MURPHY COMPLEX Fire
EMERGENCY STABILIZATION PLAN

BLM / TWIN FALLS DISTRICT/JARBIDGE FIELD OFFICE
IDAHO STATE OFFICE

FIRE BACKGROUND INFORMATION

Fire Name	Murphy Complex
Fire Number	DR62
District/Field Office	Twin Falls District /Jarbidge Field Office Boise District/ Bruneau Field Office Elko District / Elko Field Office
Admin Number	ID-210, ID-120, NV-010
State	Idaho, Nevada
County(s)	Owyhee, Twin Falls, Elko
Ignition Date/Cause	7/16/07 Lightning
Date Contained	8/02/07
Jurisdiction	*Acres*
BLM	425,815 Jarbidge Field Office 10,673 Bruneau Field Office 263 Elko Field Office
State	25,984
Private	41,947
USFS	88,866
Military	1
Total Acres	593,549
Total ES Plan Costs	**$13,147,000**

Status of Plan Submission (check one box below)

X	Initial Submission of Complete ES Plan
	Updating or Revising the Initial Submission
	Amendment

PART 1. - EMERGENCY STABILIZATION PLAN SUMMARY

BACKGROUND

The Murphy Complex, which originally consisted of the Rowland, Elk Mountain, Smith Crossing, and Buck Flat Fires, ignited on July 16, 2007 as a result of lightning. The fire burned across portions of 3 BLM Field Offices (Jarbidge, Bruneau and Elko), portions of the Humboldt - Toiyabe National Forest, approximately 48 sections of Idaho state managed lands as well as significant portions of private lands. The fire burned a total of 593,549 acres and had a perimeter that was 295 miles in length. This plan covers land managed by the BLM Jarbidge and Bruneau Field Offices. The Elko Field Office is not proposing any emergency stabilization work under this plan.

The fire had tremendous impacts to sage-grouse habitat, mule deer winter range, bighorn sheep habitat, and healthy sagebrush steppe habitat left within southern Idaho and northern Nevada. Severe impacts to cultural resource values, forage for wildlife and livestock, watershed health and aquatic species also occurred as a result of this fire. The landscape level impacts are expected to take many years to fully address and likely extend well past the life of this plan.

Planning Emergency Stabilization and Rehabilitation treatments for a fire of this size required a process to delineate and prioritize treatment areas. A ground survey completed by six separate Interdisciplinary Teams delineated vegetation mortality polygons. These polygons were then compared to a Burned Area Reflectance Classification map. Unburned islands were removed from proposed treatment maps. Using existing vegetation maps, Ecological Site Inventory points from 2006, and a vegetation mortality map, proposed seeding polygons were delineated. This information was also used to determine appropriate seed mixes. Seeded species are based on site potential, while considering seed availability and cost. Dominant grass species were selected based on site potential and pre-burn vegetation data. Forbs selected are based on the site as well as what is commercially available. Consideration was also given to vegetation structural diversity of the site, fuel loading and ability to compete against invasive species. For example Sandberg's bluegrass was included in the same seed mixes because it is native to the field office, has lower fuel loading characteristics (lower flame lengths and fuel continuity) and is known to compete against cheatgrass.

The creation of fuel breaks and the use of fire resistant species falls outside the scope of this plan and will be addressed at a later date under the fuels management program or Healthy Lands Initiative. The interdisciplinary team analyzed opportunities for fuel modification but logistically seeding for fuels modification and completing landscape level treatments is not feasible given the implementation timeframes allowed for in this Emergency Stabilization Plan.

Erosion control structures and treatments were also outlined using the ID team process. Ground truthing of stream channels and as well as aerial observations were used to determine potential problem areas. Erosion prediction models, such as WEPP and ERMiT, were used with the assistance of a national DOI BAER team to predict the amount of erosion from the fire and the effectiveness of the proposed treatments.

Temporary fences were discussed and planned to minimize the miles of fencing while still allowing for protection and recovery of the burned area. Precautions were taken to limit impacts to wildlife habitat

such as using let down fences and fence markers. Where possible, the management of livestock through water sources and the use of existing fences were prioritized to limit the miles of temporary fence constructed as well as to minimize impacts to livestock operations.

COST SUMMARY TABLE

JARBIDGE FIELD OFFICE

Action/ Spec. #	Planned Action	Unit	# Units	Unit Cost	FY07	FY08	FY09	FY10	Action/ Spec. # Totals
S1	**Plan & Treatment Design Prep.**	WM's	1	$81,000.00	$26,000	$19,000	$18,000	$18,000	$81,000
S2	**Ground Seeding**	Acres	63,108	$150.33	$8,747,000	$697,000	$35,000	$8,000	$9,487,000
S3	**Aerial Seeding/Harrowing**	Acres	13,195	$118.30	$1,505,000	$56,000	$0	$0	$1,561,000
S4	**Seedling Planting**	No.	1,600	$8.75	$0	$14,000	$0	$0	$14,000
S5	**Noxious Weeds**	Acres	425,815	$1.01	$0	$428,000	$0	$0	$428,000
S6	**Soil Stabilization**	Acres	67	$686.57	$0	$46,000	$0	$0	$46,000
S7	**Protective Fencing**	Acres	103	$5,330.10	$473,000	$25,000	$0	$51,000	$549,000
S8	**Cattle Guards**	No.	2	$6,500.00	$0	$13,000	$0	$0	$13,000
S10	**Cultural Protection**	Acres	425,815	$0.22	$22,000	$52,000	$17,000	$3,000	$94,000
S13	**Tree Hazard Removal**	Miles	12	$1,250.00	$0	$15,000	$0	$0	$15,000
S15	**Closures**	No.	1	$0.00	$0	$0	$0	$0	$0
S16	**Monitoring**	Acres	425,815	$0.56	$0	$80,000	$80,000	$80,000	$240,000
TOTAL COSTS					$10,773,000	$1,445,000	$150,000	$160,000	$12,528,000

BRUNEAU FIELD OFFICE

Spec. #	Planned Action	Unit	# Units	Unit Cost	FY07	FY08	FY09	FY10	Spec. # Totals
S1	Planning	WM	0	7,407	2,000	0	0	0	2,000
S2	Ground Seeding	Acres	2,400	23	0	55,000	0	0	55,000
S2	Ground Seed Purchase	Acres	2,400	181	216,000	219,000	0	0	435,000
S2	Ground Seeding Cultural Clearance	Acres	2,400	17	40,000	0	0	0	40,000
S5	Noxious Weeds	Acres	7802	1.28	0	10,000	0	0	10,000
S6	Soil Stabilization	No.	12	1,000	0	12,000	0	0	12,000
S7	New Protective Fence	Miles	4	6,000	0	18,000	0	6,000	24,000
S10	Cultural Protection	No.	5	600	0	3,000	0	0	3,000
S15	Closures	Acres	7,802	0.26	0	2,000	0	0	2,000
S16	Monitoring	Acres	7,802	5	0	12,000	12,000	12,000	36,000
	TOTAL COSTS		2,400	258	258,000	331,000	12,000	18,000	619,000

MAPS
The following maps are attached to display treatment areas.

1. Jarbidge Field Office ES Fence map
2. Jarbidge Field Office ES Seeding map
3. Jarbidge Field Office ES Motorized Vehicular Closure map
4. Bruneau Field Office ES map (includes all treatments)

LAND USE PLAN CONSISTENCY

Jarbidge Field Office Land Use Plan Consistancy

The applicable land use plan for the ES project area is the 1987 Jarbidge Resource Management Plan (RMP). The fire area includes the following MUAs; MUA 10 Bruneau-Jarbidge-Sheep Creek, MUA 11 Inside Desert, MUA 12 West Devil, MUA 13 East Devil, MUA 15 Jarbidge Foothills, and MUA 16 Diamond A.

Treatment/Activity: ***S13 Hazard Tree Treatment*** The RMP states under the recreation section that, "Recreation facilities are provided to meet existing or anticipated demand, for public safety and to protect recreation resources." Treatment of the hazard trees along the Jarbidge River will help provide a safer recreation experience and is in conformance with the RMP.
Treatment/Activity: ***S2 Ground Seeding*** The RMP states that "sage grouse habitat should be improved through seeding and rehabilitation activities." The RMP states under the Soil, Water, and Air Section that, "minimize soil erosion by maintaining good, perennial vegetation cover on all sites." The RMP also states under the range improvement section that, "interseeding and reseeding projects in MUA's with objectives to maintain wildlife habitat…will use shrub, forb, and grass seed mixture that

are normally found in that type of ecological zone." The proposed seeding will help stabilize soils, reduce non-native species, and improve wildlife habitat. The treatment is in conformance with the RMP.

Treatment/Activity: ***S3 Aerial Seeding*** The RMP, under the Soil, Water, and Air Section, states that BLM should "minimize soil erosion by maintaining good, perennial vegetation cover on all sites." The proposed aerial seeding will help to accomplish the above goal within the Jarbidge River WSA while still minimizing impacts to the area. It is also in conformance with the RMP.

Treatment/Activity: ***S4 Seedling Planting (shrub/tree***) The RMP states under the Riparian and Aquatic Habitat section that, "Riparian and wetland habitat will have a high priority for protection and improvement in accordance with national policy." It also states that there should be a buffer zone of sufficient width (100 to 300 feet) to protect riparian vegetation, fisheries, and water quality. The proposed willow planting to stabilize the stream banks is in conformance with the RMP.

Treatment/Activity: ***S6 Soil Stabilization (other than seeding/planting)*** The RMP states under the Soil, Water, and Air Section that "soils will be managed to maintain productivity and minimize erosion." The proposed treatment to install straw bale structures to minimize soil movement is in conformance with the RMP.

Treatment/Activity: ***S7 Protective Fence/Gate*** The RMP states under the Terrestrial Wildlife section that, "Existing fences will be modified where specific wildlife needs are not being met and that all new fences will be built to allow for wildlife passage." No permanent fence is proposed but the temporary fence has been designed to be wildlife friendly and the permanent fence repair will include measures for bringing old fences up to wildlife standards. These treatments are also in conformance with the RMP.

Treatment/Activity: ***S8 Cattle Guard*** In the Range Improvements and Treatments section the RMP states that, "cattle guards will be considered part of the fence and installed as deemed necessary." The installation of 2 cattle guards is in compliance with the RMP.

Treatment/Activity: ***S15 Closures (livestock)*** The RMP states under the Fire Management Section that, " all grazing licenses issues that include areas recently burned and/or seeded will include a statement concerning the amount of rest needed in the seedings or burn area." The grazing closure for portions of the burn area is in conformance with the RMP.

Treatment/Activity: ***S15 Closures (OHV)*** The RMP states under the Recreation section that "some areas may be subject to special restrictions to protect resources or eliminate or reduce conflicts among users." The motorized vehicle closure will help protect resources and eliminate potential conflicts and is in conformance with the RMP.

Treatment/Activity: ***S10 Cultural Protection-(Stabilization and Patrol)*** The RMP states that "significant cultural resources should be protected through management and special designations." The stabilization measures and additional law enforcement patrol will serve to protect cultural resources and therefore is in compliance with the RMP.

Treatment/Activity: ***S5 Noxious Weeds Treatment*** The RMP states under the noxious weed section that, "BLM will control the spread of noxious weeds on public lands where possible, where economically feasible, and to the extent that funds are prioritized for that purpose." The noxious weed treatment is in compliance with the RMP.

Special Note of Concern: The following table of allotments are subject to the September 2005 Stipulated Settlement Agreement in the case of Western Watersheds Project v. Idaho State Director K Lynn Bennett. The Settlement Agreement specifies interim grazing management plans, terms and conditions for these allotments pending completion of a revised Jarbidge RMP.

Allotment Name	
Antelope Springs	East Juniper Draw
Blackrock Pocket	Echo 4
Camas Slough	Grassy Hills
Cedar Butte/Devil Creek	Juniper Butte
Cedar Creek	Noh Field
Coonskin	Pigtail Butte
Crawfish	

The Inside Desert and Poison Butte allotments are subject to the April 2003 terms and conditions outlined in the memorandum decision and order in the case of Committee for the High Desert v. Edward Guerrero, Jarbidge Field Manager, Bureau of Land Management. The order specifies interim grazing management plans as well as terms and conditions for these allotments.

