

**COLD FIRE**  
 BURNED AREA REHABILITATION PLAN

BLM/BOISE DISTRICT/FOUR RIVERS FIELD OFFICE  
 IDAHO

FIRE BACKGROUND INFORMATION

Fire Name	Cold
Fire Number	DUY5
District/Field Office	Boise/Four Rivers
Admin Number	ID 102
State	Idaho
County(s)	Elmore
Ignition Date/Cause	07-29-07/Human
Date Contained	08-01-07
Jurisdiction	
BLM	2,778
State	576
Private	213
Other	0
Total Acres	3,567
Total BAR Plan Costs	\$ 190,000

Status of Plan Submission (check one box below)

<input checked="" type="checkbox"/>	Initial Submission
<input type="checkbox"/>	Updating or Revising the Initial Submission
<input type="checkbox"/>	Amendment

## PART 1. REHABILITATION PLAN SUMMARY

### BACKGROUND ON THE FIRE

The Cold Fire burned 2,778 acres of public lands located within the following Allotments: Hot Springs Allotment (1,126 acres), Hammett 4 Allotment (1,598 acres), and East Hammett Allotment (54 acres). The Hot Springs Allotment is grazed by cattle 4/10-6/30 (270 AUMS), 7/1-11/30 (5 AUMS) and 10/13-12/31 (311 AUMS). The Hammett 4 Allotment is grazed by cattle 4/10-6/30 (944 AUMs) and 10/15-12/31 (1,162 AUMs), and sheep trail through the allotment in June (100 AUMS).

Pre-fire vegetation along the northern extent of the fire above the rim, was characterized by Mountain big sagebrush intermixed with scattered occurrences of rabbitbrush, serviceberry and patches of bitterbrush forming a major shrub component. Low sagebrush occurred in shallow soil areas. The understory was dominated by perennial grasses and forbs which included bottlebrush squirreltail, bluebunch wheatgrass, pussytoes, lupine, eriogonum, and stoneseed. Pre-fire vegetation on the rocky slopes below the rim was primarily low sagebrush with an understory of primarily sixweeks fescue, western yarrow, bottlebrush squirreltail, and Thurber's needlegrass. The southern and eastern portion of the fire which is more gently sloped supported a pre-fire vegetation of Wyoming big sagebrush intermixed with low sagebrush. The understory was dominated by perennials (Sandberg's bluegrass, bottlebrush squirreltail, and western yarrow) with the scattered occurrence of areas dominated by cheatgrass.

The fire burned an area utilized by elk and mule deer during the winter. There is one abandoned sage grouse lek within the burned area.

### COST SUMMARY TABLE

Spec. #	Planned Action	Unit	# Units	Unit Cost	FY07	FY08	FY09	FY10	Spec. # Totals
R3	Aerial Seeding	Acres	1,368	24	0	16,000	17,000	0	33,000
R3	Aerial Seed Purchase	Acres	1,368	64	0	88,000	0	0	88,000
R4	Seedling planting	Acres	25,500	2.4	0	60,000	0	0	60,000
R5	Noxious Weeds	Acres	2,778	2.2	0	0	3,000	3,000	6,000
R7	Fence Repair/Gate	Miles	1.0	3,000	0	3,000	0	0	3,000
R15	Closures	Acres	0		0	0	0	0	0
R16	Monitoring (ES)	Acres	0		0	0	0	0	0
	TOTAL COSTS		2,778	68	0	167,000	20,000	3,000	190,000

### LAND USE PLAN CONSISTENCY

Not all the proposed actions listed below are addressed in the 1987 Jarbidge Resource Management Plan (RMP), but those not directly addressed are consistent with LUP Resource Management Guidelines.

