

**BLM IDAHO POST-FIRE RECOVERY PLAN
EMERGENCY STABILIZATION AND BURNED AREA REHABILITATION**

BEAVER CREEK FIRE

**BLM/TWIN FALLS DISTRICT/SHOSHONE FIELD OFFICE
IDAHO STATE OFFICE**

FIRE BACKGROUND INFORMATION

Fire Name	Beaver Creek
Fire Number	HT80
District/Field Office	Twin Falls/Shoshone
Admin Number	LLIDT03000
State	Idaho
County(s)	Camas/Blaine
Ignition Date/Cause	8-7-2013/Lightning
Date Contained	9-1-2013

Jurisdiction	Acres
BLM	8,063
State	1,295
US Forest Service	90,899
Private	11,240
Other	0

Total Acres	111,497
Total Costs	\$1,596,000
Costs to LF2200000	\$1,209,000
Costs to LF3200000	\$387,000

Status of Plan Submission (check one box below)

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

PART 1 - PLAN SUMMARY

BACKGROUND INFORMATION ON THE FIRE

The Beaver Creek fire was a reported lightning-caused ignition on August 7, 2013 in rangeland type fuels on Bureau of Land Management land. The fire was originally complexed with the McCan fire but it quickly became evident that the complex could not be effectively managed due to the complexity of the two fires. As the fire made a significant move on to National Forest System (NFS) lands, it was decided to turn the fire over to the Sawtooth National Forest. Weather conditions during the early stages of the fire, coupled with limited resources due to competition both geographically and nationally set the stage for large fire growth, with towering columns and large acreage growth. The fire grew from 4,786 acres on August 8th to over 16,900 acres on August 9th. Hot, dry weather conditions continued over the next week and a half pushing the fire to well over 100,000 acres, potentially threatening the communities of Hailey and Ketchum, Idaho. Approximately 8,000 residents were in pre-evacuation or evacuated for several days due to predicted rapid fire growth. One residence was lost. Following containment, a Forest Service Burned Area Emergency Response (BAER) team was convened to provide analysis and recommendations for rehabilitation treatments (See Beaver Creek BAER Report).

The highest percentage of burned area was on NFS lands within Camas and Blaine Counties (90,899 acres). The majority of the fire burned at a moderate burn severity with localized areas of high burn severity. The fire was declared contained on September 1st, 2013. The majority of NFS lands in the burned area (87%) are on the Ketchum Ranger District with the remaining percentage on the Fairfield Ranger District. Approximately 8,063 acres of Shoshone Field Office-BLM, 1,295 acres of State of Idaho land and 11,240 acres of private land were burned. The fire affected the Little Beaver, Cherry Creek, Wolfstone, Bullion Gulch, Rota Run, Deer Creek, and Timber Gulch BLM grazing allotments.

The fire burned in mid- to high-elevation mountain big, low sagebrush, riparian and forested plant communities. Fire intensities on BLM lands were a mix of high (508 acres), moderate (5,104 acres) and low (3,296 acres) intensity across the burn area. Fire intensity acres were derived from Burned Area Reflectance Classification (BARC) imagery and a refined BAER perimeter (See BARC map). The low intensity areas contained unburned islands of vegetation, primarily low sagebrush ecological sites. The moderate intensity areas were primarily in the mountain big sagebrush and mountain shrub plant communities in the Little Beaver, Cherry Creek and Democrat Gulch and Deer Creek allotments. The high intensity areas were in the forested and riparian plant communities. The high intensity acres were concentrated in Greenhorn Gulch on north-facing forested slopes above private land residences.

The mix of vegetation communities in the burn area provided for mule deer, primarily spring, summer and fall habitat. Elk inhabit the burn area year round which includes crucial elk winter ranges. The Little Beaver/Cherry Creek area is an Area of Critical Environmental Concern (ACEC) designated for crucial elk winter range. Approximately 5,834 BLM acres are within sage-grouse Preliminary General Habitat (PGH). The burn area is mapped primarily as sage grouse brood rearing habitat.

A large thunderstorm system on September 2 produced around ¾” of rainfall over much of the burned area within 1-1 ½ hours. Numerous debris/mud flows and flooding occurred in drainages, steep hill-slopes and stream floodplains across the fire area. This storm demonstrated the potential response of the burned area to intense rainfall. Subsequent storms occurred on September 3rd and 5th resulting in more debris flows and overland flooding. After these storms, large debris flows blocked road access into and out of most canyon areas in the burn perimeter. Impacts to a variety of values at risk, including roads, bridges, trails, homes and fish habitat, were impacted by flood, scour or deposition. While no injuries were reported, these storms and associated flooding and debris flows posed a serious threat to safety at many locations in and adjacent to the burned area.

