

MURPHY COMPLEX Fire
BURNED AREA REHABILITATION 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
State	Idaho, Nevada
County(s)	Owyhee, Twin Falls, Elko
Ignition Date/Cause	7/16/07 Lightning
Date Contained	8/02/07
Jurisdiction	<i>Acres</i>
BLM	425,815 Jarbidge Field Office 10,673 Bruneau Field Office 263 Elko Field Office
<i>State</i>	25,984
<i>Private</i>	41,947
<i>USFS</i>	88,866
<i>Military</i>	1
Total Acres	593,549
Total BAR Plan Costs	\$11,042,000.00

Status of Plan Submission (check one box below)

X	Initial Submission
	Updating or Revising the Initial Submission
	Amendment

PART 1. REHABILITATION PLAN SUMMARY

BACKGROUND ON THE FIRE

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 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 rehabilitation 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.

JARBIDGE FIELD OFFICE COST SUMMARY TABLE

Action/ Spec. #	Planned Action	Unit	# Units	Unit Cost	FY07	FY08	FY09	FY10	Total Cost
R1	Planning (Project Mangt)	WM's	1	\$28,000.00	\$0	\$8,000	\$10,000	\$10,000	\$28,000
R2	Ground Seeding	Acres	22,449	\$136.89	\$1,145,000	\$1,928,000	\$0	\$0	\$3,073,000
R3	Aerial Seeding/Chaining	Acres	256,741	\$17.25	\$495,000	\$3,935,000	\$0	\$0	\$4,430,000
R4	Seedling Planting	Acres	10,667	\$69.47	\$0	\$741,000	\$0	\$0	\$741,000
R5	Noxious Weeds	Acres	425,815	\$2.01	\$0	\$0	\$428,000	\$428,000	\$856,000
R7	Fence Repair	Miles	390	\$4,082.05	\$0	\$1,592,000	\$0	\$0	\$1,592,000
R14	Facilities Improvements	Acres	9	\$1,222.22	\$0	\$11,000	\$0	\$0	\$11,000
R16	Monitoring	Acres	425,815	\$0.26	\$0	\$37,000	\$37,000	\$37,000	\$111,000
TOTAL COSTS					\$1,640,000	\$8,252,000	\$475,000	\$475,000	\$10,842,000

BRUNEAU FIELD OFFICE

COST SUMMARY TABLE.	Planned Action	Unit	# Units	Unit Cost	FY07	FY08	FY09	FY10	Spec. # Totals
R3	Aerial Seeding	Acres	7,800	8	0	60,000	0	0	60,000
R3	Aerial Seed Purchase	Acres	7,800	16	0	126,000	0	0	126,000
R5	Noxious Weeds	Acres	7,802	2	0	0	8,000	8,000	16,000
	TOTAL COSTS		2,500	81	0	186,000	8,000	8,000	202,000

MAPS

The following maps are attached to display treatment areas

- 1) Jarbidge Field Office BAR aerial seeding map
- 2) Jarbidge Field Office BAR invasive species map
- 3) Jarbidge Field Office BAR permanent fence repair map
- 4) Jarbidge Field Office BAR seeding map
- 5) Bruneau Field Office BAR map (all treatments included)

LAND USE PLAN CONSISTENCY

Jarbidge Field Office

The applicable land use plan for the BAR project area is the 1987 Jarbidge Resource Management Plan (RMP). The fire area included portions of 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 R2 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 reseeded projects in MUAs with objectives to improve 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 R3 Aerial Seeding The RMP states under the Soil, Water, and Air Section 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 statement within a WSA while still minimizing impacts to the area. It is also in conformance with the RMP.

Treatment/Activity R4 Seedling Planting (shrub/tree) The RMP states under the Terrestrial Wildlife section that actions should be taken to, “improve forage condition by establishing seedlings or plantings of bitterbrush on crucial mule deer winter range that presently has less than 30% palatable shrub composition by weight of the shrub component.” The bitterbrush plantings should help to accomplish this goal and are in conformance with the RMP.

Treatment/Activity R5 Noxious Weeds 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.

Treatment/Activity R7 Repair 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 new permanent fences are proposed. Permanent fence repair will include measures for bringing fences up to wildlife standards. These treatments are also in conformance with the RMP.

Treatment/Activity R14 Facilities/Improvements (Replacement of damaged signs) 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.” The replacement of the signs is in conformance 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) Provide for protection and conservation of rare and endangered plants within the PU. RM-5:
- 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 Big Horn 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, 2.3
- 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 than 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.

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.

The proposed treatments in this BAR plan conform to the 1983 Bruneau MFP. The BAR 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. – REHABILITATION ISSUES

Objectives. 1) To evaluate actual and potential long-term post-fire impacts to critical cultural and natural resources and identify those areas unlikely to recover naturally from severe wildland fire damage; 2) To develop and implement cost-effective plans to emulate historical or pre-fire ecosystem structure, function, diversity, and dynamics consistent with approved land management plans, or if that is infeasible, then to restore or establish a healthy, stable ecosystem in which native species are well represented; and 3) To repair or replace minor facilities damaged by wildland fire. 620DM3.4

Priorities. 1) To repair or improve lands damaged directly by a wildland fire; and 2) To rehabilitate or establish healthy, stable ecosystems in the burned area. 620DM3.8

Rehabilitation Issues

Jarbidge Field Office

1. Lands Unlikely to Recover Naturally. *Repair or improve lands unlikely to recover naturally from wildland fire damage by emulating historical or pre-fire ecosystem structure, function, diversity, and dynamics consistent with existing land management plans.*

Prior to the burn the area was dominated by several vegetation community groups including Wyoming Sagebrush/Bluegrass, Crested Wheatgrass, Wyoming Sagebrush/Bluebunch, Low Sagebrush/Bluebunch/Idaho Fescue and Mountain Big Sagebrush/Idaho Fescue. A total of 158 Ecological Site Inventory Points exist within or adjacent to the burn perimeter. These points were used in developing seeding locations and appropriate seed mix types. 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.