1. Aerial Seeding (R3): The aerial broadcast of a perennial seed mixture comprised of a native forb, grass, and shrub is with, Jarbidge RMP, Resource Management Guidelines, Range Improvements and Treatments, “Interseeding and reseeding projects in MUAs with objectives to improve ecological condition to benefit wildlife or livestock will use shrub, forb and grass seed mixture that are normally found in that type of ecological zone/type.” In addition, the RMP, Resource Management Guidelines, Fire Management, Rehabilitation and Reduction Actions/Procedures, (7.), states “Seedings will include appropriate seed mixtures to replace wildlife habitat that burned.”
2. Seedling Planting (R4): The hand planting of bitterbrush seedlings as a treatment to restore the shrub structure lost by the fire is consistent with Jarbidge RMP, Resource Management Guidelines Terrestrial Wildlife, Mule Deer, “Improve forage condition by establishing seedings or plantings of bitterbrush four-wing saltbrush or other palatable shrub species on crucial mule deer winter range that presently has less than 30% palatable shrub composition by weight of the shrub component.
3. Noxious Weeds (R5): Monitoring the for the presence of noxious species, and conducting appropriate control measures is consistent with Jarbidge RMP, Resource Management Guidelines, Control of Noxious Weeds, “BLM districts will work with their respective county governments to monitor the location and spread of noxious weeds and to maintain up-to-date inventory records. 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 this purpose.”
4. Fence Repair/Gate (R7): Repair and/or replacement of allotment management fence damaged by the fire to provide a functional structure for the control of livestock grazing distribution, although not addressed in the Jarbidge RMP is consistent with Resource Management Guidelines, Fire Management, Rehabilitation and Reduction Actions/Procedures, (4.), “All grazing licenses issued that include areas recently burned and/or seeded areas will include a statement concerning the amount of rest needed in the seeding or burn area. Normally two years of rest will be necessary to protect these areas. This rested area may include remnant stands of desirable species that survived the fire.”
5. Livestock Closure (R15): Livestock are to be excluded from the burned area until monitoring results, documented in writing; show rehabilitation objectives have been met. In case of treatment failure, other factors may need to be considered, such as natural recovery of untreated areas, and need or reason to continue closure. This treatment is consistent with Jarbidge RMP, Resource Management Guidelines, Fire Management, Rehabilitation and Reduction Actions/Procedures, (4.), “All grazing licenses issued that include areas recently burned and/or seeded areas will include a statement concerning the amount of rest needed in the seeding or burn area. Normally two years of rest will be necessary to protect these areas. This rested area may include remnant stands of desirable species that survived the fire.”
6. Monitoring Effectiveness of Treatments (R16): Monitoring data would be collected from initiation of the proposed treatments through 2010. The collection of monitoring data to determine the effectiveness of fire rehabilitation treatments is not addressed in the Jarbidge RMP, but is consistent with the evaluation and assessment of the Resource Management Guidelines, Fire Management, Rehabilitation and Reduction Actions/Procedures statement “Public lands affected by the ,fire will be rehabilitated to accomplish multiple use objectives and designed to reduce fire size.”

## 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

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.

The pre-fire vegetation within the burned area was representative of a native perennial shrub/grass plant community with a relatively low occurrence of invasive annuals. The aerial seeding, seedling planting, and other BAR measures would restore shrub structure and inhibit the spread of invasive annuals.

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.

Noxious species are known to be present within and in the immediate vicinity of the burned area. Failure to locate and control possible existing noxious weed sites would lead to spreading of undesirable species.

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.

Bitterbrush patches were a major pre-fire vegetation component on the rim along the northern extent of the fire. Planting of bitterbrush seedlings would re-establish the pre-fire shrub structure.

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 repair and/or replacement of existing fence would provide a functional structure that is effective in controlling livestock grazing distribution.

**PART 3. - DESCRIPTION OF TREATMENTS**

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

**R3 - Aerial Seeding**

A. Treatment/Activity Description (Map 1): Aerial Seed Mix 1: 1,368 acres would be broadcast seeded in the fall/winter of 2007-2008 on terrain that lies above the rim. Aerial Seed Mix 2: 1,410 acres would be broadcast seeded on terrain that lies below the rim in the fall/winter 2007-2008.