Bruneau Field Office

The applicable land use plan for the Bruneau Planning Unit (BPU) is the 1983 Bruneau Management Framework Plan (MFP). Relevant MFP objectives include:

1) The burned area within the BPU include portions of the Bruneau-Jarbidge River Area of Critical Environmental Concern (ACEC), which is managed to: protect, maintain, or improve bighorn sheep habitat and to protect and maintain the cultural, geologic, scenic, and natural values present in the area (p. II-68). The burned area also contains the Triplet Butte Research Natural Area. This area is isolated from grazing and is managed primarily for sensitive plants.

2) Maintain stability of 408,300 acres classified as moderate, high, and critical erosion hazard by reducing or minimizing wind and water erosion. WS-1:

3) Protect and/or improve endangered species habitat within the BPU. WL-1:

4) Manage sensitive species habitat in the BPU to maintain or increase existing and potential populations. WL-2:

5) Manage to provide adequate habitat for 100 Bighorn Sheep in the West Fork of the Bruneau River. Improve or maintain 190 miles of river otter habitat in the Snake, Owyhee, and Bruneau rivers…. WL-2.1

6) Manage mule deer spring, summer, and fall, and winter range, and pronghorn habitat in the BPU to obtain good ecological condition, and to provide adequate food, cover, and water.…Establish seedings or plantings of palatable shrub species in suitable areas of crucial deer winter range that presently have less that 10 per cent palatable shrub composition by weight. WL-3.1, 3.2, 3.3,

7) Manage 520,000 acres of sage-grouse range in the BPU to improve nesting, brood rearing, and winter habitats by: improving all poor and fair big sagebrush, meadow, and riparian ecological sites to

good ecological condition. WL-4.4

8) Improve fisheries physical habitat to fair and good condition in 144 miles of stream and improve chemical water quality in 18 stream sites to tolerance levels for trout. Give special priority to improving habitat for red-band trout, a sensitive species. AWL-2.

9) Protect and manage seasonal flows in perennial and intermittent streams to maintain aquatic/riparian habitat condition on 96 miles of stream in good condition. Give priority to habitat maintenance for red-band trout. AWL-3.

10) Range Management RM-3: Allocate livestock forage…to maintain and/or enhance the range and soil resources

11) Cultural Resource Management CRM 2.3: Stabilize cut banks and protect cultural resource sites on a case by case basis in coordination with other resource uses to resolve conflicts as they occur. Visual Resource Management VRM-1: Manage all public lands in a manner which will protect and maintain the existing visual qualities, provide for enhancement where consistent with management policies, and provide for rehabilitation of land which presently do not meet the visual quality standards of surrounding lands.

12) R-1: Provide high quality recreation opportunities commensurate with present and future demand.

The proposed treatments in this ER plan conform to the 1983 Bruneau MFP. The Interdisciplinary team developed objectives and treatments which respond to the identified issues and concerns. The BLM would evaluate this plan based on the success or failure in meeting these objectives.

PART 2. – EMERGENCY STABILIZATION ISSUES

Objectives: "determine the need for and to prescribe and implement emergency treatments to minimize threats to life or property or to stabilize and prevent unacceptable degradation to natural and cultural resources resulting from the effects of a fire." 620DM3.4

Priorities: 1). Human Life and Safety, and 2). Property and unique biological (designated Critical Habitat for Federal and State listed, proposed or candidate threatened and endangered species) and significant heritage sites. 620DM3.7

Emergency Stabilization Issues

Jarbidge Field Office

1. Human Life and Safety: The Jarbidge and Bruneau Rivers are known for its white water recreation opportunities. The fire burned several juniper trees along the canyon that may become a hazard to rafters and kayakers. The portions of the trees that are within open water were evaluated and some may need to be adjusted in order to allow for safe passage by float boats.

2. Soil/Water Stabilization: As a result of the amount of upland vegetation lost within the burn, several sections of road may need enlarged culverts as well as culvert maintenance in order to handle the expected increase in runoff.

Portions of the Jarbidge and Bruneau Canyons as well as other small tributaries (Columbet and Dorsey Creeks) were burned as a result of this fire. The severity of the burn in this area was damaging enough to the shrubs that they will likely not resprout. Several drainages within the burn perimeter will require the planting of fast growing shrubs in the riparian areas to limit the potential for channel erosion and debris flows. Temporary exclosure fences will be needed to protect the riparian plantings.

Seeding of perennial grasses within the burn area will be required to help stabilize soils. Signs of wind erosion are already present throughout the burn area.

The burned area is at risk from cross-country (off-road) vehicle use. Such use could increase erosion and damage naturally re-grown or seeded vegetation. Vehicle use should be limited to existing established roads within the entire burned area.

3. Designated Critical Habitat for Federal/State Listed, Proposed, or Candidate Species
Portions of the Jarbidge canyons which were affected by the fire include proposed critical habitat for bull trout which are listed under the Endangered Species Act as a Threatened species. The affected reaches are located in the Jarbidge Canyon below the confluences of the East and West Forks of the Jarbidge River. This reach of the river provides overwintering habitat for six subpopulations of bull trout. Direct affects from burned areas in the Jarbidge Canyon and indirect affects from burned tributaries to the Jarbidge Canyon, such as Dorsey Creek and Columbet Creek, can be expected as a result of the fire. The primary affect to the habitat is increased sediment loads and downed woody debris in the Jarbidge River canyon.

The Columbia spotted frog is a Candidate species. The fire burned uplands and portions of the riparian zone along Columbet Creek where this species had been documented.

Habitat for BLM Sensitive Species
Although not a species with federal status, portions of the slickspot peppergrass (*Lepidium papilliferum*) management area were affected by the fire. The burn area also contained known populations of the special status plants, Bruneau River Phlox (*Leptodactylon glabrata*) and Davis Peppergrass (*Lepidium davisii*).

Greater sage-grouse, Columbian sharp-tailed grouse, mountain quail, California bighorn sheep, ferruginous hawk, pygmy rabbit, loggerhead shrike, prairie falcon, sage sparrow, and Brewer's sparrow habitat were all present within the burned area. The biggest impact is likely to nesting habitat for sage-grouse. According to Idaho Dept. Fish & Game data over 70 sage-grouse leks are within the fire perimeter, however, this includes a few leks that have not been active for over 15 years. Leks are indicative of contiguous nesting, brood rearing, and winter habitat. Within the field office about 70% of the remaining sage-grouse nesting habitat burned and nearly 50% of the occupied California bighorn sheep habitat burned, including areas that were known to have substantial numbers of bighorn. Some of the bighorn are likely to concentrate in the remaining habitat. Over 80% of the known occupied pygmy rabbit habitat in the Jarbidge Field Office was burned in the fire. About 70% of the nesting habitat for Brewer's sparrow, sage sparrow, and loggerhead shrike burned. Shrub steppe habitat around 17 ferruginous hawk nests burned. Initial inventory indicates that 3 nest trees were burned down. However, the fire altered habitat for the prey base used by ferruginous hawks as well as eliminated shrubs used as nesting material for this species. The majority of the known occupied Columbian sharp-tailed grouse and mountain quail habitat burned in the fire.

Redband Trout are a BLM Sensitive species that exist in the perennial tributary streams in the Jarbidge foothills and in the Jarbidge River. Several of the streams occupied by redband trout, such as Deadwood, Clover, Deer, Deep, Devil, and Three Creeks, burned and may require stabilization or planting to stabilize the stream channel. Burning of junipers in Clover and Deep Creeks may result in an increase in water temperature due to the loss of streamside shading.

Other Wildlife Resources
Over 60% of the field offices big game winter range burned. Mule deer, some antelope, and elk from Nevada winter in Idaho in this area. This is in addition to big game in Idaho that live year round in the area. Previous wild fires resulted in substantial reductions in bitterbrush and big sagebrush used by big game as winter browse.

4. **Critical Heritage Resources:** Approximately 1,250 cultural resources are presently recorded in the area burned by the Murphy Complex along with an unknown number of unrecorded sites. The integrity of many of these sites is threatened by wind erosion and illegal artifact collecting which are facilitated by the lack of vegetative cover. It is critical to re-establish vegetative cover as quickly as possible to stabilize the sites and to protect their locations. Impacts to cultural

resources related to the emergency stabilization treatments proposed in this plan can be eliminated by locating and avoiding sites prior to drill seeding the burned area. Sites located in areas of the Murphy Complex that are not being physically treated are less susceptible to prolonged wind erosion since they are in areas that burned at low or moderate intensities. These areas are expected to recover naturally and more quickly than the proposed treatment areas. Threats related to looting of archaeological properties can be mitigated by dedicated law enforcement and staff patrols.

Among the cultural resources affected by the fire were four rock art sites. These sites should be stabilized to prevent deterioration or complete loss of the pecked or painted images.

5. Invasive Plants: Seeding of perennial grasses as well as noxious weed detection and treatment will help limit noxious weeds spread and invasive plants spread within the burn area. There are known locations of hoary cress, black henbane, spotted knapweed, Canada thistle, bull thistle, morning-glory, Russian knapweed, Scotch thistle, spotted knapweed, and diffuse knapweed within and adjacent to the burn area. Invasive plants known to be present include cheatgrass, bur buttercup, clasping-leaf peppergrass, tansy mustard, tumble mustard, and blue mustard.

Many out of District resources were brought in to assist with the suppression of the fire. A weed wash station was established but even with those mitigation measures in place, the probability of new weed populations within the burn area is high.

Ecological Site Inventory Data (ESI) from 2006 was used to delineate areas of concern for invasive species, specifically cheatgrass. While these areas may not become apparent immediately, they should be monitored to determine if future treatment needs to occur. Approximately 80,000 acres was identified using ESI data that will need to be monitored to determine cheatgrass expansion.

Bruneau Field Office

1. Human Life and Safety: The Bruneau River is known for its white water recreation opportunities. The fire burned several thousand acres in the Bruneau River watershed which has the potential to deposit debris into the canyon that can become a hazard to rafters and kayakers. The drainages that flow into the Bruneau River were evaluated and erosion control structures may be necessary to manage soil and debris movement into the canyon.

2. Soil/Water Stabilization:
The post-fire Bruneau River already is muddy from upstream sediment runoff from the Murphy Complex burned area. The area to be drill seeded currently has active gullies. Without the soil stabilization characteristics of perennial grasses, these gullies would increase in size and deliver substantial amounts of sediment to drainages that flow into the nearby (1/2 mile away) Bruneau River. Signs of wind erosion are already present throughout portions of the burn area. Seeding of perennial grasses within the burn area will be required to help stabilize soils.

The burned area is at risk from cross-country (off-road) vehicle use. Such use could increase

erosion and damage naturally re-grown or seeded vegetation. Vehicle use should be limited to existing established roads within the entire burned area.

The elevation of the drill and aerial seeded area is between 5,400 feet and 6,100 feet and averages 10 to 13 inches of precipitation a year. The precipitation is adequate to reestablish perennial grasses.

3. Designated Critical Habitat for Federal/State Listed, Proposed, or Candidate Species:
Redband Trout, a BLM Sensitive species is present upstream and downstream of the burned area in the Bruneau River. The Murphy Complex burned area could increase sediment load and woody debris in the Bruneau River.

Nesting habitat for sage grouse, a BLM sensitive species, has been altered by the fire. According to BLM data, one sage-grouse lek is located within the fire perimeter. Two leks are located nearby. Sage-grouse winter habitat burned in the fire.

Nesting habitat for Brewer's sparrow, sage sparrow, and loggerhead shrike burned. The fire altered habitat for the prey base used by ferruginous hawks as well as eliminated shrubs used as nesting material for this species.

Other Wildlife Resources
All of the Triplet Butte Area of Critical Environmental Concern (ACEC), designated California bighorn sheep habitat, burned including areas that were known to have substantial numbers of bighorn sheep.

The burned area provides winter habitat for mule deer, antelope, and elk. The McDonald Creek fire burned the Scotts Table area in 2000. In the fall and winter of 2000 and 2001, the burned area was aerially seeded with sagebrush and rabbitbrush. Shrubs in the McDonald Creek burned area were common before the Murphy Complex fire burned the area again.

4. Critical Heritage Resources:
Cultural resources are located in the area burned by the Murphy Complex. The integrity of these sites is threatened by wind erosion and illegal artifact collecting which are facilitated by the lack of vegetative cover. It is critical to re-establish vegetative cover as quickly as possible to stabilize the sites. Impacts to cultural resources related to the emergency stabilization treatments proposed in this plan can be eliminated by locating and avoiding sites prior to drill seeding the burned area. Threats related to looting of archaeological properties can be mitigated by dedicated law enforcement patrols.

