types within the burn are aspen stands, with mixed conifers in the higher elevations. Seven Forest Sensitive species and one Forest Watch species are known to occur within and adjacent to the fire area but none were located during field assessments.

Noxious and invasive non-native plant species are present within the fire area. Additional populations were mapped as part of the vegetation field assessment. Canada thistle is already sprouting in burned riparian areas. These species will be expected to expand their range unless detection and control treatments are proposed. The major strategy of the vegetation treatments is to allow the native grasses to recover to a point where they will out compete invasive species such as cheatgrass and other noxious weeds.

Treatments are needed to prevent expansion of invasive species aggravated by the fire or fire suppression activities. Without temporary fencing the grazing permittees will lose usage of substantial portions of their grazing allotments, which were unburned. This cooperation between the agency and the permittees will strengthen the relationship while still protecting vegetative recovery. A final specification is proposed to monitor the effectiveness of the recovery of native vegetation within the fire perimeter.

Wildlife – The Jarbidge River Distinct Population Segment (DPS) of bull trout (Salvelinus confluentus) is a federally listed threatened species with occupied habitat on the Humboldt-Toiyabe National Forest adjacent to the burned area. The Murphy Fire Complex: Wildhorse Zone and associated suppression actions were determined to have “no effect” to bull trout, given there was no spatial overlap between the disturbance mechanisms and the local population watersheds identified in the draft bull trout recovery plan. However, there are no physical barriers preventing fish movement between the Jarbidge and Bruneau Rivers. Information in the Draft Bull Trout Recovery Plan (FWS 2004) suggests a strong probability that sections of the Bruneau River provide over-wintering habitat for fluvial (migratory) bull trout.

Occupied habitat for one candidate species, Columbia spotted frog (Rana luteiventris), occurs in beaver complexes, springs, and ponds scattered throughout the burned area. The Columbia spotted frog is also on the Region 4 Sensitive Species List (2003). Columbia spotted frog habitat has undergone broad-scale changes throughout its range. Southern isolated populations in the Great Basin are declining and face major threats, including habitat loss/degradation. Riparian and wetland habitat conditions have generally declined across the Interior Colombia Basin (Wisdom et al. 2000). Human-related factors affecting these resources include livestock grazing, timber harvest, fire suppression, irrigation, hydroelectric-power, mining, flood control projects, introduction of exotic plants and others. Decreasing amounts of large woody debris, increased vulnerability to stand-replacing fire, departures in vegetation structure and compositions that increase potential for soil erosion, source habitat declines, increases in abundance and distribution of exotic plants, and high levels of disturbed soil: each of these attributes could adversely affect water quality and other aspects of Columbia spotted frog source habitat and ultimately reduce the quality and quantity of source habitat for this species.

Greater sage grouse (Centrocercus urophasianus), a Region 4 Sensitive Species, occupy habitat throughout the burned area. All types of sage grouse habitat were extensively burned within the Murphy Complex: Wildhorse Zone fire perimeter, including approximately 4,620 acres of sage grouse nesting/early brood rearing habitat, 77,446 acres of winter habitat and 95,163 acres of summer/late brood rearing habitat. The area within the fire perimeter included approximately 66,000 acres (4%) of the North Fork Sage Grouse Population Management Unit (PMU) and 29,000 acres (11%) of the Islands Sage Grouse PMU. Sage grouse population estimates in the Draft Northeast Nevada Sagebrush Ecosystem

Management Plan range from 1,094 to 1,313 for the Islands PMU and 10,046 to 12,055 for the North Fork PMU. Trend estimates are static with a long-term downward trend for both PMUs.