Sagebrush cover was eliminated on approximately 304,893 acres of BLM managed lands within the Murphy Complex. Since sagebrush does not resprout, or spread from interior islands at any great distance or rate, there is a need to replace substantial amounts of the sagebrush habitat which was lost.

2. Weed Treatments. *Chemical, manual, and mechanical removal of invasive species, and planting of native and non-native species, restore or establish a healthy, stable ecosystem even if this ecosystem cannot fully emulate historical or pre-fire conditions.*

The fire eliminated most of the vegetation and the probability of noxious and invasive weed invasion has increased as a result. The burn area contains many well traveled roads which could serve as a source for weed introduction. Approximately 191 miles of dozer line was constructed during suppression operations, which may serve as weed invasion corridors and seed sources. Continued treatment of weeds in the second and third years will help assist with the establishment of desirable native vegetation.

3. Tree Planting. *Tree planting to reestablish burned habitat, reestablish native tree species lost in fire, prevent establishment of invasive plants, and regenerating Indian trust commercial timberland as prescribed by a certified silviculturalist to not regenerate for ten years following the fire. NO ISSUE*

4. Repair/Replace Fire Damage to Minor Facilities. *Repair or replace fire damage to minor operating facilities (e.g., campgrounds, interpretive signs and exhibits, shade shelters, fences, wildlife guzzlers, etc.) [Rehabilitation may not include the planning or replacement of major infrastructure, such as visitor centers, residential structures, administration offices, work centers and similar facilities. Rehabilitation does not include the construction of new facilities that did not exist before the fire, except for temporary and minor facilities necessary to implement burned area rehabilitation efforts.]*

The fire burned through portions of 37 allotments. There are approximately 390 miles of allotment boundary and pasture fences on BLM land that were damaged by the fire that need to be repaired in order to properly manage the allotments after the area has recovered and rehabilitation objectives have been met.

The fire also damaged and/or destroyed nine (9) directional and information signs within the field office.

Bruneau Field Office

1. Lands Unlikely to Recover Naturally. *Repair or improve lands unlikely to recover naturally from wildland fire damage by emulating historical or pre-fire ecosystem structure, function, diversity, and dynamics consistent with existing land management plans.*

Sagebrush cover was eliminated on approximately 7,802 acres of BLM managed lands within the BFO portion of the Murphy Complex. Since sagebrush does not resprout, or spread from interior islands at any great distance, there is a need to replace substantial amounts of the sagebrush habitat which was lost.

Prior to the burn the area was dominated primarily by Wyoming big sagebrush/bluebunch wheatgrass and low sagebrush/bluebunch wheatgrass. The area located along the Nevada boarder consisted of primarily mountain big sagebrush/Idaho fescue and low sagebrush/Idaho fescue.

This area serves as important winter and early spring range for mule deer that depend on the sagebrush for food. The southern half of the burned area was burned by the 2000 McDonald Creek Fire. Aerial seeding efforts after that fire and some natural regeneration allowed sagebrush to gradually reestablish itself. The subsequent Murphy Complex consumed most all this young sagebrush. Because most of these young individuals were not yet producing seed, it is anticipated that the sagebrush seed bank is lacking. The natural recovery of sagebrush would be expected to be very slow in this area. The north half of this burn had not burned in the recent past and contained a good cover of sagebrush. However the lower elevations associated with this

area makes it more prone to cheat-grass invasion.

2. Weed Treatments. *Chemical, manual, and mechanical removal of invasive species, and planting of native and non-native species, restore or establish a healthy, stable ecosystem even if this ecosystem cannot fully emulate historical or pre-fire conditions.*

The fire eliminated most of the vegetation and the probability of noxious and invasive weed invasion has increased as a result. The burn area is also adjacent to many well traveled roads which could serve as a significant source for weed introduction. Continued treatment of weeds in the second and third years will help assist with the establishment of desirable native vegetation.

3. Tree Planting. NO ISSUE

4. Repair/Replace Fire Damage to Minor Facilities. *Repair or replace fire damage to minor operating facilities (e.g., campgrounds, interpretive signs and exhibits, shade shelters, fences, wildlife guzzlers, etc.) [Rehabilitation may not include the planning or replacement of major infrastructure, such as visitor centers, residential structures, administration offices, work centers and similar facilities. Rehabilitation does not include the construction of new facilities that did not exist before the fire, except for temporary and minor facilities necessary to implement burned area rehabilitation efforts.]*

The fire burned much of the Scotts Table Allotment and crossed into a small portion of the Pole Cr. / Alder Cr. Allotment. Approximately 1.5 miles of allotment fence needs to be reconstructed in order to properly manage the allotment after the area has recovered and rehabilitation objectives have been met.

PART 3. - DESCRIPTION OF TREATMENTS

Jarbidge Field Office Treatments

Issue 1. Actions to Repair/Improve Lands Unlikely to Recover Naturally

R2 Ground Seeding

A. Treatment/Activity Description. Approximately 19,343 acres have been identified to be drill seeded with bitterbrush. Seed would be placed in every 3rd box in the drill to help provide space between rows of shrubs. The areas drill seeded would be in a wandering pattern rather than straight line. These polygons are within critical mule deer winter range and burned with a severity high enough that the bitterbrush will not recover. Approximately 4,554 acres of areas with a high probability of cheatgrass expansion, will be chemically sprayed in the spring of 2008 and then drill seeded in the fall of 2008. Approximately 1,448 of these acres are within the Jarbidge River WSA. These areas will be seeded using the annual mix or the WSA mix, respectively. Prior to the drill seeding, cultural resources that may be affected by the treatment will be identified and flagged for avoidance.