5. **Invasive Plants:**
Seeding of perennial grasses as well as noxious weed detection and treatment will help limit the amount of spread of invasive species and noxious weeds within the burn area. Invasive plants also known to be present include cheatgrass, clasping-leaf peppergrass, and tumble mustard. Noxious weeds of concern are spotted knapweed, Canada thistle, bull thistle, Russian knapweed, Scotch thistle, and diffuse knapweed

PART 3. - DESCRIPTION OF TREATMENTS

Jarbidge Field Office Treatments

Issue 1. Human Life and Safety

Treatment/Activity: *S13 Hazard Tree Treatment*

A. Treatment/Activity Description. During the fire, the Jarbidge River burned from the East and West Forks to the confluence of Poison Creek. The fire burned the hillslopes above the river and the juniper covered gravel bars along the river. Field observations have determined that some burned juniper trees have fallen into the river. Although this process creates good fish habitat, it can be a hazard for kayakers and rafters. To address safety concerns, we propose to remove or modify fallen trees that pose an immediate safety risk to floaters. Other trees that are not a safety risk will remain in the river to improve overwintering habitat for bull trout and redband trout. To accomplish this work, an interdisciplinary crew (including a Recreation Planner and Fish Biologist), will access the river to identify hazard trees and reduce the safety risk. This treatment will require further analysis and may require ESA consultation with the USFWS. These requirements will be met prior to implementing the project.

B. How does the treatment relate to damage or changes caused by the fire? Fire in riparian areas can contribute large amounts of woody debris to the stream channel in a short amount of time. This woody debris supports the formation of deep pools and hiding cover for fish, but can become a safety risk for floaters. Removing or modifying only the hazard trees that pose an immediate safety risk to floaters will ensure that as much woody debris as possible is left in the stream channel to support fisheries values. This treatment is expected to be effective because it will be completed in the spring prior to floaters using the river. However, it is recognized that high water events can shift woody debris within and along the stream channel and these changes in river obstructions are an inherent hazard to rafting and kayaking a river.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The proposed hazard tree treatments complies with management direction in the Jarbidge RMP (see Land Use Plan Consistency, page 4 (7), management direction for watersheds containing federally listed fish species (INFISH Appendix E), and complies with the existing Endangered Species Act consultation with US Fish and Wildlife Service for Normal Year Fire Rehabilitation Projects in the Jarbidge Field Office (Jan 2005). The project is cost effective because the proposed work can be accomplished with a relatively small crew (<5 people) and in a short amount of time (two weeks). This is the most cost effective method to reduce hazards to floaters in the Jarbidge River.

Issue 2. Soil/Water Stabilization

Treatment/Activity: *S2 Ground Seeding*

A. Treatment/Activity Description. 63,108 acres of drill seeding are proposed under the Emergency Stabilization Plan. This includes a total of 4 different seed mixes which were designed to improve treatment success in the different ecological sites and vegetation communities included within the burn. Prior to drill seeding, cultural resources that may be affected by the treatment will be identified and marked for avoidance. Avoided sites will be seeded by hand with the seed mix used in the surrounding area to stabilize site surfaces and

protect site locations.

B. How does the treatment relate to damage or changes caused by the fire? The objective of this treatment is to re-establish desirable perennial plant communities that would help reduce the competition from non-native invasive species such as cheatgrass. The portion of the burn targeted for treatment in this plan was determined to have a high vegetation mortality rating, where the native vegetation does not have a high probability of being able to recover on its own. Establishing perennial grass species on the site will reduce wind erosion. The seeding of forbs is not normally included in an ES plan, but rather under the BAR plan. In this case logistically all drill seeding will be completed at once, so only one pass with a drill is needed. Forbs are included to help maintain wildlife habitat, specifically sage grouse. Success is dependent on the amount of precipitation received after the drill seeding and other associated weather conditions.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The costs associated with drill seeding are typical for the Jarbidge Field Office. Pre fire Ecological Site Inventory data show that these polygons were dominated by native perennial bunchgrasses prior to burn. The fire effects within these polygons will favor the invasion of cheatgrass. The investment to return native species to the area and help out-compete cheatgrass is within policy outlined in the ESR handbook. It is more cost effective to treat the area before an invasion occurs than to eradicate cheatgrass and establish native species after invasion has occurred. The seed mix was developed using input from cooperating agencies and interested publics. This included adjusting species mix composition and application rates and adding additional polygons to meet objectives.

Thurbers Site Type Mix (13,139 acres)		***Bluebunch Mix (45,720 acres)***	
Species	**Rate (lbs/acre)**	**Species**	**Rate (lbs/acre)**
Sandbergs Bluegrass	1.1	Bluebunch Wheatgrass	5
Bottlebrush Squirreltail	3	Sandbergs Bluegrass	0.5
Bluebunch Wheatgrass	2.5	Bottlebrush Squirreltail	1
Lewis Flax	0.1	Balsamroot	0.3
Globemallow	0.1	Yarrow	0.01
Alfalfa	0.5	Alfalfa	0.5
Sainfoin	1.36	Four Wing	0.5
Total lbs / acre	***8.66***	***Total lbs / acre***	***7.81***
WSA Mix (14,643 acres)		***Idaho Fescue Mix (4,248 acres)***	
Species	**Rate (lbs/acre)**	**Species**	**Rate (lbs/acre)**
Bluebunch Wheatgrass	5	Idaho Fescue	2
Sandbergs Bluegrass	0.5	Bluebunch Wheatgrass	2.8
Bottlebrush Squirreltail	1	Sherman Big Bluegrass	0.5
Balsamroot	0.3	Small Burnett	0.04
Yarrow	0.1	Yarrow	0.01
Winterfat	0.5	Alfalfa	0.4
Four Wing	0.5	Sainfoin	1.5
Total lbs / acre	***7.9***	***Total lbs / acre***	***7.25***

*Please see attached seeding map for specific seed mix locations.

Treatment/Activity: *S3 Aerial Seeding*

A. Treatment/Activity Description: Approximately 3,039 acres in the Jarbidge River WSA will be aerially seeded and then covered with a harrow, chain, or other approved techniques to incorporate the seed in the soil. Another 10,156 acres within the WSA will be aerially seeded only due to the terrain which is not conducive to techniques for covering seed.

B. How does the treatment relate to damage or changes caused by the fire? The objective of this treatment is to re-establish desirable perennial plant communities that would help reduce the competition from non-native invasive species such as cheatgrass. The portion of the burn targeted for treatment under the ES was determined to have a high vegetation mortality rating, where the native vegetation does not have a high probability of being able to recover on its own. Establishing perennial grass species on the site will reduce wind erosion. Aerial seeding of forbs and shrub species will help maintain wildlife habitat within the burn area. Success is dependent on the amount of precipitation received after the aerial seeding and other associated weather conditions.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Pre fire Ecological Site Inventory data show that these polygons were dominated by native perennial bunchgrasses prior to the fire. The fire effects within these polygons will favor the invasion of cheatgrass within these areas. The investment to return native species to the area and help out-compete cheatgrass is within policy outlined in the ESR handbook. The treatment area is within a Wilderness Study Area and therefore requires modified treatments to limit impacts to the area and maintain its wilderness characteristics. It is more cost effective to treat the area before an invasion occurs than to eradicate cheatgrass and establish native species after invasion has occurred. The seed mix was developed using input from cooperating agencies and interested publics. This included adjusting species mix composition and application rates and adding additional polygons to meet objectives.

Treatment/Activity: *S4 Seedling Planting (shrub/tree)*

A. Treatment/Activity Description. A post-fire field review determined there is a section of Columbet Creek and two sections of Dorsey Creek with high burn severity along an unstable stream channel. All three areas are approximately one-half mile in length. Riparian plantings of rooted willow species (*Salix lasiandra, S. lutea*) are being proposed to stabilize the stream channel. Plantings will occur on the outside meander bends where the greatest erosion forces occur. Plantings will occur in the fall or spring when surface water is present in the stream channel. To protect the riparian plantings for Dorsey and Columbet Creeks, three small temporary riparian exclosures, totaling 3.5 miles, are being proposed. These exclosures will be four strand barbed wire, bottom wire smooth fences and will be constructed according to BLM specifications to protect wildlife and will be aligned to avoid adverse effects to cultural resources. These fences are temporary and will be constructed after the riparian plantings are completed.

B. How does the treatment relate to damage or changes caused by the fire? The stream reaches identified for treatment (Rosgen E-4) are highly sinuous and become very unstable if deep-rooted vegetation is not present to maintain streambank stability. The proposed plantings will expedite the stabilization of the portion of the streambank and channel that is most likely to erode during fall and spring run-off events. As these willow plantings become established, they

also will catch fine sediments in the stream channel that are expected to increase as a result of the fire.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The proposed riparian planting treatments are reasonable because they will replace vegetation that would normally be present to stabilize the stream channel. Since the treatment would replace what naturally occurs along the stream, they have a high likelihood of success. The treatments comply with management direction in the Jarbidge RMP (see Land Use Plan Consistency, page 4 (6), management direction for watersheds containing federally listed fish species (INFISH Appendix E), and complies with the existing Endangered Species Act consultation with US Fish and Wildlife Service for Normal Year Fire Rehabilitation Projects in the Jarbidge Field Office (Jan 2005). The project is cost effective because the proposed work can be accomplished by hand with a relatively small work crew (< 5 people) and in a short amount of time (two weeks). Not implementing the proposed treatment could result in a loss of channel stability that would introduce fine sediments into proposed critical habitat and overwintering habitat for bull trout and redband trout.

Treatment/Activity: *S6 Soil Stabilization (other than seeding/planting)*

A. Treatment/Activity Description. The fire burned numerous ephemeral and intermittent tributaries that drain into streams that are occupied by a BLM sensitive species redband trout. Treatments are proposed to reduce the amount of fine sediment from burned areas being introduced into fish bearing streams. See attached treatment maps for specific treatment locations. Certified weed free straw bales and/or straw waddles will be used to capture fine sediments and retain them on site so they do not mobilize during precipitation or runoff events and further destabilize the stream channel. Each structure will consist of approximately three straw bales placed perpendicular to the stream channel and will be anchored in place with wooden stakes. These structures will remain in place until the unstable soils have revegetated and stabilized.

B. How does the treatment relate to damage or changes caused by the fire? Before the fire, the upland and riparian vegetation would have reduced soil erosion. Without this vegetation, soil is more susceptible to erosion and can cause the erosion of streambanks. This can cause large influxes of fine sediment into downstream habitat and can destabilize the upper stream reaches (i.e. headcutting). The proposed treatments will intercept in-channel soil and retain them on-site. Stabilizing these soils will allow revegetation to occur at a faster rate than what would occur if structures were not used to reduce erosion. This type of structure is proven to be effective in stabilizing soils after a fire.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The proposed erosion control treatments comply with management direction in the Jarbidge RMP (see Land Use Plan Consistency, page 4 (6, 7). The project is cost effective because the proposed work can be accomplished with a relatively small crew (<5 people) and in a short amount of time (two weeks).

Treatment/Activity: *S7 Protective Fence/Gate*

A. Treatment/Activity Description. Approximately 34 miles of temporary fences will be constructed. Approximately 65 miles of existing fence will need reconstruction along the perimeter of the fire complex. These fences will protect portions of 11 allotments which burned as a result of the fire. A total of 23 allotments will be closed completely and require no

temporary fencing. (The fire in three allotments burned up to or near pasture boundaries resulting in no need of temporary fences). Specifications for the fence would be 3-strand wire fence, including two barbed wires and a smooth bottom wire, with spacing 16”-10”-12” from the ground up. Steel post spacing would be 20 feet. Wire stays are optional, but if used, no more than one stay between posts. In accordance with the Normal Fire Emergency Stabilization and Rehabilitation Plan Environmental Assessment (NFESRP), the temporary fences would be marked and positioned at least 0.25 miles from active sage grouse leks. Temporary fences would be aligned to avoid adverse effects to cultural resources. Temporary fences will be removed when they are no longer needed, normally prior to the resumption of grazing in the enclosed area.

B. How does the treatment relate to damage or changes caused by the fire? The objective of this treatment is to protect the burned area from livestock grazing that would continue to occur in the adjacent unburned areas. The protection fence would keep livestock out of the burned area until resource monitoring criteria for resumption of livestock grazing are met (See Monitoring Plan-Part 6 for details).

C. Why is the treatment/activity reasonable, within policy, and cost effective? At approximately $6,000 per mile, the protection fence is within typical fence costs per mile for this field office. The placement of the fence makes use of the existing fences. Minimal length of protective fence has been identified in order to maintain an effective closure, while allowing grazing on the unburned portions of the allotments where closure to livestock grazing is not needed to meet livestock objectives. Approximately 23 allotments are scheduled for closure which helps to keep the amount and cost of temporary fencing to a minimum.