Pygmy rabbit (Brachylagus idahoensis) has been documented in numerous sites throughout the burned area. The Regional Forester's list (2003) designated pygmy rabbit as a sensitive species in Forest Service-Region 4. Pygmy rabbits are typically found in areas of tall, dense sagebrush (Artemisia spp.) cover, and are highly dependent on sagebrush to provide both food and shelter throughout the year. Their diet in the winter consists of up to 99 percent sagebrush. According to the listing petition and literature cited in 70 FR 29259, fire effects to pygmy rabbits may include mortality, increased predation, or home range abandonment. Post-fire loss of big sagebrush habitat within this large burned area will contribute to a cumulative effect of habitat loss for pygmy rabbits across their range. Remaining forage for pygmy rabbits within the fire perimeter appears to be limited to unburned islands and what remains of riparian vegetation. This loss of suitable habitat and forage abundance is likely to result in displacement, reproductive failure, and/or mortality of individual pygmy rabbits in big sagebrush habitat that burned at moderate to high intensity

Other special emphasis species within the burned area include redband trout (Oncorhynchus mykiss gairdneri). There are approximately 70.0 miles of fish-bearing (redband trout) streams within the Murphy Complex: Wildhorse Zone. The redband trout is designated as a Nevada State sensitive (S2) species (http://heritage.nv.gov/lists/fishes.html). Logging, mining, agriculture, grazing, dams, over harvest and hybridization and competition with other trout contributed to the decline of redband trout abundance, distribution and genetic diversity in the Columbia River Basin (Williams et al. 1989; Behnke 1992). Consequently, many populations are restricted to isolated headwater streams that may serve as refugia until effective conservation and rehabilitation strategies are implemented. Long-term persistence of these populations is threatened by loss of migratory life history forms and connectivity with other populations, which is critical to maintaining genetic diversity and dispersal among populations (Rieman and McIntyre 1995). Despite their broad distribution, few strong populations exist. Known or predicted secure populations inhabit 17 percent of the historic range and 24 percent of the present range (Lee et al. 1997). Furthermore, Lee et al. (1997) reported that only 30 percent of the watersheds supporting spawning and rearing populations were classified as strong populations.

Post-fire erosion and sediment delivery are expected to result in increased sediment storage in beaver complexes and depositional stream reaches within and immediately downstream from the Murphy Complex: Wildhorse Zone burned area. The resulting sediment deposition is likely to render a portion of the occupied redband trout habitat unsuitably shallow and decrease the macroinvertebrate production of the affected surface waters. This loss of suitable habitat and prey abundance is likely to result in displacement, reproductive failure, and/or mortality of redband trout in affected sites within the Murphy Complex: Wildhorse Zone. There is also a potential for channel reorganizing events to be triggered by moderate to high-intensity rainfall in extensively burned drainages. Where they affect occupied stream reaches, post-fire channel reorganizing events are likely to extirpate local populations of trout and render the affected habitat unsuitable for several years.

Approximately 34,203 acres of critical winter range for mule deer were affected within the burned area. Short-term loss of forage species will cause the deer to focus on to unburned areas within the fire and to shift to areas outside the fire perimeter. Inter and intra-species competition for available forage may increase until shrubs, forbs and grasses grow. Most of the shrubs within the fire area were killed by the fire and will not resprout. The majority of the grass species will resprout as soon as climatic conditions allow. The loss of productivity of critical winter range for mule deer is the top priority issue identified by NDOW for the Murphy Complex: Wildhorse Zone burned area. Particular concern was expressed regarding high vegetation mortality of key shrub species (mountain big sage and basin big sage) on lower-elevation slopes and valley bottoms along the Bruneau River and Meadow Creek.

Cultural Resources – The Wildhorse Zone of the Murphy Fire Complex Cultural Resources Assessment addresses damages to known cultural resources as the result of fire effects, potential risks from post fire effects such as flooding, erosion, and looting/vandalism. It also addresses risks posed by emergency stabilization treatments designed to protect other values at risk. Consultation with the Nevada State

Historic Preservation Office clarified which acreage the plan would address, and that additional consultation would be done by the Humboldt-Toiyabe National Forest specific to treatments that may affect cultural resources. Results from record searches at the Humboldt-Toiyabe National Forest's Mountain City Ranger District and the BLM's Elko Field Office revealed that known site density is relatively low within the fire boundary. However, it should be cautioned that much of the area has not been inventoried for cultural resources. Of the currently known/documented sites, ranching and mining comprise the majority of site types. Of interest, over half of the sites are prehistoric or ethnographic. The Duck Valley Shoshone-Paiute Tribes identified areas of high sensitivity/ cultural concern within the burn. It was observed that two tribal graves within the fire were burned over and sustained minimal damage through vegetation removal and heat spalling of rock. Many sites are located along drainage bottoms and slopes and evidence of soil movement and wind erosion were observed in these areas. Cultural resources in such locations may be susceptible to both erosional and depositional processes.