B. How does the treatment relate to damage or changes caused by the fire? Substantial amounts of critical mule deer winter range were affected by the fire. Drill seeding of bitterbrush will help ensure recovery of this important habitat. The areas identified for chemical treatment

and drill seeding are those acres on which seeding alone would not be effective. As with any drill seeding, the probability of success is directly correlated with the precipitation and weather received after the seeding occurs.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Current BLM policy (handbook H-1742) states that ES&R treatments must be consistent with wildlife habitat management objectives in approved Land Use Plans. The Jarbidge RMP states that we should “Manage big game habitat to support increased numbers of mule deer, pronghorn, and bighorn sheep.” Both drill seeding and hand planting polygons have been delineated for treatment. Drill seeding is more cost effective, especially in terrain that is suitable for a rangeland drill. The RMP also states that we should work to control the spread of noxious weeds when possible. The combination chemical and seeding treatment should reduce the expansion of cheatgrass within these areas.

Annual Seed Mix (3,106 acres)		WSA Mix (1,448 acres)	
Species	Rate (lbs/acre)	Species	Rate (lbs/acre)
Sandbergs Bluegrass	1.1	Bluebunch Wheatgrass	5
Bottlebrush Squirreltail	1.7	Sandbergs Bluegrass	0.5
Bluebunch Wheatgrass	3.5	Bottlebrush Squirreltail	1
Lewis Flax	0.05	Balsamroot	0.3
Alfalfa	0.4	Yarrow	0.1
Sainfoin	2	Winterfat	0.5
		Four Wing	0.5
Total lbs / acre	8.75	Total lbs / acre	7.9

R3 Aerial Seeding

A. Treatment/Activity Description. Approximately 256,741 acres have been delineated for aerial seeding in the fall/winter of 2007-2008. Of these, 217,555 acres will be seeded with Wyoming Sagebrush, 29,824 acres with low sagebrush, and 9,363 acres with Mountain Sagebrush. Depending on funding, available contractors and seed, the seed may be flown on in strips (to increase the coverage area) and treatment may occur over the life of the BAR plan (3 years).

B. How does the treatment relate to damage or changes caused by the fire? Prior to the burn approximately 304,893 acres were classified as having a sagebrush over story. Since sagebrush does not resprout or spread quickly from islands, aerial seeding is required to replace an essential habitat component.

C. Why is the treatment/activity reasonable, within policy, and cost effective? ESR policy currently states that “the planting of shrubs for the purpose of vegetation of wildlife habitat recovery is an appropriate use of 2881 funds. Language in the Jarbidge RMP also states that “Seed mixes for range improvement projects and fire rehabilitation projects will include a mixture of grasses, forbs, and shrubs that benefit sage grouse.” Since Wyoming sagebrush is not a species that resprouts, seeding will allow the area to get a jump start on having structure and cover sufficient enough to support wildlife. Without treatment sagebrush may eventually re-colonize the area but at a much slower rate.

R4 Seedling Planting (shrub/tree)

A. Treatment/Activity Description. Approximately 10,667 acres of bitterbrush will be hand planted within critical mule deer winter range. These areas are too steep or are inaccessible to drilling equipment and therefore hand planting is the only treatment option. Shrubs will be planted using variety of techniques including planting bars and chain saw powered augers to dig holes. Shrubs may be planted in both the early spring or in the fall. Shrub seedlings may include either containerized or bare root stock. Spacing between bitterbrush seedlings would be roughly 35 feet for a total of approximately 30 seedlings per acre.

B. How does the treatment relate to damage or changes caused by the fire? This treatment will help address the loss of critical mule deer winter range. These areas are not suitable for drill seeding and in order to achieve habitat connectivity, need to be treated.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Current BLM policy (handbook H-1742) states that ES&R treatments must be consistent with wildlife habitat management objectives in approved Land Use Plans. The Jarbidge RMP states that we should “Manage big game habitat to support increased numbers of mule deer, pronghorn, and bighorn sheep.” Both drill seeding and hand planting polygons have been delineated for treatment. In order to build community and partner support, volunteers will be used when possible as well as local crews for planting.

Issue 2. Weed Treatments

R5 Noxious Weeds

A. Treatment/Activity Description. This treatment includes inventory and treatment of weed populations discovered within the burn area on approximately 425,815 acres. This treatment also includes out year chemical treatment of invasive species such as cheatgrass, preparing a seedbed for planting or reducing competition to allow for native recovery. A total of 70,026 acres of potential annual grass invasion areas have been identified within the burn perimeter.

B. How does the treatment relate to damage or changes caused by the fire? The use of heavy equipment (engines) to suppress the fire, the creation of 191 miles of dozer line and the fires close proximity to major travel routes for the field office greatly increase the chances of discovering the spread of existing populations and new populations post burn. Detection and treatment on a burn this size is a substantial workload commitment. To make inventory more effective, everyone doing work within the burn area is responsible for recording weed occurrence. Chemical treatment for seed bed preparation or for reduction in cheatgrass competition to ensure native recovery is essential on a burned area of this size. Since the fire was so large, it is not logistically possible to treat all of the needed areas the first year. Drill seeding in out years will be more effective with a prepared seedbed.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Discovery and treatment of noxious weed infestations is more cost-effective if caught when small, rather than waiting for the population to grow. 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. Current policy direction is to seed only areas where the probability of success is high and to allow for native recovery where possible. Targeting cheatgrass through chemical application in areas where native recovery can occur with a reduction in competition from invasive plants follows current policy direction. Treatment in out years is also allowed under current policy and pre-treatment of the seed bed should increase the chances of treatment

success.

Issue 4. Repair/Replace Fire Damage to Minor Facilities

R7 Repair Fence/Gate

A. Treatment/Activity Description. Approximately 390 miles of fence, 1,100 wooden H-braces, and 200 wooden corners need to be replaced. The H-braces and corners will be replaced with steel in order to make the treatment more cost effective. The interior management fences would be reconstructed or repaired to BLM fence standards.