Treatment/Activity: *S8 Cattle Guard*

A. Treatment/Activity Description. Two cattleguards will need to be installed in order to allow the temporary fences outlined in treatment S7 to be effective, since these fences cross main travel routes through the field office.

B. How does the treatment relate to damage or changes caused by the fire? The fire burned across many of the main travel routes through the field office. In order to effectively close portions of allotments with temporary fences, 2 cattle guards need to be installed across these main travel routes.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The installation of 2 cattle guards will help ensure that the effectiveness of the temporary fencing remains high. It is not possible to install gates across the main travel routes within the field office, as they would be ineffective at limiting livestock access to the closed allotments. The installation of the cattle guards also helps eliminate a public safety hazard.

Treatment/Activity: *S15 Closures (livestock)*

A. Treatment/Activity Description. Portions of the burned area would be closed to livestock grazing to promote recovery of burned vegetation and/or facilitate the establishment of seeded species. Separate grazing decision documents will be issued. The resumption of livestock grazing use would ultimately depend on monitoring and meeting of ES plan objectives. Recovery of the burned area would be monitored for availability to grazing on a yearly basis. Protection fences and the livestock closure would be monitored for fence integrity to determine needed repairs before livestock enter the burned area. The monitoring for grazing availability and recommendations for opening the areas that have been closed to livestock would be the

responsibility of an interdisciplinary team. The Field Office Manager ultimately makes the decision about opening the areas that have been closed to livestock grazing.

B. How does the treatment relate to damage or changes caused by the fire? This treatment serves a two fold purpose. 1) It gives the plants that are able to recover on their own rest from livestock grazing and 2) allows seeded species time to germinate, and develop sufficient root systems to withstand grazing. This rest provides an opportunity for litter to accumulate on the ground which prevents both water and wind erosion. Issuing a closure decision or entering into an agreement for grazing protects the investment that BLM is making with seeding to help ensure a greater chance of success.

C. Why is the treatment/activity reasonable, within policy, and cost effective? BLM policy requires rest of the treated area from livestock grazing use until stabilization and rehabilitation objectives have been met. Closures allow for recovery of vegetation and establishment of seeded areas. It also helps to protect the investment of treatments. The wildfire burned in 37 allotments affecting 21 grazing permits. Of these allotments, 23 appear to require full closure from grazing use. Approximately 51,500 animal unit months (AUMs) of grazing use are lost through the stabilization and rehabilitation period.

Treatment/Activity: *S15 Closures (OHV)*

A. Treatment/Activity Description. An Emergency Cross-Country Motorized Vehicular Closure is required for the burn area in order to control the amount of off road travel within the burn area. The area will be closed for a period of 2 years, or until an interdisciplinary team recommends to the field manager that the area should be reopened. The 2 year closure period begins when the notice is posted in the Federal Register. The area is currently devoid of vegetation which would allow for easy cross country travel and the proliferation of unauthorized roads. The sheer size of this closure, approximately 510,000 acres, will require additional funding for law enforcement and staff patrols since there are currently only 2 rangers to cover all of the area within the Twin Falls District.

B. How does the treatment relate to damage or changes caused by the fire? This treatment will help limit the amount of unauthorized cross-country travel within the burn, which can increase the spread of invasive plants and noxious weeds, and help with natural recovery of the burn area as well as the recovery of the treated areas.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The ESR manual states that burned or seeded areas may be temporarily closed to the public by excluding vehicle, bicycle, horse, and foot use if unacceptable resource damage is expected to occur. The creation of new travel routes within the burn area would jeopardize treatment effectiveness, natural recovery, and serve as a seed source for spread noxious weeds and invasive plants.

Issue 3. **Designated Critical Habitat for Federal/State Listed, Proposed, or Candidate Species**

This issue is addressed by treatments outlined in Issues 1, 2, and 5

Issue 4. Critical Heritage Resources

Treatment/Activity: *S10 Cultural Protection-(Stabilization)*

A. Treatment/Activity Description. Four important rock art sites were burned over in the Murphy Complex fires. Initial post-fire observations indicate that detailed recording of the sites is needed to prevent loss of the resource through deterioration of the painted, engraved, or

pecked images or through exfoliation of the rock panels. The recording will entail detailed photographs and measurements, computer enhancement of the digital images, and computer aided mapping of each panel. The proposed treatments would be implemented in the fall of 2007.

B. How does the treatment relate to damage or changes caused by the fire? Although rock surfaces deteriorate naturally over time, fire is known to speed up this process. Rock art panels are particularly susceptible to fire damage in southern Idaho, since they normally occur on smooth, layered rhyolite or basalt surfaces. Extreme heat can lead to rapid exfoliation of these surfaces. Painted images are even more vulnerable to the effects of heat; they can be damaged not only by the deterioration of the underlying rock but by direct damage or destruction of the pigments used to create them. Each of the four sites proposed for treatment was completely burned over by the Murphy Complex. The proposed treatment will provide a permanent record of these important sites and may be the only effective means available to prevent loss of the resource.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Due to the remoteness of the sites and the lack of effective stabilization measures available for the protection of exposed rock art sites, the proposed treatment is clearly the most reasonable and cost effective technique for protecting the resource. Constructing protective shelters would be expensive, difficult to maintain, and could lead to increased visitation and vandalism of these sites. The proposed treatment will provide a permanent record and is the least costly and may be the only possible alternative to preventing further damage from the effects of the Murphy Complex fires. This stabilization method is in compliance with the Bureau's Burned Area Emergency Stabilization and Rehabilitation Handbook (H-1742-1: 28).

Treatment/Activity: *S10 Cultural Resource Protection (Patrol)*

A. Treatment/Activity Description. Systematic patrols by law enforcement officers are needed to deter illegal artifact collecting and looting of archaeological sites exposed by the Murphy Complex fires. Twin Falls County and Owyhee County Sheriffs Deputies, through agreement, would assist BLM Rangers to ensure adequate coverage of the burned area. Temporary hires may also be used. Patrols would be conducted through the remainder of 2007 and continue through 2008. In order to be effective patrols must be conducted on weekends as well as during the work week. These cultural resource protection patrols would be combined with the proposed OHV closure enforcement patrols for maximum efficiency.

B. How does the treatment relate to damage or changes caused by the fire? The exposure of archaeological materials and concomitant rise in unauthorized collecting and looting is directly related to Murphy Complex Fires. The purpose of the patrols is to protect cultural resources within the burned area by investigating potential unauthorized activities and making public awareness contacts. Law enforcement and staff patrols have proven to be effective in deterring illegal activities during past fire stabilization efforts.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Law enforcement patrols are recognized in the BLM ESR Handbook (H-1742-1:29) as reasonable actions where sites are at risk from looting. Used in conjunction with enforcement of the cross-country travel (OHV) restrictions, this treatment should provide a cost effective means of protecting cultural resources while protecting BLM's investment in the other stabilization treatments.

Issue 5. Invasive Plants

Treatment/Activity: *S2 Ground Seeding*

Please see description under Issue 2 Soil Water Stabilization, for a combined discussion of ground seeding for stabilization and invasive plants.

Treatment/Activity: *S5 Noxious Weeds Treatment*

A. Treatment/Activity Description. Noxious weed control within the burned area would be done in the first year following the fire, to directly treat the expected weeds. All actions would be in accordance with the Boise District Normal Fire Stabilization and Rehabilitation Plan EA #ID-090-2004-050, May, 2005 and the Noxious and Invasive Weed Treatment Program consultation with the US Fish and Wildlife Service (OALS #1-4-05-I-759). Spotted knapweed, Canada thistle, bull thistle, Russian knapweed, Scotch thistle, spotted knapweed, and diffuse knapweed are the primary noxious weeds of concern. A total of 425,815 acres would be surveyed and treated under this activity.

B. How does the treatment relate to damage or changes caused by the fire? The objective of this treatment is to identify and control the expected noxious weed increase using spot herbicide application on the burned area. The identified weeds are present in the area and are expected to increase due to the removal of existing plant cover by the wildfire. On a fire of this size survey and treatment techniques are usually modified to include a grid pattern since the survey area is large.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Weed treatments in this Field Office typically run about $1.30-$1.50 per acre. Field work is combined with other weed treatments in the area for cost efficiency. Surveying and treating weed infestations before they become established is more cost effective than trying to eradicate them once they have been in place for a few years. Current policy states that treatment should occur where there is threat that those species may quickly invade or hamper reestablishment of native vegetation. Rush Skeletonweed and Diffuse knapweed are the two most common non-native invasive species within the field office area and they are known to quickly invade fire areas.

Bruneau Field Office Treatments

Issue 1. Human Life and Safety

The ground seeding treatments/activities listed below in Issue 2 are considered to directly address the impacts of human life and safety. Other treatment/activities, listed under Soil/Water Stabilization, are considered to indirectly impact human life and safety.

Issue 2. Soil/Water Stabilization

Treatment/Activity: *S2 Ground Seeding*

A. Treatment/Activity Description: Rangeland drills would be used to plant: Goldar bluebunch wheatgrass, P7 Bluebunch Wheatgrass, Sherman Big Bluegrass, and Delar Small Burnett on 2,400 acres of the burned area. Drill seeding would occur between approximately October 15th and November 30th. Seed mix is based on seed availability and site conditions which are different than the sites previously described for the Jarbidge Field Office.

Proposed Seed Mix	
Species	Rate (lbs/acre)
Goldar Bluebunch Wheatgrass	4
P7 Bluebunch Wheatgrass	3
Sherman Big Bluegrass	0.5
Delar Small Burnett	2
Total lbs/ac	9.5

B. How does the treatment relate to damage or changes caused by the fire? In the area to be drill seeded, the fire burned all woody material and the associated native perennial grasses in the understory of former sagebrush crowns. The temperature of the fire was hot enough to produce white ash in the area of the pre-existing sagebrush crown. Also, the lack of any recognizable sagebrush "stumps" or native perennial grass crowns indicates the fire burned hot. Past experience has shown that mortality of native perennial grasses and sagebrush is 100% in white ash areas. Former sagebrush crown areas and the interspaces between sagebrush crowns will be subject to accelerated erosion due to the lack of soil stabilizing native perennial grasses. These burned areas will be invaded by weedy annuals that don't have good soil stabilization characteristics.

The post-fire Bruneau River already is muddy from upstream sediment runoff from the Murphy Complex burned area. Without the soil stabilization characteristics of perennial grasses, increased runoff will produce accelerated erosion. The area to be drill seeded currently has active gullies. These gullies would increase in size and deliver sediment to drainages that flow into the nearby (1/2 mile away) Bruneau River. The cumulative impact of the Murphy Complex burned area would be to increase sediment and runoff. When this is combined with above normal snowpack and rain on snow events, floods could result. This will be a threat to downstream inhabited and uninhabited structures.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The costs associated with drill seeding are typical for the Bruneau Field Office and the Boise District as a whole. The area to be drill seeded has adequate precipitation (10-13 inches/year) to allow for the proposed seeding to become established and maintained. It is more cost effective to reestablish native perennial grasses before an invasion of weedy annuals, such as tumble mustard and cheatgrass, than to eradicate and establish native species after invasion has occurred. This is outlined in the policy described in the Emergency Stabilization and Rehabilitation (ESR) handbook. The Bruneau River is popular in the spring for river rafting and flows through the Bruneau River Wilderness Study Area (WSA). Reduced sediment and rock would make the Bruneau River safer for river rafting.

Treatment/Activity: *S6 Soil Stabilization (other than seeding/planting):*

A. Treatment/Activity Description. The fire burned gullies and ephemeral drainages that drain directly into or feed tributaries to the Bruneau River. The Bruneau River contains the BLM species sensitive redband trout. Treatments are being proposed to reduce the amount of fine sediment from burned areas being introduced into a fish bearing stream. Straw bales and/or straw waddles will be used to capture fine sediments and retain them on site so they do not

mobilize during precipitation or runoff events and further destabilize the stream channel. Each structure will consist of approximately three straw bales placed perpendicular to the stream channel and will be anchored in place with wooden stakes. These structures will remain in place until the unstable soils have revegetated and stabilized.