Aerial Seed Mix 1

Variety	Approximate Acres	PLS lbs/acre
Western yarrow (White)	1,368	0.05
Sandberg’s bluegrass (Mtn Home)	1,368	0.5
Big sagebrush (Mountain)	1,368	0.1

Aerial Seed Mix 2

Variety	Approximate Acres	PLS lbs/acre
Western yarrow (White)	1,410	0.05
Sandberg’s bluegrass (Mtn Home)	1,410	0.5
Big sagebrush (Wyoming)	1,410	0.1

B. How does the treatment relate to damage or changes caused by the fire? The goal is to reestablish the perennial grass, forb, and shrub components of the ecosystem. The establishment and maintenance of perennial species would impede the post-fire increased spread of cheatgrass and other invasive annuals, and contribute to the stabilization of the recovering ecosystem. The success of the seeding treatment is dependent upon spring moisture and could range in effectiveness from 50-80%.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Specific costs of the aerial seeding are shown in the cost tables. Aerial broadcast seeding is the most efficient and effective way to plant a seed mixture comprised of very small seeds. This method insures seed contact with the soil is evenly broadcast over the burned area at the desired seed rate. Aerial seeding has been used to rehabilitate similar habitat types within the Four Rivers Field Office that have been burned by wildfire, with a fairly high rate of success during average or favorable growing

conditions. The selected perennial shrub and forb are suited to the site, and would compete with invasive annuals. Establishment of the selected perennials would protect watershed values, provide wildlife habitat and improve the functioning condition of the ecosystem.

### **R15 - Livestock Closure**

A. Treatment/Activity Description: Livestock closure of the eastern portion (1,598 acres) of the burned area, Hammett 4 Allotment, would be achieved through herding. Livestock would be excluded from the western portion (1,180 acres) of the burned area, Hot Springs and East Hammett Allotments, by repair of existing fences and construction of temporary protective fence considered in the ES. The burned area would be closed to livestock grazing until monitoring results, documented in writing; show rehabilitation objectives have been met. In case of treatment failure, other factors may need to be considered, such as natural recovery of untreated areas, and need or reason to continue closure.

B. How does the treatment relate to damage or changes caused by the fire? Closure of the area to livestock grazing would provide for the establishment of seeded species and achievement of BAR objectives.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Considering the significant cost of implementing the BAR, the exclusion of livestock grazing is a reasonable and cost effective method of facilitating the establishments of desired seeded species, and protecting this investment.

## **Issue 2. Weed Treatments**

### **R5 - Noxious Weeds**

A. Treatment/Activity Description: Starting in the spring of 2008, the 2,778 acre burned area would be surveyed for the presence of noxious species and appropriate control measures would be taken under the ES. Follow up surveys and monitoring/re-treatment of noxious weed sites would be conducted through 2010 under this BAR.

B. How does the treatment relate to damage or changes caused by the fire? The potential for noxious weeds to spread is amplified after a wildland fire disturbance. Wildfires foster the spread of noxious weeds by the burning and removal of competitive vegetation. The application of appropriate treatments would control the spread of noxious weeds. The effectiveness of controlling noxious weeds is related to the size and configuration of the weed population. The smaller and more uniform the noxious weed population, the more effective the control with anticipated 60-90% effectiveness.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Compliance with State and county laws requires the control of noxious weeds. The establishment and long-term maintenance of perennial seeded species could be jeopardized if noxious weeds are not controlled. Considering the significant cost of implementing the BAR, the treatment of noxious weeds is a

reasonable and cost effective method of protecting this investment and complying with State and county laws.

### **Issue 3. Tree Planting**

#### **R4 - Seedling Planting**

A. Treatment/Activity Description (Map 1): Bitterbrush seedling planting would be conducted in the spring of 2008. Along the northern extent of the fire 25,500 bitterbrush seedlings would be hand planted. Seedlings would be planted in approximate 16'x 16' spacing, covering 149 acres. Where possible, seedlings would be planted next to fire-killed bitterbrush and big sagebrush plants for shading and protection from browsing.