B. How does the treatment relate to damage or changes caused by the fire? The fire burned portions of 37 allotments within the Jarbidge Field Office. In order to allow for proper livestock management during the closure and to help sustain the seeded areas after the closure is lifted the pasture fences need to be repaired.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The cost of repairing the fence, H-braces, and corners is low relative to the investment of the seeding treatments that are proposed within the burn area. Given fire return intervals within the Jarbidge Field Office these treatment types are more cost effective and permanent. In this case, replacing the wooden H-braces and corners with steel posts incurs a greater cost now but will save money in the long run should the area burn again. Fence repair contracts typically run \$2,622 per mile. This cost is much lower than construction of new fence.

R14 Facilities/Improvements (Replacement of damaged signs)

A. Treatment/Activity Description. Replace approximately 9 directional and information signs which were destroyed as a result of the fire. These signs will need to be replaced in order for the public to safely navigate throughout the field office.

B. How does the treatment relate to damage or changes caused by the fire? Adequate directional and information signs were in place before the fire directing visitors to specific destinations, features, and/or points of interest. Replacement of these signs will be effective in providing the visitor with directional information, a safer experience, enhancing the public's awareness and appreciation of the public lands and waters.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Directional and informational signing on BLM lands accomplish the purpose of providing directions, enhancing the visitor's experience, and improving resource/visitor protection. All replacement signs will follow the guidelines and specifications detailed in the Jarbidge Field Office Sign Plan.

Bruneau Field Office

R3 Aerial Seeding

A. Treatment/Activity Description. Approximately 7,800 acres have been delineated for aerial sagebrush seeding in the fall/winter. Depending on funding, available contractors and seed, the seed may be flown on in strips (to increase the coverage area) and treatment may occur over the life of the BAR plan (3 years).

B. How does the treatment relate to damage or changes caused by the fire? Prior to the burn approximately 7,800 were classified as having sagebrush over story. Since sagebrush does not sprout or spread quickly from islands, aerial seeding is required to replace an essential

habitat component.

C. Why is the treatment/activity reasonable, within policy, and cost effective? ESR policy currently states that “the planting of shrubs for the purpose of vegetation of wildlife habitat recovery is an appropriate use of 2881 funds. The 1983 Bruneau MFP directs the BFO to manage this area for sage-grouse and for spring, fall, and winter mule deer range

Since Wyoming sagebrush is not a species that resprouts, seeding will allow the area to get a jump start on having structure and cover sufficient enough to support wildlife. Without treatment sagebrush may eventually re-colonize the area but may take many years or decades to do so, especially in light of the recent 2000 McDonald Creek Fire.

Issue 2. Weed Treatments

R5 Noxious Weeds

A. Treatment/Activity Description. This treatment includes inventory and treatment of noxious weed populations discovered within the burn area and follow up weed treatments from infestations inventoried in the emergency stabilization plan.

B. How does the treatment relate to damage or changes caused by the fire? Prior to the burn there were no known weed infestations within the perimeter. The use of heavy equipment (engines) to suppress the fire and the fires close proximity to major travel routes for the field office greatly increase the chances of discovering a population post burn.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Discovery and treatment of noxious weed infestations is more cost-effective if caught when small, rather than waiting for the population to grow. 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. Treatment in out years is also allowed under current policy.

Issue 4. Repair/Replace Fire Damage to Minor Facilities

R7 Repair Fence/Gate

A. Treatment/Activity Description. Approximately 2.0 miles of fence repair, including wooden H-braces, and wooden corners need to be replaced. The H-braces and corners will be replaced with steel in order to make the treatment more cost effective. The interior management fences would be reconstructed or repaired to BLM fence standards.

B. How does the treatment relate to damage or changes caused by the fire? The fire burned much of the Scotts Table Allotment and crossed into a small portion of the Pole Creek/Alder Creek Allotment. Approximately 1.5 miles of allotment fence needs to be reconstructed in order to properly manage the allotment after the area has recovered and rehabilitation objectives have been met.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The cost of repairing the fence, H-braces, and corners is low relative to the investment of the seeding treatments that are proposed within the burn area. Given fire return intervals within the Bruneau Field Office are accelerating these treatments are more cost effective and permanent. In this case, replacing the wooden H-braces and corners with steel posts incurs a greater cost now but will save money in the long run should the area burn again. Fence repair contracts typically run \$2,622 mile. This cost is substantially lower than construction of new fence.

PART 4. - INDIVIDUAL TREATMENT SPECIFICATIONS

JARBIDGE FIELD OFFICE

			FY07	FY08	FY09	FY10	Total Costs
Rehabilitation		Units					
R1	<i>Planning (Plan Prep/Project Mangt)</i>						
	Project Management State Office	WM's			4,000	4,000	8,000
	Project Management Field Office	WM's		4,000	4,000	4,000	12,000
	Travel/Vehicles	Total		4,000	2,000	2,000	8,000
	Total		0	8,000	10,000	10,000	28,000
R2	<i>Ground Seeding/Spraying</i>						
07 seed	Seed	Total	1,145,000				1,145,000
		Total					0
bitterbrush	Labor	WM's		84,000			84,000
drill	Travel/Vehicles	Total		14,000			14,000
	Equipment Rental	Total		36,000			36,000
	Equipment Mobilization	Total		5,000			5,000
	Seed	Total		1,160,000			1,160,000
	Supplies/Materials	Total		2,000			2,000
	Drill FOR and Transportation	Total		130,600			130,600
							0
spray &	Spray Contract	Total		62,100			62,100
drill	Chemical	Total		24,900			24,900
	Labor	Total		2,000			2,000
	Equipment Mobilization	Total		6,000			6,000
	Seed	Total		327,000			327,000
	Seed Mixing	Total		3,000			3,000
	Seed Testing	Total		2,000			2,000
	Seed Storage	Total		2,000			2,000
	Supplies/Materials	Total		1,100			1,100
	Drill Contract	Total		37,300			37,300
	Contract Administration	WM's		8,000			8,000
	Drill FOR and Transportation	Total		21,000			21,000
	Total		1,145,000	1,928,000	0	0	3,073,000
R3	<i>Aerial Seeding/Spraying/Chaining</i>						
07 seed	Seed	Total	495,000				495,000
spray &	Spray Contract	Total		29,000			29,000
seed &	Chemical	Total		11,600			11,600
chain	Aerial Seed Contract	Total		17,400			17,400
	Chain Contract	Total		43,500			43,500
	Seed	Total		190,800			190,800
	Seed mixing / handling / testing/storage	WM's		4,000			4,000
	Equipment Mobilization	Total		6,000			6,000