B. How does the treatment relate to damage or changes caused by the fire? Before the fire, upland and riparian vegetation would reduce soil erosion. The burned area is more susceptible to erosion and can cause the erosion of streambanks. This would increase fine sediment flow into the Bruneau River. The proposed structures will intercept fine sediment. Structures are proven to be effective in stabilizing soils after a fire.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The proposed erosion control treatments comply with management direction in the Bruneau MFP (Range Management RM-1 and RM-3). The project is cost effective because the proposed work can be accomplished with a relatively small crew and in a short amount of time.

Treatment/Activity: *S15 Closures (livestock)*

A. Treatment/Activity Description. The majority of the burned area would be closed to livestock grazing to promote recovery of burned vegetation and facilitate the establishment of seeded species. The recommencement of livestock grazing use would ultimately depend on monitoring and meeting of ES plan objectives. Recovery of the burned area would be monitored for availability to grazing on a yearly basis. Protection fences and the livestock closure would be monitored for fence integrity to determine needed repairs before livestock enter the burned area. The monitoring for grazing availability and recommendations for opening the burned area to livestock would be the responsibility of an interdisciplinary team.

B. How does the treatment relate to damage or changes caused by the fire? This treatment serves a two fold purpose. 1) It gives the plants that are able to recover on their own rest from livestock grazing and 2) allows seeded species time to germinate, and develop sufficient root systems to withstand grazing. This rest provides an opportunity for litter to accumulate on the ground which prevents both water and wind erosion. Issuing a closure decision for grazing protects the investment of drill seeding.

C. Why is the treatment/activity reasonable, within policy, and cost effective? BLM policy requires rest of the treated area from livestock grazing use until stabilization and rehabilitation objectives have been met. Closure of the area allows for recovery of vegetation and establishment of seeded areas. It also helps to protect the investment of treatments.

Treatment/Activity: *S15 Closures (OHV)*

A. Treatment/Activity Description. An Emergency Cross-Country Motorized Vehicular Closure is required for the burn area in order to control the amount of off road travel within the burn area. The area is currently devoid of vegetation which would allow for easy cross country travel and the proliferation of unauthorized roads. Closures would be accomplished by posting approximately 12 closure signs limiting travel to existing roads and trails and increased law enforcement patrols to enforce closure. A notice will be published in the federal register of the closure.

B. How does the treatment relate to damage or changes caused by the fire? This treatment will help limit the amount of unauthorized cross-country travel within the burn area. Limiting OHV's would reduce the spread of invasive plants and noxious weeds, and help with natural recovery of the burn area as well as the recovery of the treated areas. With the funding of

additional patrols the treatment is expected to be effective.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The ESR manual states that burned or seeded areas may be temporarily closed to the public by excluding vehicle, bicycle, horse, and foot use if unacceptable resource damage is expected to occur. The creation of new travel routes within the burn area would jeopardize treatment effectiveness, natural recovery, and serve as a seed source for spread noxious weeds and invasive plants.

Issue 4. Critical Heritage Resources

Treatment/Activity: *S10 Cultural Protection (stabilization/patrol)*

A. Treatment/Activity Description. Prior to drill seeding, cultural resources that may be affected by the treatment would be identified and flagged for avoidance. Threats related to looting of archaeological properties can be mitigated by dedicated patrols, either by law enforcement personnel or temporary hires. Patrols will occur bi-monthly during critical winter and spring months until there is sufficient vegetation growth to protect the sites.

B. How does the treatment relate to damage or changes caused by the fire? It is critical to re-establish vegetative cover as quickly as possible to stabilize the sites. Impacts to cultural resources related to the emergency stabilization treatments proposed in this plan can be eliminated by locating and avoiding sites prior to drill seeding the burned area

C. Why is the treatment/activity reasonable, within policy, and cost effective? Looting of archaeological properties causes irretrievable loss of artifacts. Prevention of looting complies with BLM policy and regulations.

Issue 5. Invasive Plants

Treatment/Activity: *S2 Ground Seeding*

See description under Issue 2 Soil Water Stabilization, for a combined discussion of ground seeding for stabilization and invasive plants.

Treatment/Activity: *S5 Noxious Weeds Treatment*

A. Treatment/Activity Description. Noxious weed inventory and treatment within the burned area would be done in the first year following the fire, to directly treat the expected weeds. All actions would be in accordance with the Boise District Normal Fire Stabilization and Rehabilitation Plan EA #ID-090-2004-050, May, 2005 and the Noxious and Invasive Weed Treatment Program consultation with the US Fish and Wildlife Service (OALS #1-4-05-I-759). Spotted knapweed, Canada thistle, bull thistle, Russian knapweed, Scotch thistle, spotted knapweed, and diffuse knapweed are the primary noxious weeds of concern. A total of 8,720 acres would be surveyed and treated.

B. How does the treatment relate to damage or changes caused by the fire? The objective of this treatment is to identify and control the expected noxious weed increase using spot herbicide application on the burned area. The identified weeds are present in the area and are expected to increase due to the removal of existing plant cover by the wildfire.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Weed treatments in the Boise District typically run about $1.50 per acre. Field work is combined with other weed treatments in the area for cost efficiency. Surveying and treating weed infestations

before they become established is more cost effective than eradication after establishment. Current rehabilitation policy states that treatment should occur where there is a threat may quickly invade or hamper reestablishment of native vegetation.

PART 4. – INDIVIDUAL TREATMENT SPECIFICATIONS

JARBIDGE

			FY07	FY08	FY09	FY10	Total Costs
Emergency Stabilization		Units					
S1	***Planning (Plan Prep/Project Mangt)***						
	Project Management State Office	WM's			4,000	4,000	8,000
	Project Management Field Office	WM's		12,000	12,000	12,000	36,000
	Plan Preparation	WM's	20,000				20,000
	GIS	WM's		5,000			5,000
	Travel/Vehicles	Total	6,000	2,000	2,000	2,000	12,000
	Total		26,000	19,000	18,000	18,000	81,000
S2	***Ground Seeding (drill)***						
drill	Labor	WM's		30,000			30,000
	Travel/Vehicles	Total	3,000	20,000			23,000
	Equipment Mobilization	Total		15,000			15,000
	Supplies/Materials	Total	3,700	7,000			10,700
	Contract	Total	631,100				631,100
	Contract Administration	WM's		63,000			63,000
	Vale Drill Use Rate & FOR	Total		433,000			433,000
	Seed	Total	7,196,000				7,196,000
	Seed Mixing	WM's		51,000			51,000
	Seed Testing	Total		12,000			12,000
	Seed Storage	Total		20,000			20,000
cultural	Clearances	Total	899,700				899,700
	Supplies/Materials	Total	500	2,500	1,000		4,000
	Contract Administration/BLM Labor	WM's	12,000	36,000	24,000		72,000
	Travel/Vehicles	Total	1,000	3,500	2,000		6,500
	Monitoring	WM's		4,000	8,000	8,000	20,000
	Total		8,747,000	697,000	35,000	8,000	9,487,000
S3	***Aerial Seeding/Chaining***						
aerial seeding	Travel/Vehicles	Total		2,000			2,000
	Supplies/Materials	Total		2,000			2,000
	Contract	Total	105,600				105,600
	Contract Administration	WM's		4,000			4,000
	Seed	Total	1,319,000				1,319,000
	Seed Mixing	WM's		11,000			11,000

	Seed Testing	Total		3,000			3,000
	Seed Storage	Total		5,000			5,000
harrowing	Labor	WM's	2,200	4,000			6,200
	Travel/Vehicles	Total		9,000			9,000
	Equipment Mobilization	Total	2,200	4,000			6,200
	Supplies/Materials	Total		5,000			5,000
	Contract	Total	76,000				76,000
	Contract Administration	WM's		7,000			7,000
	Total		1,505,000	56,000	0	0	1,561,000
S4	***Seedling Planting (Shrub/Tree)***						
	Seedling Cost	Total		2,000			2,000
	Labor	WM's		11,000			11,000
	Travel/Vehicles	Total		1,000			1,000
	Total		0	14,000	0	0	14,000
S5	***Noxious Weeds***						
	Travel/Vehicles	Total		8,000			8,000
	Supplies/Materials	Total		50,000			50,000
	Contract	Total		350,000			350,000
	Contract Administration	WM's		20,000			20,000
	Total		0	428,000	0	0	428,000
S6	***Soil Stabilization (other than seeding/planting)***						
	Labor	WM's		36,000			36,000
	Travel/Vehicles	Total		4,000			4,000
	Materials	Total		6,000			6,000
	Total		0	46,000	0	0	46,000
S7	***Protective Fence/Gate***						
	Fence Removal	Total				51,000	51,000
	Fence Material	Total	192,500				192,500
	Travel/Vehicles	Total		8,000			8,000
	Supplies/Materials	Total		2,000			2,000
	Contract	Total	280,500				280,500
	Contract Administration	WM's		15,000			15,000
	Total		473,000	25,000	0	51,000	549,000
S8	***Cattle Guard***						
	Cattleguard Material	Total		6,000			6,000
	Labor	WM's		1,000			1,000
	Travel/Vehicles	Total		3,000			3,000
	Contract	Total		3,000			3,000
	Total		0	13,000	0	0	13,000
S10	***Cultural Protection (Stabilization/Patrol)***						
cultural & OHV	Labor	WM'S	8,000	12,000	4,000		24,000
	Travel/Vehicles	Total	1,000	3,000	3,000		7,000
	LE Agreement	Total	5,000	15,000	5,000		25,000
	LE Agreement Administration	WM's	4,000	2,000	2,000		8,000
Rock Art	Labor	WM's	3,500				3,500
stilization	Travel/Vehicles	Total	500	500	500	500	2,000

	Monitoring	Total		2,000	2,500	2,500	7,000
	Contract	Total		15,000			15,000
	Contract Administration	WM's		2,500			2,500
	Total		22,000	52,000	17,000	3,000	94,000
S13	***Tree Hazard Removal***						
	Assessment	Total					0
	Labor	WM's		14,000			14,000
	Travel/Vehicles	Total		1,000			1,000
	Supplies/Materials	Total					0
	Contract	Total					0
	Contract Administration	WM's					0
	Total		0	15,000	0	0	15,000
S16	***Monitoring***						
	Labor	WM's		50,000	50,000	50,000	150,000
	Travel/Vehicles	Total		20,000	20,000	20,000	60,000
	Supplies/Materials	Total		4,000	4,000	4,000	12,000
	GIS	Total		6,000	6,000	6,000	18,000
	Total		0	80,000	80,000	80,000	240,000
	EMERGENCY STABILIZATION TOTALS		10,773,000	1,445,000	150,000	160,000	12,528,000

BRUNEAU

ES		FY07	FY08	FY09	FY10	Total Costs
S1	Planning (plan pres/project Management)					
	Project Management Idaho State Office	2,000	0	0	0	
	Project Management Boise District Office	0	0	0	0	
	Plan Preparation	0	0	0	0	
	Total	2,000	0	0	0	2,000
S2	Ground Seeding					
	Labor	0	2,400	0	0	
	Travel/Vehicles	0	1,200	0	0	
	Equipment Rental	0	0	0	0	
	Supplies/Materials	0	1,200	0	0	
	Contract Range Land Drills	0	24,000	0	0	
	Contract No-Till Drills	0	0	0	0	
	Contract Administration	0	9,600	0	0	
	Drill FOR and Transportation	0	16,200	0	0	
	Total	0	55,000	0	0	55,000
S2	Ground Seed					
	Seed	216,000	216,000	0		
	Seed Mixing	0	2,520	0	0	
	Total	216,000	219,000	0	0	435,000
S2	Ground Seeding Cultural Clearance					

	Labor	2,400	0	0	0	
	Travel/Vehicles	600	0	0	0	
	Supplies/Materials	600	0	0	0	
	Contract	35,088	0	0	0	
	Contract Administration	1,200	0	0	0	
	Total	40,000	0	0	0	40,000
S5	Noxious Weeds					
	Labor	0	3,901	0	0	
	Travel/Vehicles	0	3,901	0	0	
	Chemical Purchase	0	1,560	0	0	
	Supplies/Materials	0	390	0	0	
	Contract	0	0	0	0	
	Contract Administration	0	0	0	0	
	Total	0	10,000	0	0	10,000
S6	Soil Stabilization (other than seeding/planting)					
	Labor	0	0	0	0	
	Travel/Vehicles	0	2,400	0	0	
	Mobilization	0	2,400	0	0	
	Supplies/Materials	0	3,000	0	0	
	Contract	0	3,600	0	0	
	Contract Administration	0	600	0	0	
	Total	0	12,000	0	0	12,000
S7	Protective New Fence/Gate 3 Wire Temp					
	Labor	0	800	0	0	
	Travel/Vehicles	0	800	0	0	
	Clearances	0	1,200	0	0	
	Fence Material	0	6,000	0	0	
	Contract Fence Construction	0	6,800	0	0	
	Contract Fence Removal	0	0	0	4,000	
	Contract Administration	0	1,600	0	1,600	
	Supplies/Materials	0	1,000	0	0	
	Total	0	18,000	0	6,000	24,000
S10	Cultural Protection (stabilization/patrol)					
	Labor	0	1,000	0	0	
	Travel/Vehicles	0	750	0	0	
	Equipment	0	500	0	0	
	Clearances	0	0	0	0	
	Supplies/Materials	0	250	0	0	
	Contract	0	0	0	0	
	Contract Administration	0	0	0	0	
	Total	0	3,000	0	0	3,000
S15	Closures (OHV/livestock/area)					