There were 35 Forest Service sites within the fire boundary and at least eight known cabins and a number of outbuildings were burned down during the fire. Other prehistoric and ethnographic sites were also burned over. Illegal surface collection and digging are known in the general area but, up to now, only specific high value sites have been targeted. Low artifact yield and disbursed nature of the prehistoric, ethnographic and historic ranching/mining sites, coupled with minimal evidence of looting/vandalism in the fire area does not support additional law enforcement patrols at this time. Treatments proposed to address road and culvert work may have the potential to affect Historic Properties. Archaeological survey costs are included in those specifications. Consultation with the Duck Valley Shoshone-Paiute Tribes on cultural resource concerns within the Bruneau River, Meadow Creek, and other areas in the fire is necessary and will address the need for Tribal consultation findings. Both ends of the trestle flume across Bruneau River burned and collapsed. This has destabilized the remaining portion over the river. It is on Nevada Department of Wildlife lands. This and other non-specification observations and findings will be passed on through management recommendations to the appropriate agencies.

Environmental Compliance - This section documents consideration given to the requirements of specific environmental laws in the development of forest lands within the Wild Horse Zone of the Murphy Fire Complex Burned Area Emergency Stabilization Plan. Specific consultations initiated or completed during development and implementation of this plan are also documented. The following executive orders and legislative acts have been reviewed as they apply to the Burned Area Emergency Stabilization Plan:

- National Historic Preservation Act (NHPA) – The BAER Archeologist contacted Ms. Alice Baldrica, from the Nevada SHPO's (State Historic Preservation Officer) office to advise the SHPO that the National Interagency BAER Team was preparing an Emergency Stabilization (ES) plan to address post-fire effects that may result from the Murphy Fire Complex: Wildhorse Zone incident. It was conveyed to Ms. Becker that the ES plan may contain treatments that could potentially affect Historic Properties. In that event, it was communicated to Ms. Becker that the lead agency on the incident addressed in the Murphy Complex: Wildhorse Zone BAER Plan (FS) would fully comply with Section 106 of the National Historic Preservation Act, as amended and under its implementing regulations as provided under 36 CFR Part 800.
- Karen Kumiega zone archeologist for the Humboldt-Toiyabe National Forest, Ted Howard, Cultural Coordinator for the Duck Valley Shoshone-Paiute Tribes, and Bryan Hockett, archeologist for the BLM/Elko Field Office were contacted about cultural resources concerns.
- Executive Order 11988: Floodplain Management – No proposed treatments would occupy or modify floodplains and all proposed treatments are in compliance with this order.
- Executive Order 11990: Protection of Wetlands – No proposed treatments would result in long-term impacts to or loss of wetlands and all proposed treatments are in compliance with this order.
- Executive Order 12372: Intergovernmental Review – Coordination and consultation is ongoing with affected Tribes, Federal, State, and local agencies. A copy of the plan will be disseminated to all affected agencies.
- Executive Order 12892: Federal Actions to Address Environmental Justice in Minority and Low-income Populations – The actions proposed in this plan would result in no adverse human health or environmental effects for minority or low-income populations and Indian Tribes.