	Travel/Vehicles	Total		3,000			3,000
	Supplies/Materials	Total		2,200			2,200
	Seed	Total		190,800			190,800
	Seed mixing / handling / testing	WM's		3,000			3,000
	Contract Administration	Total		8,000			8,000
							0
sagebrush	Aerial Seed Contract	Total		770,200			770,200
	Seed	Total		2,639,500			2,639,500
	Seed mixing / handling / testing/storage	WM's		6,000			6,000
	Travel/Vehicles	Total		2,000			2,000
	Contract Administration	Total		8,000			8,000
	Total		495,000	3,935,000	0	0	4,430,000
R4	Seedling Planting (Shrub/Tree)						
	Seedling Cost	Total		400,000			400,000
	Travel/Vehicles	Total		3,000			3,000
	Supplies/Materials	Total		2,000			2,000
	Contract	Total		320,000			320,000
	Contract Administration	WM's		16,000			16,000
	Total		0	741,000	0	0	741,000
R5	Noxious Weeds						
	Travel/Vehicles	Total			8,000	8,000	16,000
	Supplies/Materials	Total			50,000	50,000	100,000
	Contract	Total			350,000	350,000	700,000
	Contract Administration	WM's			20,000	20,000	40,000
	Total		0	0	428,000	428,000	856,000
R7	Fence Repair						
repairs	Fence Material	Total		585,000			585,000
	Labor	WM's		8,000			8,000
	Travel/Vehicles	Total		8,000			8,000
	Supplies/Materials	Total		4,000			4,000
	Contract	Total		975,000			975,000
	Contract Administration	WM's		12,000			12,000
	Total		0	1,592,000	0	0	1,592,000
R14	Facilities/Improvements						
	Labor	WM's		4,000			4,000
	Travel/Vehicles	Total		500			500
	Supplies/Materials	Total		6,500			6,500
	Total		0	11,000	0	0	11,000
R16	Monitoring						
	Labor	WM's		25,000	25,000	25,000	75,000
	Travel/Vehicles	Total		10,000	10,000	10,000	30,000
	Supplies/Materials	Total		2,000	2,000	2,000	6,000
	Total		0	37,000	37,000	37,000	111,000
	BURNED AREA REHABILITATION TOTALS		1,640,000	8,252,000	475,000	475,000	10,842,000

BRUNEAU FIELD OFFICE

BAR		FY07	FY08	FY09	FY10	Total Costs
R3	Aerial Seeding					
	Labor	0	1,950	0	0	
	Travel/Vehicles	0	1,950	0	0	
	Equipment Mobilization	0	0	0	0	
	Supplies/Materials	0	1,170	0	0	
	Contract	0	46,800	0	0	
	Contract Administration	0	7,800	0	0	
	Total	0	60,000	0	0	60,000
R3	Aerial Seed					
	Seed Aerial Fall 2007		124,800			
	Seed Aerial Fall 2008		0			
	Seed Mixing	0	780	0	0	
	Total	0	126,000	0	0	126,000
R5	Noxious Weeds					
	Labor	0	0	3,901	3,901	
	Travel/Vehicles	0	0	1,951	1,951	
	Chemical Purchase	0	0	1,560	1,560	
	Supplies/Materials	0	0	390	390	
	Contract	0	0	0	0	
	Contract Administration	0	0	0	0	
	Total	0	0	8,000	8,000	16,000
	BURNED AREA REHABILITATION	0	186,000	8,000	8,000	202,000

The following three tables show species funded with 2007 dollars. They are being applied at the same time as the Emergency Stabilization treatments.

Jarbidge

ES Drill Seeding - Thurbers 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
Munroe Globemallow	0.675	0.8	33,750	500,000	50,000	13,139	0.1	1,300	90.00	117,000.00
TOTALS		0.8					0.1	1,300		117,000.00

ES Drill Seeding - 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
Arrowleaf Balsamroot	0.75	0.3	12,375	55,000	16,500	45,720	0.3	13,700	45.00	616,500.00
Fourwing Saltbush	0.31	0.2	8,525	55,000	27,500	45,720	0.5	22,850	18.00	411,300.00
TOTALS		0.5					0.8	36,550		1,027,800.00

ES Aerial Seeding - WSA Mix	% PLS	PLS seeds/sq foot	PLS seeds per acre	Seeds lb bulk	Total seeds/acre bulk	Aerial Seeding (acres)	Lbs/acre or	Total Pounds	Cost per lb	Total Costs
Arrowleaf Balsamroot	0.75	0.3	12,375	55,000	16,500	13,195	0.3	3,950	45.00	177,750.00
Winterfat	0.30	0.4	16,500	110,000	55,000	13,195	0.5	6,600	30.00	198,000.00
Fourwing Saltbush	0.31	0.2	8,525	55,000	27,500	13,195	0.5	6,600	18.00	118,800.00
TOTALS		0.9					1.3	17,150		494,550.00

The following tables are applicable to treatments outlined in the BAR Plan and are associated with the BAR treatments outlined in Part 3 Treatment Descriptions of this plan.