	Labor	0	1,000	0	0	
	Travel/Vehicles	0	15	0	0	
	Supplies/Materials	0	250	0	0	
	Contract	0	250	0	0	
	Contract Administration	0	5	0	0	
	Total	0	2,000	0	0	2,000
S16	Monitoring (implementation, effectiveness)					
	Labor	0	0	0	0	
	Travel/Vehicles	0	1,951	1,951	1,951	
	Supplies/Materials	0	780	780	780	
	Contract	0	5,071	5,071	5,071	
	Contract Administration	0	3,901	3,901	3,901	
	Total	0	12,000	12,000	12,000	36,000
	EMERGENCY STABILIZATION	258,000	331,000	12,000	18,000	619,000

DRILL SEEDING JARBIDGE FIELD OFFICE

Thurbers Mix Thurbers Mix	% PLS	PLS seeds/sq foot	PLS seeds per acre	Seeds lb bulk	Total seeds/acre bulk	Drill Seeding (acres)	Lbs/acre	Total Pounds	Cost per lb	Total Costs
Sandbergs Bluegrass	0.72	21.8	949,608	950,000	1,045,000	13,139	1.1	14,450	12.00	173,400.00
Bottlebrush Squirreltail	0.72	4.4	191,664	190,000	570,000	13,139	3	39,400	24.00	945,600.00
Anatone Bluebunch WG	0.765	3.2	139,392	140,000	350,000	13,139	2.5	32,850	12.00	394,200.00
Appar Lewis Flax	0.784	9.6	418,176	420,000	42,000	13,139	0.1	1,300	18.00	23,400.00
Munroe Globemallow	0.675	11.4	496,584	500,000	50,000	13,139	0.1	1,300	90.00	117,000.00
Ladak Alfalfa	0.8	5.3	230,868	230,000	115,000	13,139	0.5	6,550	3.00	19,650.00
Eski Sainfoin	0.8	0.6	26,136	28,000	38,080	13,139	1.36	17,850	3.50	62,475.00
TOTALS							**8.66**	**113,700**		**1,735,725.00**

Bluebunch Mix	% PLS	PLS seeds/sq foot	PLS seeds per acre	Seeds lb bulk	Total seeds/acre bulk	Drill Seeding (acres)	Lbs/acre or	Total Pounds	Cost per lb	Total Costs
Sandbergs Bluegrass	0.72	21.8	949,608	950,000	475,000	45,720	0.5	22,850	12.00	274,200.00

Bottlebrush Squirreltail	0.72	4.4	191,664	190,000	190,000	45,720	1	45,700	24.00	1,096,800.00
Anatone Bluebunch WG	0.765	3.2	139,392	140,000	700,000	45,720	5	228,600	12.00	2,743,200.00
Arrowleaf Balsamroot	0.75	1.3	56,628	55,000	16,500	45,720	0.3	13,700	45.00	616,500.00
Western Yarrow	0.84	62	2,700,720	2,700,000	27,000	45,720	0.01	450	25.00	11,250.00
Ladak Alfalfa	0.8	5.3	230,868	230,000	115,000	45,720	0.5	22,850	3.00	68,550.00
Fourwing Saltbush	0.31	1.3	56,628	55,000	27,500	45,720	0.5	22,850	18.00	411,300.00
TOTALS							**7.81**	**357,000**		**5,221,800.00**

Idaho Fescue Mix	**% PLS**	**PLS seeds/sq foot**	**PLS seeds per acre**	**Seeds lb bulk**	**Total seeds/acre bulk**	**Drill Seeding (acres)**	**Lbs/acre**	**Total Pounds**	**Cost per lb**	**Total Costs**
Idaho Fescue	0.85	10.3	448,668	450,000	900,000	4,248	2	8,500	6.00	51,000.00
Anatone Bluebunch WG	0.765	3.2	139,392	140,000	392,000	4,248	2.8	11,900	12.00	142,800.00
Sherman Big Bluegrass	0.63	21	914,670	917,000	458,500	4,248	0.5	2,150	7.00	15,050.00
Delar Small Burnett	0.76	1.2	52,272	50,000	2,000	4,248	0.04	200	4.00	800.00
Western Yarrow	0.84	62	2,700,720	2,700,000	27,000	4,248	0.01	50	25.00	1,250.00
Ladak Alfalfa	0.8	5.3	230,868	230,000	92,000	4,248	0.4	1,700	3.00	5,100.00
Eski Sainfoin	0.8	0.6	26,136	28,000	42,000	4,248	1.5	6,400	3.50	22,400.00
TOTALS							**7.25**	**30,900**		**238,400.00**

WSA Mix	**% PLS**	**PLS seeds/sq foot**	**PLS seeds per acre**	**Seeds lb bulk**	**Total seeds/acre bulk**	**Aerial Seeding (acres)**	**Lbs/acre**	**Total Pounds**	**Cost per lb**	**Total Costs**
Anatone Bluebunch WG	0.765	3.2	139,392	140,000	700,000	13,195	5	66,000	6.00	396,000.00
Sandbergs Bluegrass	0.72	21.8	949,608	950,000	475,000	13,195	0.5	6,600	12.00	79,200.00
Bottlebrush Squirreltail	0.72	4.4	191,664	190,000	190,000	13,195	1	13,200	24.00	316,800.00
Arrowleaf Balsamroot	0.75	1.3	56,628	55,000	16,500	13,195	0.3	3,950	45.00	177,750.00

Western Yarrow	0.84	62	2,700,720	2,700,000	27,000	13,195	0.1	1,300	25.00	32,500.00
Winterfat	0.3	2.5	108,900	110,000	55,000	13,195	0.5	6,600	30.00	198,000.00
Fourwing Saltbush	0.31	1.3	56,628	55,000	27,500	13,195	0.5	6,600	18.00	118,800.00
TOTALS							**7.9**	**104,250**		**1,319,050.00**

SEEDLINGS

Seedling Species	Acres of Seedling Planted	# of Seedlings / Acre	Total # of Seedlings	Cost / Seedling	Total Cost
Willow *Salix luteau* or *Salix lasiandra*			1600	3.75	6000
Totals			1600	3.75	6000

DRILL SEEDING BOISE DISTRICT BRUNEAU FIELD OFFICE

Seed Type/Variety	PLS Rating	Seeding Acres	Pounds/ Acre Bulk	Pounds/ Acre PLS	# Seeds/ Lb Bulk	# Seed Lb PLS	# Seed/ Acre Bulk	# Seed/ Acre PLS	# Seed/Sq Foot PLS	Total Pounds PLS	Total Pounds Bulk	Cost Per Pound	Total Cost
Bluebunch Wheatgrass, Goldar	0.7650	2,400	4.0	3.1	140,000	107,100	560,000	428,400	9.8	7344	9,600	$10.00	$96,000.00
Bluebunch Wheatgrass, P7	0.7650	2,400	3.0	2.3	140,000	107,100	420,000	321,300	7.4	5508	7,200	$10.00	$72,000.00
Big Bluegrass, Sherman	0.6300	2,400	0.5	0.3	917,000	577,710	458,500	288,855	6.6	756	1,200	$12.00	$14,400.00
Small Burnet, Delar	0.7600	2,400	2.0	1.5	50,000	38,000	100,000	76,000	1.7	3648	4,800	$7.00	$33,600.00
TOTALS		9,600	9.5	7.2			1,538,500	1,114,555	25.6	17256	22,800		$216,000.00

NATIVE/NON-NATIVE PLANT WORKSHEET (Bruneau and Jarbidge Field Office)

Proposed Native Plants in Seed Mixture

1. Are the native plants proposed for seeding adapted to the ecological sites in the burned area?
Yes |_X_| No |__| Rationale: There are 5 major potential vegetation types within the burn area; Loamy 7-10" Wyoming Sagebrush/Thurbers Needlegrass, Loamy 10-13" Wyoming Sagebrush/Bluebunch Wheatgrass, Shallow Claypan 12-16" Low Sagebrush/Idaho Fescue, Loamy 13-16" Mountain Big Sagebrush/Bluebunch Wheatgrass, and Loamy 12-14" Basin Big Sagebrush/Idaho Fescue/Bluebunch Wheatgrass. The species selected for the seed mixes are what would be expected for the site, with the exception of the Thurbers seed mix, which includes bluebunch wheatgrass since Thurbers Needlegrass seed is not commercially available.

2. Is seed or seedlings of native plants available in sufficient quantity for the proposed project?
Yes |_X_| No |__| Rationale: The seed mixes were developed using species that are normally commercially available. The quantities available will depend on the amount of ES and ER projects that are being implemented across the west.

3. Is the cost and/or quality of the native seed reasonable given the project size and approved field unit management and Plan objectives?
Yes |_X_| No |__| Rationale: The species chosen are commonly used in seed mixes within the area and are reasonable given the size of the burn area. For further details see the Land Use Plan Conformance Section.

4. Will the native plants establish and survive given the environmental conditions and the current or future competition from other species in the seed mix or from exotic plants?
Yes |_X_| No |__| Rationale: The species chosen were known to exist within the fire area prior to the burn and are adapted to the ecotype. The seeding rate is adequate to reduce seedling competition.

5. Will the existing or proposed land management practices (e.g. wildlife populations, recreation use, livestock, etc.) maintain the seeded native plants in the seed mixture when the burned area is re-opened?
Yes |_X_| No |__| Rationale: Current allotment management fences and appropriate stocking levels should allow for the seeding to maintain itself once it is established. Livestock grazing would not be reintroduced into seeded areas until the monitoring objectives outlined in the ES and BAR plans have been met.

Proposed Non-native Plants in Seed Mixture:

1. Is the use of non-native plants necessary to meet objectives, e.g., consistent with applicable approved field unit management plans?
Yes |_X_| No |__| Rationale: The seed mixes proposed are predominately native. There are four forb species being used which are non-native; Small burnet, alfalfa, sainfoin and Lewis flax. These four species will help meet wildlife habitat objectives outlined in the ES plan as well as those outlined in the land use plans. The use of non-native species is allowed especially when the quantities of native forbs are limited, as is the case during this fire season.

2. Will non-native plants meet the objective(s) for which they are planted without unacceptably diminishing diversity and disrupting ecological processes (nutrient cycling, water infiltration, energy flow, etc.) in the plant community?
Yes |_X_| No |__| Rationale: The four species being proposed have been used previously within the field office and have not disrupted ecological processes within the native plant community. The plants are mostly nitrogen fixing and should serve to fill that niche within the ecosystem.

3. Will non-native plants stay on the site they are seeded and not significantly displace or interbreed with native plants?

Yes |_X_| No |__| Rationale: None of the species proposed are known to move off site or interbreed with native plants. They have been used in previous ES and ER projects throughout the field office with great success.