B. How does the treatment relate to damage or changes caused by the fire? Planting of bitterbrush seedlings would re-establish important elements of the fire-damaged ecosystem. The goal of the planting is to restore this species as primary habitat component. The success of a seedling planting is dependent on growing conditions (e.g. spring moisture) and suitability of site. The effectiveness of the seedling planting to meet objectives could range from 50-80%.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Specific costs of the bitterbrush seedling planting are shown in the cost tables. The establishment of bitterbrush would foster the achievement of the objective to return the functioning condition of the ecosystem to pre-fire levels. To afford protection and foster establishment, seedlings would be planted next to fire-killed bitterbrush and big sagebrush plants. Hand planting of seedlings has typically been used in similar situations, and is a much more reliable way of establishing shrubs as compared to the planting of seed. In particular, past attempts to drill or aerial seed bitterbrush have been unsuccessful.

### **Issue 4. Repair/Replace Fire Damage to Minor Facilities**

#### **R7 - Repair Fence/Gate**

A. Treatment/Activity Description: Repair and/or replace 1.0 miles of existing fence that was damaged by the fire. Repair of the existing fence would include replacing burned wooden brace structures with metal ones, and replacing damaged wire and steel posts as needed. Fence components damaged by the fire would be repaired and/or replaced. Fence repair would take place starting the fall/winter 2007.

B. How does the treatment relate to damage or changes caused by the fire? Repair and/or replacement of existing fence damaged by the fire is necessary in order to provide a functional structure for livestock grazing management.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Fence repair would provide for the effective management of livestock and is a reasonable and cost effective measure.

**PART 4. - INDIVIDUAL TREATMENT SPECIFICATIONS**

BAR		FY07	FY08	FY09	FY10	Total Costs
R1	Planning (plan pres/project Management)					
R3	Aerial Seeding					
	Labor	0	684	705	0	
	Travel/Vehicles	0	342	353	0	
	Equipment Mobilization	0	0	0	0	
	Supplies/Materials	0	205	212	0	
	Contract	0	13,680	14,100	0	
	Contract Administration	0	1,368	1,410	0	
	Total	0	16,000	17,000	0	33,000
R3	Aerial Seed					
	Seed Aerial Fall 2007		42,200			
	Seed Aerial Fall 2008		42,920			
	Seed Mixing/Handling/Testing	0	2,520	0	0	
	Total	0	88,000	0	0	88,000
R4	Seedling Planting (shrub/tree)					
	Labor	0	2,550	0	0	
	Travel/Vehicles	0	2,805	0	0	
	Supplies/Materials	0	1,275	0	0	
	Contract Seedling Purchase	0	21,675	0	0	
	Contract Seedling Planting	0	22,950	0	0	
	Contract Administration	0	8,925	0	0	
	Total	0	60,000	0	0	60,000
R5	Noxious Weeds					
	Labor	0	0	2,084	2,084	
	Travel/Vehicles	0	0	833	833	
	Chemical Purchase	0	0	556	556	
	Supplies/Materials	0	0	0	0	
	Contract	0	0	0	0	
	Contract Administration	0	0	0	0	
	Total	0	0	3,000	3,000	6,000
R7	Protective Fence Repair/Gate					
	Labor	0	300	0	0	
	Travel/Vehicles	0	250	0	0	
	Clearances	0	0	0	0	
	Fence Material	0	1,000	0	0	
	Contract Fence Construction	0	1,500	0	0	
	Contract Administration	0	200	0	0	
	Supplies/Materials	0	100	0	0	
	Total	0	3,000	0	0	3,000
R15	Closures (OHV/livestock/area)					
	Labor	0	0	0	0	
	Travel/Vehicles	0	0	0	0	

BAR		FY07	FY08	FY09	FY10	Total Costs
	Supplies/Materials	0	0	0	0	
	Contract	0	0	0	0	
	Contract Administration	0	0	0	0	
	Total	0	0	0	0	0
R16	Monitoring (funded in ES plan)					
	Labor	0	0	0	0	
	Travel/Vehicles	0	0	0	0	
	Supplies/Materials	0	0	0	0	
	Contract	0	0	0	0	
	Contract Administration	0	0	0	0	
	Total	0	0	0	0	0
	<b>BURNED AREA REHABILITATION</b>	0	167,000	20,000	3,000	190,000