WSA Mix	% PLS	PLS seeds/sq foot	PLS seeds per acre	Seeds lb bulk	Total seeds/acre bulk	Aerial Seeding (acres)	Lbs/acre or	Total Pounds	Cost per lb	Total Costs
Anatone Bluebunch WG	0.765	12.3	535,500	140,000	700,000	1,448	5	7,250	12.00	87,000.00
Sandbergs Bluegrass	0.72	7.9	342,000	950,000	475,000	1,448	0.5	750	12.00	9,000.00
Bottlebrush Squirreltail	0.72	3.1	136,800	190,000	190,000	1,448	1	1450	24.00	34,800.00
Arrowleaf Balsamroot	0.75	0.3	12,375	55,000	16,500	1,448	0.3	450	45.00	20,250.00
Western Yarrow	0.84	5.2	226,800	2,700,000	270,000	1,448	0.1	150	25.00	3,750.00
Winterfat	0.3	0.4	16,500	110,000	55,000	1,448	0.5	750	30.00	22,500.00
Fourwing Saltbush	0.31	0.2	8,525	55,000	27,500	1,448	0.5	750	18.00	13,500.00
TOTALS		29.4					7.9	11,550		190,800.00

Sagebrush	% 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
Wyoming Big Sagebrush	0.11	3.2	137,500	2,500,000	1,250,000	217,554	0.5	108,800	18.00	1,958,400.00
Low Sagebrush	0.11	2.5	107,800	980,000	980,000	29,823	1	29,840	20.00	596,800.00
Mountain Big Sagebrush	0.2	5.1	222,500	2,225,000	1,112,500	9,362	0.5	4,680	18.00	84,240.00
TOTALS								143,320		2,639,440.00

Annual Mix	% PLS	PLS seeds/sq foot	PLS seeds per acre	Seeds lb bulk	Total seeds/acre bulk	Drill Seeding (acres)	Lbs/acre or # of seedlings	Total Pounds	Cost per lb or seedling	Total Costs
Sandbergs Bluegrass	0.72	17.3	752,400	950,000	1,045,000	217,554	1.1	3,400	12.00	1,958,400.00
Bottlebrush Squirreltail	0.72	5.3	232,560	190,000	323,000	3,106	1.7	5,300	24.00	127,200.00
Anatone Bluebunch WG	0.765	8.6	374,850	140,000	490,000	3,106	3.5	10,900	12.00	130,800.00
Appar Lewis Flax	0.784	0.4	16,464	420,000	21,000	3,106	0.05	150	18.00	2,700.00
Ladak Alfalfa	0.8	1.7	73,600	230,000	92,000	3,106	0.4	1,250	3.00	3,750.00
Eski Sainfoin	0.8	1.0	44,800	28,000	56,000	3,106	2	6,200	3.50	21,700.00
TOTALS		34.3					8.75	27,200		2,244,550.00

	% 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
Seed Name										
Antelope Bitterbrush	0.85	0.88	38,250	15,000	45,000	19,343	3	58,000	20.00	1,160,000.00
TOTALS		0.88					3	58,000		1,160,000.00

BRUNEAU AERIAL SEED

Seed Type/Variety	PLS Rating	Seeding Acres	Lbs/ Ac Bulk	Lbs/ Ac PLS	# Seeds/ Lb Bulk	# Seed Lb PLS	# Seed/ Ac Bulk	# Seed/ Ac PLS	# Seed/Sq Ft PLS	Total Lbs PLS	Total Lbs Bulk	Cost Per Lb	Total Cost
Big Sagebrush, Wyoming	0.1600	7,800	1.0	0.16	2,500,000	400,000	2,500,000	400,000	9.2	1,248	7,800	\$16.00	\$124,800.00
TOTALS		7,800	1.0	0.2			2,500,000	400,000	9.2	1,248	7,800		\$124,800.00

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

Proposed Native Plants in Seed Mixture

1. Are the native plants proposed for seeding adapted to the ecological sites in the burned area?
 Yes No Rationale: There are 5 major potential vegetation types within the burn area they include; 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. All forb, grass, and shrub species were chosen based on known ecological sites.
2. Is seed or seedlings of native plants available in sufficient quantity for the proposed project?
 Yes 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 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 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. In areas where there are known invasive plants, chemical pre treatment will occur to reduce 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 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 No Rationale: The seed mixes proposed are predominately native. There are three forb species being used which are non-native; alfalfa, sainfoin and Lewis flax. These three species will help meet wildlife habitat objectives outlined in the BAR 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 No Rationale. The three 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 No Rationale: None of the species proposed are known to move off site or interbreed with native plants. They have been used successfully in previous ES and ER projects throughout the field office.

PROPOSED SEED SPECIES – NATIVES AND NON-NATIVES (Jarbidge Field Office)

Non-native Plants	Native Plants
Alfalfa (<i>Medicago sativa</i>)	Wyoming Sagebrush (<i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>)
Sainfoin (<i>Onobrychis viciaefolia</i>)	Low Sagebrush (<i>Artemisia arbuscula</i>)
Lewis Flax (<i>Linum lewsi</i>)	Mountain Big Sagebrush (<i>Artemisia tridentata</i> ssp. <i>vaseyana</i>)
	Bitterbrush (<i>Purshia tridentata</i>)
	Bluebunch Wheatgrass (<i>Pseudogeneria spicata</i>)
	Bottlebrush Squirreltail (<i>Elymus elymoides</i>)
	Sandbergs Bluegrass (<i>Poa secunda</i>)
	Western Yarrow (<i>Achillea millefolium</i>)
	Balsamroot (<i>Balasmorhiza sagittata</i>)
	Winterfat (<i>Krasheninnikovia lanata</i>)
	Four Wing Saltbush (<i>Atriplex canescens</i>)

PART 5. – COST-RISK ANALYSIS

Probability of Rehabilitation Treatments Successfully Meeting Objectives

Action/ Spec. #	Planned Action	Unit (acres, WMs, number)	# Units	Total Cost	% Probability of Success
R2	Ground Seeding	acres	19,343	\$3,073,000	85
R3	Aerial Seeding	acres	256,741	\$4,616,000	60
R4	Seedling Planting (shrub/tree)	acres	10,667	\$741,000	85
R5	Noxious Weeds	acres	425,815	\$872,000	90
R6	Soil Stabilization (other than seeding/planting)				
R7	Fence Repair/Gate	miles	330	\$1,592,000	100
R8	Cattle Guard				
R9	Road/Trail Water Diversion				
R10	Cultural Protection (stabilization/patrol)				
R11	Insect/Rodent Control				
R12	Horse Gather				
R13	Tree Hazard Removal				
R14	Facilities/Improvements	Number miles	9 signs 3	\$11,000	100
R15	Closures (OHV, livestock, area)				
	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 rehabilitation 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 No Rationale for answer: The proposed action has been designed to limit impacts to natural resources as well as private property. Seeding shrub species back into the burn area, drill/aerial seeding and conducting noxious weed treatment to limit the spread of non-native species and noxious weeds will not only help reduce impacts to natural resources on public lands but on private lands as well.