Severe damages to private land residences and natural resources on BLM occurred as a result of the fire and large storm events.



Greenhorn Gulch Private Land Impacts

Threats to private property exist within and downstream from the burned area. Treatments are proposed in the Little Beaver/Cherry Creek ACEC, Deer Creek/Democrat Gulch and Greenhorn Gulch areas and will be focused on stabilization of slopes within the burn that are extremely vulnerable to accelerated erosion, invasive and noxious weed expansion, and increased potential for damage to private property. The Beaver Creek fire is high priority for Emergency Stabilization (ES) and Burned Area Rehabilitation (BAR) efforts.

LAND USE PLAN CONSISTENCY

The following treatments are proposed under this ES and BAR plan.

Emergency Stabilization

S5 Weed Control

S3 Aerial Seeding

S6 Soil Stabilization-Aerial Mulching and Timber Slash Treatment

S12 Livestock/OHV Closure

S13 Monitoring

Burned Area Rehabilitation

R5 Weed Control

R7 Fence, Gate, Cattleguard

R11 Facilities

The applicable land use plan for the ES/BAR project area is the 1981 Sun Valley Management Framework Plan (MFP). The proposed treatments in this plan conform to the 1981 Sun Valley MFP. Although not specifically provided for in the MFP, the overall goal in the Sun Valley MFP is to protect and enhance the resources of public lands in order to preserve their capability to contribute toward meeting the resource needs of the nation.

The treatments outlined in this plan are also consistent with the treatments analyzed in the Shoshone and Burley Field Office Normal Fire Rehabilitation Plan and Environmental Assessment #ID-077-2004-008.

The project is also in conformance with the analysis of Alternative E, the selected alternative, in the 2008 Final Fire, Fuels and Related Vegetation Management Direction Plan Amendment (FMDA) and Environmental Impact Statement (EIS). The Final FMDA/EIS amends all Land Use Plans for the Shoshone Field Office except the Craters of the Moon National Monument Management Plan, to provide direction and guidance for fire/fuels and related vegetation management.

The ESR 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.

COST SUMMARY TABLES

Emergency Stabilization (LF2200000):

Action/Spec. #	Planned Action	Unit (acres, WMs, number)	# Units	Unit Cost (If Applicable)	FY14	FY15	FY16	Totals by Spec.
S1	Planning (Project Mgmt.)		2		\$25,000	\$25,000	\$25,000	\$75,000
S3	Aerial Seeding	Acres	3,505	\$90.44	\$317,000	\$0	\$0	\$317,000
S5	Noxious Weeds	Acres	8,063	\$3.22	\$26,000	\$0	\$0	\$26,000
S6	Soil Stabilization (Aerial Mulching)	Acres	572	\$898.60	\$514,000	\$0	\$0	\$514,000
S6	Soil Stabilization (Slash Cutting)	Acres	572	\$374.13	\$214,000	\$0	\$0	\$214,000
S12	Closures (Livestock)	No.	1	\$0.00	\$0	\$0	\$0	\$0
S12	Closure-OHV	No.	1	\$0	\$22,000	\$14,000	\$0	\$36,000
S13	Monitoring	Acres	8,063	\$	\$9,000	\$9,000	\$9,000	\$27,000
TOTAL COSTS (LF2200000)					\$1,127,000	\$48,000	\$34,000	\$1,209,000

Burned Area Rehabilitation (LF3200000):

Action/Spec. #	Planned Action	Unit (acres, WMs, number)	# Units	Unit Cost (If Applicable)	FY14	FY15	FY16	Totals by Spec.
R1	Planning (Project Mgmt.)	WM's	1		\$3,000	\$3,000	\$3,000	\$9,000
R5	Noxious Weeds	Acres	8,063	\$3.22	\$0	\$26,000	\$26,000	\$52,000
R7	Fence Repair	Miles	2	\$10,500	\$21,000	\$0	\$0	\$21,000
R11	Facilities (Trails)	Miles	11	\$22,727	\$222,000	\$17,000	\$11,000	\$250,000
R11	Facilities (Road Repair)		1.0	\$1.0	\$55,000	\$0	\$0	\$55,000
TOTAL COSTS (LF3200000)					\$301,000	\$46,000	\$40,000	\$387,000

PART 2 – POST-FIRE RECOVERY ISSUES AND TREATMENTS

Issues relate to resource problems caused by the wildfire and include both the immediate wildfire effects as well as effects predicted to occur as a result of the wildfire. Determining the appropriate funding code must be based on the scope of the issue, purpose of the treatment, and the availability of funds.