AERIAL SEED MIX 1													
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
Sandberg's Bluegrass, Mtn Home	0.7200	1,368	0.7	0.5	950,000	684,000	665,000	478,800	11.0	689	1,000	\$15.00	\$15,000.00
White Western Yarrow	0.8100	1,368	0.06	0.05	2,700,000	2,187,000	162,000	131,220	3.0	66	100	\$20.00	\$2,000.00
Big Sagebrush, Mountain	0.1600	1,368	1.0	0.16	2,250,000	360,000	2,250,000	360,000	8.3	219	1,400	\$18.00	\$25,200.00
<b>TOTALS</b>		<b>4,104</b>	<b>1.8</b>	<b>0.7</b>			<b>3,077,000</b>	<b>970,020</b>	<b>22.3</b>	<b>975</b>	<b>2,500</b>		<b>\$42,200.00</b>

AERIAL SEED MIX 2													
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
Sandberg's Bluegrass, Mtn Home	0.7200	1,410	0.7	0.5	950,000	684,000	665,000	478,800	11.0	711	1,000	\$15.00	\$15,000.00
White Western Yarrow	0.8100	1,410	0.06	0.05	2,700,000	2,187,000	162,000	131,220	3.0	69	100	\$20.00	\$2,000.00
Big Sagebrush, Wyoming	0.1600	1,410	1.0	0.16	2,500,000	400,000	2,500,000	400,000	9.2	226	1,440	\$18.00	\$25,920.00
<b>TOTALS</b>		<b>4,230</b>	<b>1.8</b>	<b>0.7</b>			<b>3,327,000</b>	<b>1,010,020</b>	<b>23.2</b>	<b>1,005</b>	<b>2,540</b>		<b>\$42,920.00</b>

SEEDLINGS

Seedling Species	Acres of Seedlings Planted	# of Seedlings / Acre	Total # of Seedlings	Cost / Seedling	Total Cost
Antelope Bitterbrush	149	172	25,500	\$0.80	\$0.00

NATIVE PLANT WORKSHEET

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: Native species being proposed for seeding are known to occur in the local area.
2. Is seed or seedlings of native plants available in sufficient quantity for the proposed project?  
 Yes  No  Rationale: It is anticipated that sufficient quantities of the proposed native plant seeds will be available from the commercial market.
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 quantity and subsequent cost of native seed proposed is reasonable.
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: They would establish at this site with moisture falling at the appropriate time and in the appropriate amounts, as indicated by previous rehabilitation projects in the area.
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: The majority of the livestock grazed is during the plant dormant fall/winter period which would foster the maintenance of seeded native species.

PROPOSED SEED SPECIES

Non-native Plants	Native Plants
---	Western yarrow (White)
---	Sandberg's bluegrass (Mtn Home)
---	Big sagebrush (Wyoming)
---	Big sagebrush (Mountain)
	Antelope bitterbrush

**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
R3	Aerial Seeding	acres	2,778	121,000	50-80
R4	Shrub Seedling Planting	acres/ number	149/ 25,500	60,000	50-80
R5	Noxious Weeds	acres	2,778/ 2 yrs	6,000	60-90
R7	Fence Repair/Gate Repair Existing	miles	1.0	3,000	100
R15	Livestock Closure	acres	2,778	0	100
R16	Monitoring (funded under ES)	acres	2,778	0	100
TOTAL				190,000	

**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: The proposed treatments (e.g. seeding, and seedling planting) are related actions which maximize the probability of success and effectiveness of restoring ecosystem components and achieving BAR objectives.

**No Action:** Yes  No  Rationale: No action could result in the spread of cheatgrass and other invasive annuals, lack of shrub structure, and a lower functioning ecosystem.