No Action Yes No Rationale for answer: The no action alternative does not allow for proactive treatment of identified natural resource issues. There are substantial risks to big

game winter range and watershed health if no treatment actions are proposed. Portions of the treatment areas would likely recover on their own but many areas may type convert to non-native species or spend a prolonged amount of time in undesirable early successional states.

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

Proposed Action Yes No Rationale for answer: The treatments included within the proposed action have been used successfully as fire rehabilitation treatments. As with any seeding/planting treatments success ultimately depends on the amount of precipitation received after the seeding has been completed. Costs for the treatments have been minimized and treatment is only occurring where the area is not capable of recovering on its own.

No Action Yes No Rationale for answer: The chances of meeting fire rehabilitation goals and objectives outlined in the land use plans, Normal Year Fire Rehabilitation plan, and national ES&R policy are low if the no action alternative is implemented. Portions of the burn area will recover on their own, but the areas proposed for treatment under the ER plan will likely not recover. The cost of attempting to return the area to its Potential Natural Vegetation type and within its normal fire return interval would greatly exceed the cost of implementing the ER plan.

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

Proposed Action or No Action

Comments: The proposed action has been specifically developed to meet fire rehabilitation objectives outlined in the land use plans and the Normal Year Fire Rehabilitation Plan. The proposed treatments have been developed to help ensure success and to minimize the cost of implementation.

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

Treatment / Activity: R4 Seedling Planting (shrub/tree)

- 1) Objective of this treatment is establish bitterbrush seedlings in critical mule deer winter range within the burn perimeter.
- 2) Implementation monitoring will ensure that the plants are planted according to specifications outlined.
- 3) Effectiveness monitoring methods: Long term monitoring will also be established in areas where shrubs were hand planted to evaluate the survival of planted shrubs. The number of seedlings along transects will be counted along with their survival and growth for a period of 3 years. To the extent possible, causes of mortality will be identified (stem girdled, browsing – top removal, drought/competition, trampling). Monitoring would be done at least three times per year (late spring, mid-summer, and fall). Transect locations would be GPS'ed to facilitate finding the start points.

Treatment / Activity: R14 Facilities/Improvements (Sign Replacement)

- 1) Objective of this treatment is to replace damaged and/or destroyed directional and information signs.
- 2) Implementation monitoring will be accomplished by BLM employees who will conduct the sign replacement ordering and replacement operation.
- 3) Effectiveness monitoring will include planned sign maintenance; condition surveys and message review to determine whether it is still valid and current.

Treatment/ Activity: R7 Repair Fence/Gate

- 1) Objective of this treatment is to repair existing interior pasture fences to allow for proper livestock management.
- 2) Implementation monitoring will take place to ensure that the fence is rebuilt on time and

to current BLM standards.

- 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 R2 Ground Seeding

- 1) Object of this treatment is to re-establish bitterbrush within the burn perimeter in order to help promote recovery of the area and to prevent the further fragmentation of mule deer winter range.
- 2) Implementation monitoring includes ensuring that the seed is planted at the proper time, in the correct areas and using approved methods.
- 3) Effectiveness monitoring methods: Permanent monitoring plots (permanent line transects with the distance measured to emerging bitterbrush) will be established in areas drill seeded to bitterbrush. The number of seedlings along transects will be counted and their survival and growth for a period of 3 years.

Jarbidge / Bruneau Field Office

Treatment/ Activity: R3 Aerial and Ground Seeding

- 1) Objective of this treatment is to establish native shrubs, grasses and forbs within the burn perimeter in order to re-establish sage grouse habitat and restore proper ecosystem structure and function.
- 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 and interested publics)

Density: Density would be used to quantify seedling establishment success for the first three growing seasons. A 0.5m² 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 aid in determining when livestock grazing can be resumed on the affected allotments. If the preponderance of evidence indicates the four 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 an allotment.

Treatment/Activity: R5 Noxious Weeds

- 1) 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 **R3 Aerial 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 rehabilitated areas would be completed by the methods adopted by the Jarbidge FO, and Bruneau 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 monitoring objectives are met. 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 seeding objectives (To determine if treatments were successful)

1. On aerially seeded sagebrush establish sagebrush densities of 1 plant/10m².
2. On mechanical seeded perennial vegetation: establish seeded grass densities of 5 plants/m².
3. Bitterbrush seedlings will be an average height of 8-10 inches, within 4 years.

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

**REVIEW, APPROVALS, AND PREPARERS
REHABILITATION PLAN TEAM MEMBERS**

Position	Team Member (Agency/Office)	Initial and Date
Team Leader/ Fire Ecologist	Jennifer Mata (BLM/Jarbidge FO)	JM 9/04/07
Operations/ Rehab Specialist	Scott Uhrig (BLM/Twin Falls DO)	SU 9/04/07
NEPA Compliance & Planning	Jeff Ross (BLM/Jarbidge FO)	JR 9/04/07
Botanist	Sheri Hagwood (BLM/Jarbidge FO)	
Cultural Resources/Archeologist	Jeff Ross (BLM/Jarbidge FO)	JR 9/04/07
Supervisory Rangeland Mgt. Specialist	Arnie Pike (BLM/Jarbidge FO)	ALP 9/4/07
Wildlife Biologist	Jim Klott (BLM/Jarbidge FO)	JK 9-04-2007
GIS Specialist	Bonnie Ross (BLM/Jarbidge FO)	BR 9/04/07
Fisheries Biologist	Kate Forster (BLM/Twin Falls DO)	
Recreation Planner	Max Yingst (BLM/Jarbidge FO)	MY 9/4/07
Bruneau Field Office		
Rangeland Mgt. Specialist	Jon Haupt (BLM/Bruneau FO)	JH 8/17/07
Operations	Cindy Fritz (BLM/Boise DO)	CF 9-6-07
Wildlife Biologist	Helen Ulmschneider (BLM/Bruneau FO)	HU 9/6/07
Fisheries Biologist	Bruce Zoellick	BZ 9-5-07