PROPOSED SEED SPECIES – NATIVES AND NON-NATIVES

JARBIDGE FIELD OFFICE

Non-native Plants	Native Plants
Small Burnet (*Sanquisorba minor*)	Idaho Fescue (*Festuca idahoensis*)
Alfalfa (*Medicago sativa*)	Bluebunch Wheatgrass *(Pseudogeneria spicata)*
Sainfoin (*Onobrychis viciaefolia*)	Bottlebrush Squirreltail (*Elymus elymoides*)
Lewis Flax (*Linum lewsii*)	Sandbergs Bluegrass (*Poa secunda*)
	Sherman Big Blugrass (*Poa ampla*)
	Western Yarrow (*Achillea millefolium*)
	Balsamroot (*Balasmorhiza sagittata*)
	Globemallow (*Sphaeralcea ambigua*)
	Winterfat (*Krasheninnikovia lanata*)
	Four Wing Saltbush (*Atriplex canescens*)

PART 5. – COST-RISK ANALYSIS

Probability of Stabilization Treatments Successfully Meeting Objectives

Action/ Spec. #	Planned Action	Unit (acres, WMs, number)	# Units	Total Cost	% Probability of Success
S2	Ground Seeding	acres	2400 Bruneau 63,108 Jarbidge		85
S3	Aerial Seeding	acres	13,195		60
S4	Seedling Planting (shrub/tree)	number	1600		70
S5	Noxious Weeds	acres	425,815		85
S6	Soil Stabilization (other than seeding/planting)	number	67		85
S7	Protective Fence/Gate	miles	38Temp Jarbidge 65 Repair Jarbidge 4 Bruneau		100

S8	Cattle Guard	number	2		100
S9	Road/Trail Water Diversion				
S10	Cultural Protection (stabilization/patrol)	number	4 stabilized 150 patrolled		100 75
S11	Insect/Rodent Control				
S12	Horse Gather				
S13	Tree Hazard Removal	miles	12		95
S14	Facilities/Improvements				
S15	Closures (OHV, livestock, area)	number	37 allotment 1 OHV		100
	TOTAL COSTS				

COST-RISK SUMMARY

The costs of the project and probability of success of the proposed treatments are compared with the risks to resource values if: 1) no action is taken, and 2) the proposed action is successfully implemented. Alternatives may be included in this analysis to assist in the selection of the treatments that will cost effectively achieve the objectives. Answer the following questions to determine which proposed treatments should be selected and implemented.

1. Are the risks to natural resources and private property **acceptable** as a result of the fire if the following actions are taken?

Proposed Action Yes |_X_| No |__| Rationale for answer: The proposed actions should reduce the risks to natural resources and private property. Treatment of the upland vegetation, riparian corridors, and the installation of soil stabilizing structures were designed to minimize impact to natural resources and to limit sediment movement across both pubic and private lands. As with any treatments that are weather dependant, there is always a chance of limited success, especially with seeding treatments, but the risks to private property and natural resources are far greater without treatment than as a result of the proposed action treatments.

No Action Yes |__| No |_X_| Rationale for answer: The risk to natural resource values on public and private land are not acceptable under the no action alternative. The sheer size of this fire has had impacts on wildlife habitat and watershed values. If the entire fire area goes untreated, soil loss, habitat fragmentation, and an increase in non-native species is expected to occur. These changes would occur across the landscape, including private and state lands, and would take decades to begin to recover from the impacts of the fire.

2. Is the probability of success of the proposed action or no action acceptable given their costs?

Proposed Action Yes |_X_| No |__| Rationale for answer: The probability of success of the proposed actions is fairly high and reasonable given the cost. The probability of success of treatments that are not weather dependant is higher than the seeding treatments which depend partially on weather among other factors for success. The proposed action targets the areas within the burn that are thought will not recover without assistance. By limiting treatment

areas to those that will not recover naturally the overall costs of the plan were greatly reduced.

No Action Yes |__| No |_X_| Rationale for answer: The probability of meeting the goals outlined in the Jarbidge RMP and the Normal Year Fire Rehabilitation Plan are low if the no action alternative is implemented. Many areas of the burn will recover on their own but some areas will not recover to native vegetation and instead will type convert to non-native species.

3. Which approach will most cost-effectively and successfully attain the objectives and therefore is recommended for implementation from a Cost/Risk Analysis standpoint?

Proposed Action |_X_| or No Action |__|

Comments: The proposed actions will meet both the objectives outlined in the Jarbidge RMP, Normal Year Fire Rehabilitation Plan and National Emergency Stabilization policy. Steps have been taken during treatment development to limit the cost while ensuring that treatments are effective.

RISK OF RESOURCE VALUE LOSS OR DAMAGE

Identify the risk (high, medium, low, none or not applicable (NA) of unacceptable impacts or loss of resources.

No Action-Treatments Not Implemented (check one)

Resource Value	N/A	None	Low	Medium	High
Unacceptable Loss of Topsoil				X	
Weed Invasion					X
Unacceptable Loss of Vegetation Diversity					X
Unacceptable Loss of Vegetation Structure					X
Unacceptable Disruption of Ecological Processes					X
Off-site Sediment Damage to Private Property			X		
Off-site Threats to Human Life		X			
Other-loss of Access Road Due to Plugged Culverts			X		

Proposed Action-Treatments Successfully Implemented (check one)

Resource Value	N/A	None	Low	Medium	High
Unacceptable Loss of Topsoil			X		
Weed Invasion			X		
Unacceptable Loss of Vegetation Diversity			X		

Unacceptable Loss of Vegetation Structure			X		
Unacceptable Disruption of Ecological Processes			X		
Off-site Sediment Damage to Private Property		X			
Off-site Threats to Human Life		X			
Other-loss of Access Road Due to Plugged Culverts		X			

PART 6. – MONITORING PLAN

JARBIDGE FIELD OFFICE MONITORING

Treatment/Activity: ***S13 Tree Hazard Removal***
1) Objective of this treatment is to reduce the number of hazard trees in the Jarbidge River but allow for large woody debris to be recruited to the river for bull trout habitat.
2) Implementation Monitoring will take place to ensure that immediate hazards are addressed without limiting benefits to bull trout habitat or the scenic values of the Jarbidge River.
3) Effectiveness Monitoring will include visits to the site by recreation and fisheries staff and other BLM employees to ensure that immediate hazards have been addressed.

Treatment/Activity: ***S4 Seedling Planting (shrub/tree)***
1) Objective of this treatment is to replace streamside vegetation lost during the fire that stabilizes the stream bank.
2) Implementation Monitoring will take place to ensure that plantings are completed on time and to BLM specification.
3) Effectiveness Monitoring will include visits by BLM employees to determine plant survival and success in stabilizing the streambank and maintaining channel integrity.

Treatment/Activity: ***S6 Soil Stabilization (other than seeding/planting)***
1) Objective of this treatment is to reduce the amount of fine sediment that are eroded from the uplands and positioned into fish bearing streams. The structures will retain the soil on site, slowing erosion rates and allowing vegetation to recover.
2) Implementation Monitoring will take place to ensure that the structures are installed according to BLM specifications and in the locations where they will be most effective in reducing erosion.
3) Effectiveness Monitoring will include visits by BLM employees to determine if the structures are stabilizing soils and if the captured soils are revegetating.

Treatment/Activity: ***S7 Protective Fence/Gate:***
1) Objective of the treatment is to exclude livestock grazing from the burned area and riparian planting areas in order to help ensure vegetation recovery.
2) Implementation monitoring will take place to ensure that installation is completed and to BLM specification and on time.
3) Effectiveness monitoring will include visits to the site by range staff and other BLM

employees to ensure that there is no unauthorized livestock within the burned area or riparian planting areas and that no use has taken place.

Treatment/Activity: ***S8 Cattle Guard***
1) Objective of this treatment is to install 2 cattle guards which will help make the temporary fences which cross main travel routes more effective.
2) Implementation monitoring will ensure that the cattle guards are correctly installed.
3) Effectiveness monitoring will include visits to the cattle guard locations to ensure that they are not silted in and remain effective at limiting livestock movement into closed areas.

Treatment/Activity: ***S15 Closures (livestock)***
1) Objective of this treatment is to exclude livestock grazing from portions of the burned area in order to help ensure vegetation recovery.
2) Implementation monitoring will take place to ensure that the decision is written and presented to the permittee.
3) Effectiveness monitoring will include visits to the site by range staff and other BLM employees to ensure that there is no livestock within the burned area and that no unauthorized use has taken place.

Treatment/Activity: ***S15 Closures (OHV)***
1) Objective of this treatment is to prevent cross-country motorized vehicle travel which can increase the possibility of the spread of invasive plants and noxious weeds and to help with natural recovery of the burn area as well as the recovery of the treated areas.
2) Implementation Monitoring of the closure will primarily be insured by law enforcement presence during the recovery period. Signing of the emergency closure area will be maintained as needed.
3) Effectiveness Monitoring will include visits by Field Office staff to insure compliance of the closure.

Treatment/Activity: ***S10 Cultural Protection (stabilization/patrol)***
1) Objective of this treatment is to create a permanent record of rock art sites that were affected by the fire, and to prevent looting of archaeological sites exposed by the fire through law enforcement patrols.
2) Implementation monitoring for rock art stabilization treatment will include field visits during the fieldwork phase to ensure sites are adequately identified and recorded and post field review of documents to ensure compliance with contract specifications. Implementation monitoring of site protection through law enforcement and staff patrol will include close coordination with law enforcement and staff to ensure effective coverage of critical patrol routes and regular updates to management concerning the results of the patrols.
3) Effectiveness monitoring for rock art stabilization will include field visits by cultural resources staff over the next three years to document the condition of the rock art panels. Effectiveness monitoring for law enforcement patrol will be measured by a reduction in reported incidences of artifact theft and looting. Monitoring will continue for the duration of the patrols (two years).

Treatment/Activity: ***S2 Ground Seeding***

1) Objective of this treatment is to establish native perennial vegetation within the burn perimeter in order to limit the amount of non-native invasive species cover post burn.
2) Implementation monitoring includes ensuring that the seed is planted at the proper time, in the correct area and using the correct methods.
3) Effectiveness monitoring includes a combination of the following methods.

Monitoring Methods: Sampling sites would be established at existing key areas throughout the treatment areas, the proposed seeding exclosures, and at additional sites if needed (new key areas would be established in coordination with the permittees and affected interests)

Density: Density would be used to quantify seedling establishment success for the first three growing seasons. A $0.5m^2$ frame would be used to record seedling density, for a total of 90 plots along 3 transects which are set up at pre-determined azimuths.

Cover: Point and foliar cover would be used to determine the amount of cover protecting the soil surface. Fifty point transects would be recorded at each monitoring site.

Plant Vigor: Seed production and vegetative production would be measured at the burned and unburned sampling sites and then compared between the burned and unburned treatments.

Photo Plots: Photographs would be taken at each sampling site. This data would be used to determine when livestock grazing can be resumed on the affected allotments. If the preponderance of evidence indicates the three Monitoring Objectives are not being met, then the livestock closure period may be extended. However, since sagebrush is not palatable to livestock, sagebrush density would not be a factor in determining when livestock can reenter the allotment.

Treatment/Activity: ***S5 Noxious Weeds Treatment***

1) The objective of this treatment is to identify and treat any new noxious weed infestations that may develop within the burn area.
2) Implementation monitoring is accomplished through the receipt of weed treatment reports and polygons, showing the areas inventoried and the date and time and application of any herbicides within the burn area.
3) Effectiveness monitoring is accomplished through 2 methods. One is through re-inventory of the area the following year. The other is through the use of the monitoring methods outlined for treatment ***S2 Ground Seeding.*** Cover and density readings collected to determine seeding effectiveness also gives quantitative data as to percent cover and density of noxious weeds within the burn area.

The methods used to monitor the stabilized areas would be completed by the methods adopted by the Twin Falls District, Jarbidge FO, as outlined in the Protocols for ES&R Treatment Monitoring for the Boise District. The methods may include general field observations, photo plots, point line intercept, ground cover, and gap intercept. Annual livestock use supervision of the treated/burned areas would be done by the appropriate range staff to ensure that all areas are

rested until complete plant recovery. Visits to the allotments by the range staff would be done on a regular basis during the years of closure to ensure these areas are not accidentally being grazed by livestock.

Monitoring Objectives from the Boise District Normal Year Fire Rehabilitation Plan.
1. The majority of desired herbaceous perennial plants are producing seed.
2. The plants must have developed root systems that are extensive enough to provide soil stabilization and prevent uprooting when grazed, especially when soils are moist.
3. The Individual ESR Plan objectives have been met.

Site specific objectives (to determine treatment success)

1. On mechanical seeded perennial vegetation: establish seeded grass densities of 5 plants/m^2.
2. Willow plantings would be an average height of 5 feet, before exclosures will be removed.
3. Aspen suckers would average a total of >5,000 suckers per acre after 3 years and height >5 feet.

Livestock Objectives:

Areas closed to grazing through a formal Grazing Decision will be rested from livestock grazing until the following objectives have been met:

1. Over 50% of desired herbaceous perennial plants are producing seed.
2. Qualitative monitoring observations indicate that the entire plant community has developed root systems sufficient to provide soil stabilization and withstand grazing when soils are moist.
3. Total ground cover is greater than 80% of what is expected on the range site. Ground cover expected on the site is based on cover data collected prior to the fire. If no site specific data exists, then comparable reference sites or site potential estimates based on range site descriptions would be used.
4. For areas seeded with a grass and forb mix as proposed in this plan, 40% of the total cover must be composed of species contained in the applied seed mix or other desirable native perennial grass and forb species that have recovered since the fire. If this objective is not met after the third growing season, the seeding may be considered a failure and grazing may be allowed to resume.