**Alternative(s):** Yes  No  Rationale: Although acceptable alternatives may exist, none have been identified that would pose less risk to the natural resources than the proposed treatments.

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

**Proposed Action:** Yes  No  Rationale: The probability of the proposed treatments being successful are relatively high, and the costs is reasonable considering the benefits to be realized.

**No Action:** Yes  No  Rationale: There would be no costs associated with

no action, but no benefits would be realized.

**Alternative(s):** Yes [ ] No [X] Rationale: No alternatives have been identified that would be more cost effective than the proposed treatments.

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** [X], **Alternative(s)** [ ], or **No Action** [ ]

Comments: The proposed treatments are anticipated to be cost effective, and would restore vegetative components. Restoration would foster a more stable ecosystem in which native species are well represented. The cost/risk is reasonable considering the benefits to the long-term health of the ecosystem.

### 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

Monitoring funding will be covered under the Cold Emergency Stabilization Plan.

Monitoring protocols for vegetation treatments within this plan are based primarily on those described in the Monitoring Manual for Grassland, Shrubland, and Savanna Ecosystems by Jeffery E. Herrick, Justin W. Van Zee, Kris M. Havstad, Laura M Burkett, and Water G. Whitford; published in 2005 by USDA-ARS Jornada Experimental Range, New Mexico State University.

The proposed treatments would be actively monitored and documented by personnel of the Boise District; Division of Operations and Four Rivers Field Office. Effectiveness of the aerial seeding would be monitored by collecting density and cover data from randomly located plots which diagonally traverse flight patterns and drill rows within the treatment areas.

### 1. Aerial Seeding:

Monitoring the success of the aerial seeding would take place during the summers of 2008-2010. Treatment objectives would be achieved when density data collected from not less than one hundred (100) 0.125m<sup>2</sup> plots indicate mean establishment densities as follows:

Aerial Seed Mix 1 & 2	Western yarrow $\geq 1/m^2$
	Sandberg's bluegrass $\geq 5/m^2$
	Big sagebrush $\geq 1/9m^2$

### 2. Seedling Planting:

Monitoring the success of the shrub seedling planting would be conducted during the summers of 2008-2010. Treatment objectives would be achieved when data collected from at least one hundred (100) bitterbrush seedlings, randomly located within ten (10) identified planting sites show a survival rate of 40-50%.

### 3. Noxious Weeds:

Starting in 2008, BLM noxious weed specialists would inventory the 2,778 acres for noxious weeds and take appropriate treatment action under the ES. Species identified, treatment and GPS location would be recorded. Personnel would revisit the treated sites 2009-2010 to evaluate mortality and inventory for additional weed populations under this BAR.

### 4. Livestock Closure:

Livestock are to be excluded from the treated area until monitoring results, documented in writing; show rehabilitation objectives have been met. In case of treatment failure, other factors may need to be considered, such as natural recovery of untreated areas, and need or reason to continue closure. Routine site visits would be made by BLM personnel to monitor for livestock trespass and ensure effectiveness of area closure.

## PART 7 - MAP

### 1. Aerial Seeding, Seedling Planting & Fence Repair

## REVIEW, APPROVALS, AND PREPARERS

### REHABILITATION PLAN TEAM MEMBERS

Position	Team Member (Agency/Office)	Initial and Date
Team Leader Rangeland Mgt Spec	Mike Barnum (BLM/ID110)	
Operations ESR Coordinator	Cindy Fritz (BLM/ID102)	
Botanist	Mark Steiger (BLM/ID110)	
Cultural Resources/Archeologist	Dean Shaw (BLM/ID110)	
Natural Resource Specialist	Jack LaRocco (BLM/ID110)	

### REHABILITATION PLAN APPROVAL

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

/s/ Rosemary Thomas

9/6/2007

\_\_\_\_\_  
FIELD OFFICE MANAGER

\_\_\_\_\_  
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.

# Boise District 2007 Wildfire: Cold (DUY5) Aerial Seeding, Seedling Planting, & Fence Repair