EMERGENCY STABILIZATION ISSUES AND TREATMENTS

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

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

ES Issue 1-Human Life and Safety

Not applicable.

ES Issue 2-Soil/Water Stabilization

Vegetation

The following is a listing of common pre-burn vegetation in order of dominance. The list was developed using field surveys of unburned islands of vegetation and range management Standards and Guides assessment data. This list is for vegetation determined to be in the burn area.

Greenhorn Gulch:

Douglas fir/Mountain snowberry 22-32”

The potential natural plant community for this site is a Douglas fir forest community and a shrub/grass understory.

Common Pre-burn Vegetation in Order of Dominance:

Douglas fir, *Pseudotsuga menziesii*

Quaking Aspen, *Populus tremuloides*

Mountain snowberry, *Symphoricarpos oreophilus*

Mountain big sagebrush, *Artemisia tridentata* ssp. *vaseyana*

Elk sedge, *Carex geyeri*

Bluebunch wheatgrass, *Pseudoroegneria spicata*

Oregon grape, *Berberis repens*

Noxious Weeds in the burn area:

Dalmatian Toadflax, *Linaria dalmatica*
Leafy Spurge, *euphorbia esula*
Spotted Knapweed, *Centaurea maculosa*
Diffuse Knapweed, *Centaurea diffusa*
Rush skeletonweed, *Chondrilla juncea*
Canada thistle, *Cirsium arvense*

Soils

The dominant soils are derived primarily from the Sawtooth batholith and Wood River sedimentary formations. Soils that have developed from the extruded Batholith are weathered and fractured with sandy loam textures. These are well-drained, non-cohesive soils generally exhibiting little horizon development, moderate to low fertility, and inherent moderate to high erosion hazard. Cool, moist, moderately deep sandy loam soils occupy north and east aspects and support forest vegetation. Batholith soils on south-facing slopes are typically, single-grain, coarse sandy soils that are mostly dry and sparsely vegetated.

The surface soils of forested settings over the sandstone soils are more developed sandy loam or loamy soils with high rock content and are moderately erodible. Soils on north facing slopes are mostly skeletal having high quantities of larger gravel/small cobble rock on the surface and through the soil profile. Soils on south facing slopes have similar amounts of rock which are more gravel-sized. Soils within the valley bottoms have developed over the Quaternary Glacial Alluvial Deposits consist of more developed sandy loam or loamy soils with high coarse rock contents. Most all the soils have moderate to high infiltration and permeability rates. The primary factor limiting vegetation production is the lack of moisture available during the growing season.

Greenhorn Gulch

The majority of acres burned in the Greenhorn Gulch area were of moderate and high intensity. The high intensity acres were on the north-facing forested slopes dominated by Douglas fir and aspen plant communities



Greenhorn Gulch Burn Intensity

Total loss of vegetation cover occurred as a result and exposed soils to accelerated wind and water erosion. Intense storm rain events that started on September 2nd have negatively impacted soil and vegetation resources and placed private residences located down gradient in an inherently hazardous position due to a reduction in slope stability.



Greenhorn Gulch Private Land Erosion Impact

This area is high priority for soil stabilization treatments to help reduce the possibility of future impacts from further soil and slope movement toward private residences located down slope.

Treatment/Activity: S6 Soil Stabilization (Greenhorn Gulch-Aerial Straw Mulch)

A. *Treatment Activity Description.* Approximately 572 acres on the north-facing slopes timbered slopes in Greenhorn Gulch would be treated with an agricultural straw mulch to provide litter on the soil surface (See Greenhorn Treatment Map). Agricultural straw mulch will be applied to the ground surface by helicopter (and spread with hand crews as necessary) to achieve cover of uniform thickness (See design specifications below).

Design Specifications

Straw application rate achieves a cover of uniform thickness over 70% of treatment area at a depth of less than 2.0 inches. Application rate will be approximately 1.0 ton/acre (2,000 pounds). This is about 0.25 inches or 3 straw shafts deep. Aerial application may not achieve desired ground cover, therefore ground crews will likely be needed to spread straw clumps by hand in select locations in each treatment unit.