EMERGENCY REHABILITATION 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:

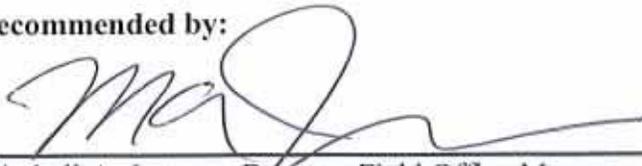
Bill Baker, Twin Falls District Manager

DATE

EMERGENCY REHABILITATION 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:



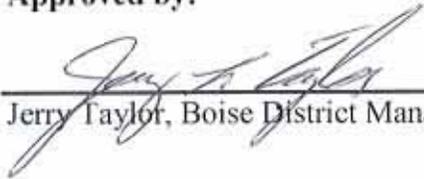
Mitchell A. Juarena, Bruneau Field Office Manager

Juarena

6 Sep 07

DATE

Approved by:



Jerry Taylor, Boise District Manager

9/6/07

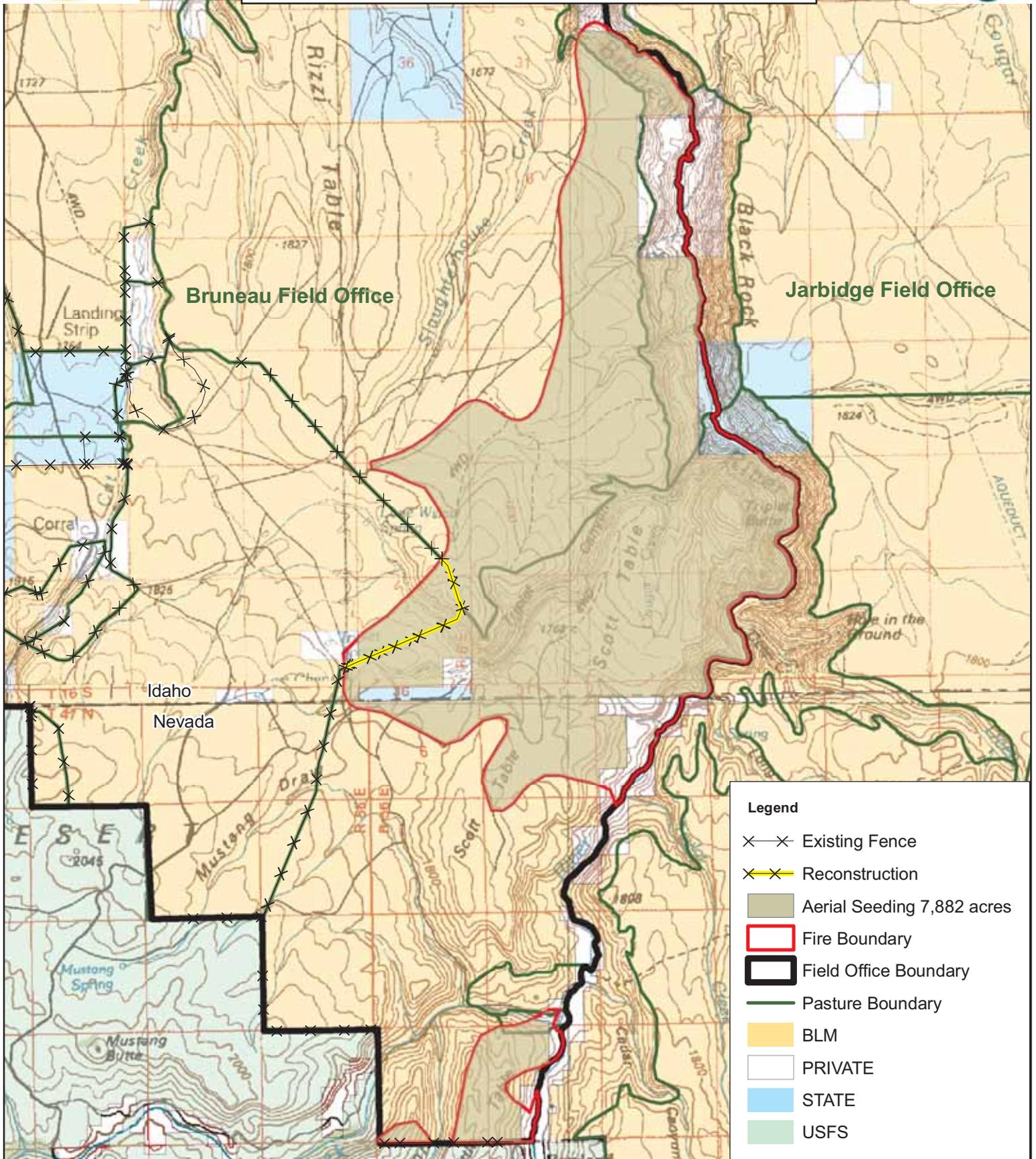
DATE

FUNDING APPROVAL

Rehabilitation plans are approved through the AWP, on a priority basis by the Interior BAER Coordinators. Funding for prior year fires is typically through the AWP the following year. If it becomes necessary to prioritize, this will be done by the IBAER coordinators based on relative values to be protected, commensurate with rehabilitation costs.



DR62 Murphy Complex Fire Bruneau Field Office Burned Area Rehabilitation Plan



0 0.25 0.5 1 1.5 2 Miles

1:71,600



No warranty is made by the Bureau of Land Management. The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.