Grazing Decisions closing burned areas within individual allotments may contain additional site specific objectives, timeframes and monitoring protocols for treated and untreated areas.

Monitoring would be conducted for at least three years following the fire to determine when objectives have been met.

Bruneau Field Office Monitoring

Treatment/Activity: ***S2 Ground Seeding***

1) Objective of this treatment is to establish native perennial vegetation within the burn perimeter in order to limit the amount of non-native invasive species cover post burn.

2) Implementation monitoring includes ensuring that the seed is planted at the proper time, in

the correct area and using the correct methods.
3) Effectiveness monitoring includes a combination of the following methods.

Monitoring Methods: Sampling sites would be established at existing key areas throughout the allotments, the proposed seeding exclosures, and at additional sites if needed (new key areas would be established in coordination with the permittee)

Density: Density would be used to quantify seedling establishment success for the first three growing seasons. A $0.5m^2$ frame would be used to record seedling density, for a total of 90 plots along 3 transects which are set up at pre-determined azimuths.

Cover: Point and foliar cover would be used to determine the amount of cover protecting the soil surface. Fifty point transects would be recorded at each monitoring site.

Plant Vigor: Seed production and vegetative production would be measured at the burned and unburned sampling sites and then compared between the burned and unburned treatments.

Photo Plots: Photographs would be taken at each sampling site. This data and the Boise District Range Readiness criteria would be used to determine when livestock grazing can be resumed on the affected allotments. If the preponderance of evidence indicates the three Monitoring Objectives are not being met, then the livestock closure period would be extended. However, since sagebrush is not palatable to livestock, sagebrush density would not be a factor in determining when livestock can reenter the allotment.

Monitoring Objectives from the Boise District Normal Year Fire Rehabilitation Plan.

1. The majority of desired herbaceous perennial plants are producing seed.
2. The plants must have developed root systems that are extensive enough to provide soil stabilization and prevent uprooting when grazed, especially when soils are moist.
3. The Individual ESR Plan objectives have been met.

Site specific seeding objectives (to determine seeding success)

1. On mechanical seeded perennial vegetation: establish seeded grass densities of 5 plants/m^2.

Monitoring would be conducted for at least three years following the fire to determine when objectives have been met.

Treatment/Activity: ***S5 Noxious Weeds Treatment***
Objective of this treatment is to identify and treat any new noxious weed infestations that may develop within the burn area.
1) Implementation monitoring is accomplished through the receipt of weed treatment reports and polygons, showing the areas inventoried and the date and time and application of any herbicides within the burn area.
2) Effectiveness monitoring is accomplished through 2 methods. One is through re-inventory

of the area the following year. The other is through the use of the monitoring methods outlined for treatment ***S2 Ground Seeding.*** Cover and density readings collected to determine seeding effectiveness also gives quantitative data as to percent cover and density of noxious weeds within the burn area.

Treatment/Activity: ***S6 Soil Stabilization (other than seeding/planting)***
1) Objective of this treatment is to reduce the amount of fine sediment that are eroded from the uplands into fish bearing streams. The structures will retain the soil on site, slowing erosion rates and allowing vegetation to recover.
2) Implementation Monitoring will take place to ensure that the structures are installed according to BLM specifications and in the locations where they will be most effective in reducing erosion.
3) Effectiveness Monitoring will include visits by BLM employees to determine if the structures are stabilizing soils and if the captured soils are revegetating.

Treatment/Activity: ***S7 Protective Fence/Gate:***
1) Objective of the treatment is to exclude livestock grazing from the burned area and riparian planting areas in order to help ensure vegetation recovery.
2) Implementation monitoring will take place to ensure that installation is completed and to BLM specification and on time.
3) Effectiveness monitoring will include visits to the site by range staff and other BLM employees to ensure that there is no livestock within the burned area or riparian planting areas and that no use has taken place.

Treatment/Activity: ***S10 Cultural Protection (stabilization/patrol)***
1) Objective of this treatment is to protect cultural sites from looting.
2) Implementation Monitoring of the protection will be accomplished by surveying the area prior to ground disturbing activities, and identifying areas of existing cultural sites, determine the extent of accessibility and eliminating access if necessary and establishing patrol schedules to ensure safety of sites.
3) Effectiveness Monitoring includes success of seeding that will hide site identification in the long term and in the short term the safety of the sites from looting or pillaging.

Treatment/Activity: ***S15 Closures (livestock)***
1) Objective of this treatment is to exclude livestock grazing from portions of the burned area in order to help ensure vegetation recovery.
2) Implementation monitoring will take place to ensure that the decision is written and presented to the permittee.
3) Effectiveness monitoring will include visits to the site by range staff and other BLM employees to ensure that there is no livestock within the burned area and that no unauthorized use has taken place.

Treatment/Activity: ***S15 Closures (OHV)***
1) Objective of this treatment is to prevent cross-country motorized vehicle travel which can increase the possibility of the spread of invasive plants and noxious weeds and to help with natural recovery of the burn area as well as the recovery of the treated areas.

2) Implementation Monitoring of the closure will primarily be insured by law enforcement presence during the recovery period. Signing of the emergency closure area will be maintained as needed.
3) Effectiveness Monitoring will include periodic visits by Field Office staff to insure compliance of the closure.

The methods used to monitor the stabilized areas would be completed by the methods outlined in the Protocols for ES&R Treatment Monitoring for the Boise District. The methods may include general field observations, photo plots, point line intercept, ground cover, and gap intercept. Annual livestock use supervision of the treated/burned areas would be done by the appropriate range staff to ensure that all areas are rested until complete plant recovery. Visits to the allotments by the range staff would be done on a regular basis during the years of closure to ensure these areas are not accidentally being grazed by livestock.

/IEW, APPROVALS, and PREPARERS

MERGENCY STABILIZATION PLAN TEAM MEMBERS

Position	Team Member (Agency/Office)	Initial and Date
Team Leader, Fire Ecologist	Jennifer Mata (BLM/Jarbidge FO)	JLM 8/30/2007
Operations, Rehab Specialist	Scott Uhrig (BLM/Twin Falls DO)	SU 8/30/2007
NEPA Compliance & Planning	Jeff Ross (BLM/Jarbidge FO)	JWR 8/30/07
Botanist	Sheri Hagwood (BLM/Jarbidge FO)	
Cultural Resources/Archeologist	Jeff Ross (BLM/Jarbidge FO)	JWR 8/30/07
Supervisory Rangeland Mgt. Specialist	Arnie Pike (BLM/Jarbidge FO)	ALP 8/30/07
Wildlife Biologist	Jim Klott (BLM/Jarbidge FO)	JHK 08-14-2007
GIS Specialist	Bonnie Ross (BLM/Jarbidge FO)	BR 08/30/2007
Fisheries Biologist	Kate Forster (BLM/Twin Falls DO)	KAF 08/30/07
Recreation Planner	Max Yingst (BLM/Jarbidge FO)	MY 08/30/07
Bruneau Field Office		
Rangeland Mgt. Specialist	Jon Haupt (BLM/Bruneau FO)	JH 8/17/07
Operations	Cindy Fritz (BLM/Boise DO)	CF 8-31-07
Wildlife Biologist	Helen Ulmschneider (BLM/Bruneau FO)	HU 9/4/07
Fisheries Biologist	Bruce Zoellick	BWZ 8-31-07

EMERGENCY STABILIZATION PLAN APPROVAL-Jarbidge Field Office
"The Agency Administrator is responsible for developing, implementing, and evaluating emergency stabilization and rehabilitation plans, treatments, and activities." 620 DM 3.5C

Recommended by:

Richard VanderVoet, Jarbidge Field Office Manager DATE

Approved by:

Bill Baker, Twin Falls District Manager DATE

EMERGENCY STABILIZATION PLAN APPROVAL-Bruneau Field Office

"The Agency Administrator is responsible for developing, implementing, and evaluating emergency stabilization and rehabilitation plans, treatments, and activities." 620 DM 3.5C

Recommended by:

Mitchell A. Juarena 9/04/07

Mitch Juarena, Bruneau Field Office Manager DATE

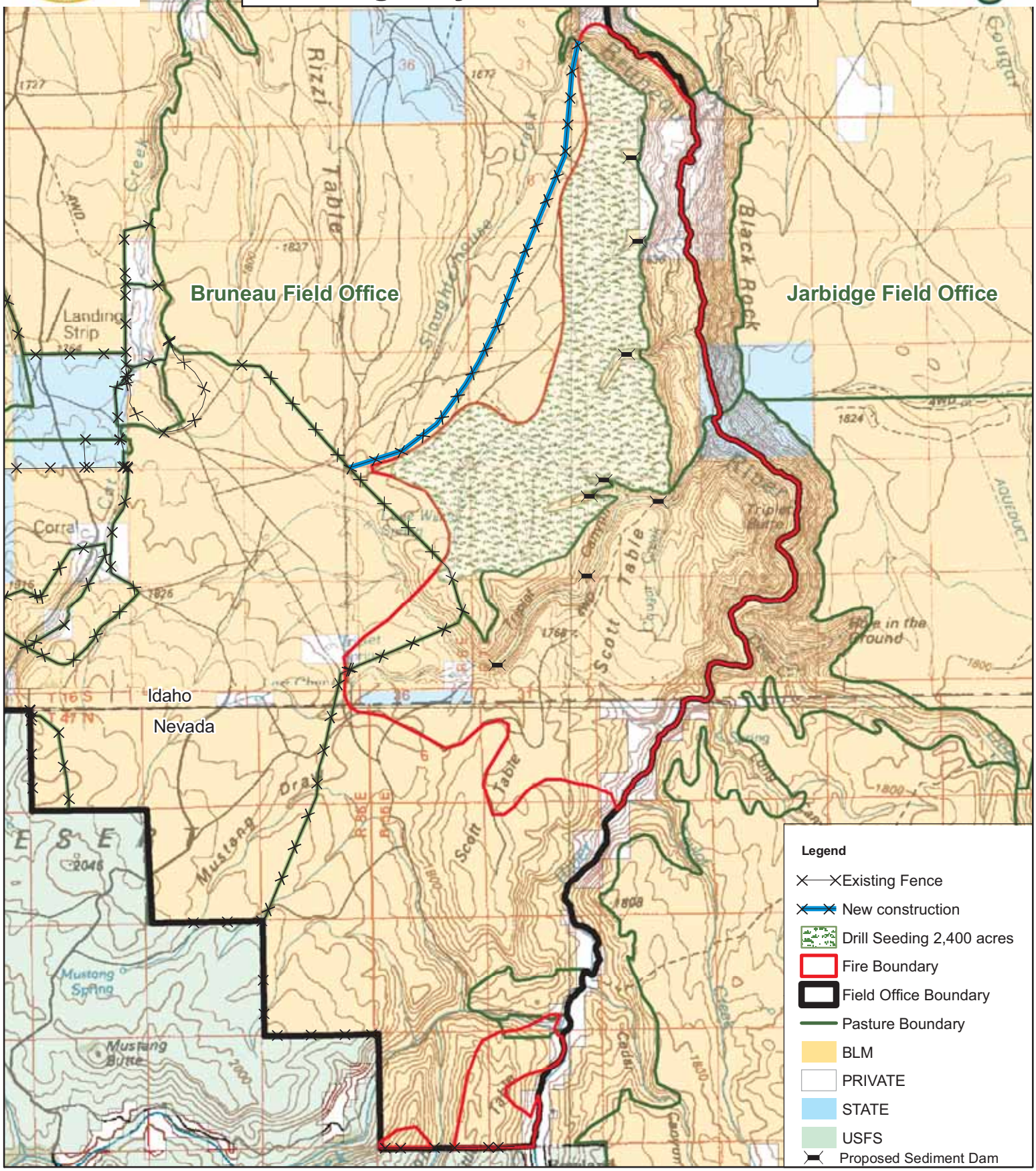
Approved by:

Jerry Taylor, Boise District Manager DATE

FUNDING APPROVAL

Funding of ES Plans is approved through a memo from the appropriate approval administrative level. ES Plans below $100,000 may be approved by the State Director; ES Plans of $100,000 and above must be approved by the WO. Funding is approved and allocated on a year-by-year basis.

DR62 Murphy Complex Fire
Bruneau Field Office
Emergency Stabilization Plan



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