- Endangered Species Act – Section 7 Consultation: Selena Werbon from the U.S. Fish and Wildlife Service (FWS) Nevada State Office and Barb Cheney, FWS Idaho State Office was contacted on July 30 by telephone regarding Endangered Species Act Section 7 consultation strategy for the Murphy Complex: Wild Horse Zone emergency stabilization effort. The primary species of concern identified for consideration in Endangered Species Act consultation were the Bull trout, Bald eagle and Columbia spotted frog. Based on current information it was determined that the Murphy Complex: Wildhorse Zone Fire had no affect to the federally listed bull trout and bald eagle, therefore not requiring section 7 consultation. There is possibly an adverse affect to the Columbia spotted frog (candidate species) that will require conferencing between the Forest Service and the U.S. Fish and Wildlife Service regarding suppression, suppression rehabilitation, and emergency stabilization treatments. The Humboldt-Toiyabe National Forest Mountain City District will follow-up on conferencing between the FS and U.S. Fish and Wildlife Service for the fire and post-fire rehab activities on their lands as per standard practice. In addition, a decision memorandum will be completed by the Humboldt-Toiyabe National Forest.
- Clean Water Act: Including the removal of the bridge at Hicks Summit and construction of the low water crossing where Road 745 meets FS Road 055 and crosses Meadow Creek, all proposed treatments are in compliance with this Act and long-term impacts are considered beneficial to water quality. The bridge removal and low stream low water crossing completed during the suppression of the fire will not impact Meadow Creek a tributary of the Bruneau River.
- Clean Air Act: Implementation of treatments proposed in this plan may result in short-term localized impacts to air quality due to equipment emissions and/or increases in particulates during ground based activities. However, stabilization of the burned watershed would have long-term beneficial effects on air quality by reducing the potential for soil erosion. There is one Class I airshed just to the east of the burn in the Jarbidge Wilderness that was the first designated wilderness area in Nevada. Implementation of treatments will benefit this important Class I airshed.

Consultations - Scoping meetings were held in the town of Elko. On July 30, a scoping meeting was held with the BAER team and representatives of the NFS, BLM, Nevada Division of Forestery, and Nevada Department of Wildlife. Representatives from the BLM in Idaho were also involved in the meeting by conference call. Later in the day FWS representatives from Nevada and Idaho were involved in a conference call with the wildlife biologist BAER team representative, FS biologists and Nevada Department of Wildlife. On August 1, 2007, representatives of the different agencies and the team leader of the BAER Team met with the Governor of Nevada, two State Senators and the Elko County Commissioners in Elko to discuss rehabilitation efforts. On August 5 representatives from the BAER Team met in person with BLM representatives from Idaho to discuss ongoing BAER planning by the two planning teams. BLM is completing a separate BAER plan for the Muphy Complex: Castleford Zone. On 08/07, the BAER Team Leader met with the Elko County Commissioners and a Department of Transportation Road Engineer to discuss road treatments. On 08/09 the BAER Team Leader met with the Regional Forester and Forestry Supervisor to discuss the BAER Plan and sign the 2500-8. Meeting participant lists are available in the documentation files and are summarized below by organization. Additionally, every evening at 2000hrs consultation with agency representatives and the BAER team occurred in the FS office in Elko from 07/30 to 08/04 and at 1900 hrs starting 08/05 to 08/09. Telephone and email were used to share information and concerns from other organizations outside of the local area.

The following organizations were consulted in the development of the Murphy Fire Complex: Wildhorse Zone BAER Plan:

- Humboldt-Toiyabe National Forest, Mountain City Ranger District, Ruby Mountains/Jarbidge Ranger District
- Bureau of Land Management, Twin Falls Field Office
- Bureau of Land Management, Elko Field Office
- Duck Valley Shoshone-Paiute Tribes
- Nevada Department of Wildlife
- Nevada Division of Forestry

- Natural Resources Conservation Service
- U.S. Fish and Wildlife Service Nevada State, and Idaho Offices for Ecological Services (see summary above)
- Nevada State Historic Preservation Office (see summary above)
- Elko County Board of Commissioners

Emergency Stabilization Recommendations
Based on aerial and ground surveys the BAER Team identified the treatments for implementation for USFS managed lands. The following treatments recommended for USFS lands are in accordance with Forest Service Manual 2523 and Forest Service Handbook 2509.13, Burned Area Emergency Response Policy and include:

- Hicks Ford Improvement
- Upsize Culverts
- Inspect and clean culverts and bridge
- Post-storm road patrol and maintenance
- Streambank and road stabilization
- Native American consultation
- Noxious weed treatment
- Noxious weed/invasive detection
- Monitor critical habitat
- Protective fence
- Install and replace safety signs

The BAER Team conducted a closeout presentation to the Humboldt-Toiyabe National Forest, Nevada Department of Wildlife, Nevada Division of Forestry, Elko BLM Field Office, and other agency representatives on August 10, 2007, providing issues, observations, findings and recommendations. The BAER Team provided detailed information of the proposed emergency stabilization treatments to the agency administrators and staff. The Team recommends hiring of a project manager (implementation leader) as soon as possible to ensure treatments are initiated as quickly as possible.