Straw must conform to Idaho or State Department of Agriculture (ISDA), Certified Noxious Weed Free Standards for Noxious Weed Free Forage and Straw (NWFFS). All straw provided will be grown in Idaho, have been planted, and harvested during the 2013 growing season. Straw shaft length will not exceed 12 inches. Only wheat straw is suitable. Additional certification for cheatgrass (*Bromus tectorum*) will also be required.

The straw must be applied dry (less than 12 percent internal moisture content) or “conditioned” prior to loading nets to ensure proper dispersal during aerial applications. GPS coordinates will be used to identify the aerial seeding treatment units.

- B. *How does the treatment relate to damage or changes caused by the fire?* Straw mulch replaces the ground cover consumed by the fire and protects the soil from erosion and loss of nutrients. Ground cover is needed to accelerate recovery of native vegetation and to minimize the potential for spread of noxious weeds and invasive plant species in susceptible burned areas. Straw mulch helps secure seeds that are stored in the soil, or applied as an emergency treatment by maintaining a favorable moisture and temperature regime for seed germination and growth. The mulch treatments decrease the estimated soil erosion and subsequent sediment delivery to the streams and reduce downstream peak flows by absorbing rainfall and allows pre-wetting of water repellent soil.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* High potential exists for impacts to private property on down slope private lands. The aerial mulching treatment will provide important ground cover to mitigate potential accelerated soil erosion and associated impacts to down slope private land.

Treatment/Activity: S6 Soil Stabilization (Greenhorn Gulch-Slash Treatment)

- A. *Treatment Activity Description.* An 8-10 person crew will be utilized to cruise the north-facing slopes in Greenhorn Gulch. Utilizing chain saws the crews will cut any limbs remaining on Douglas-fir and aspen trees and spread the slash across the slopes.
- B. *How does the treatment relate to damage or changes caused by the fire?* The timber slash treatment replaces ground cover consumed by the fire and protects the soil from erosion and loss of nutrients. Ground cover is needed to accelerate recovery of native vegetation and to mitigate the potential for spread of noxious weeds and invasive plant species in susceptible burned areas. The slash treatments decrease the estimated soil erosion and subsequent sediment delivery to the streams and reduce downstream peak flows by absorbing rainfall and allows pre-wetting of water repellent soil.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* High potential exists for negative impacts to private property on down slope private lands. The slash treatment will provide important ground cover to mitigate potential accelerated soil erosion and associated impacts to down slope private land. The treatment also utilizes an on-site source of ground cover material.

Livestock Closure

The Beaver Creek fire completely removed vegetation cover and negatively impacted forage resources. The burn area would be rested from livestock grazing until monitoring shows that rehabilitation and vegetation recovery objectives have been met. This rest would provide the opportunity for existing vegetation resources to stabilize the burn area and seeding efforts to establish. The burn area primarily affected the Little Beaver, Cherry Creek, Wolfstone, Bullion Gulch, Rota Run, Deer Creek and Timber Gulch grazing allotments.

Treatment/Activity: S12 Livestock Closure

- A. *Treatment Activity Description.* The Beaver Creek burn area and associated allotments would be rested from livestock grazing until monitoring shows that ES/BAR rehabilitation objectives have been met.
- B. *How does the treatment relate to damage or changes caused by the fire?* The objective of this treatment is to rest the burn area from livestock grazing to provide the opportunity for existing vegetation resources to stabilize the burn area. Recovery of the existing native perennial plant community would inhibit the expansion of annual vegetation and stabilize soil resources.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* No costs under ES are associated with the livestock closures.

Recreation Activity

Recreational activity in the Wood River Valley area of the Beaver Creek fire is high year round. The Croy Creek Trail system is within 3 miles of Hailey, Idaho and visitor count data collected in 2012 indicates there is approximately 15,000 user days/year with most of them being local Wood River Valley residents. Due to the fire these visitors will be displaced to other trails in the Wood River Valley. The closest designated trail system is 15 - 20 miles away at the Bald Mountain ski area and north of Ketchum. An all human entry closure is being proposed because of the amount of visitation that takes place on the trail systems throughout this portion of the burned area. The anticipated high levels of recreation activity would have negative impacts to proposed seeding efforts and soil stabilization within the burn area, especially during the first year.

Treatment/Activity: S12 Recreation Closure

- A. *Treatment/Activity Description.* The proposed treatment is to close portions of the burn (See Beaver Creek Closure Map) area year round to all human entry October 1, 2013 – June 30, 2015. This will be accomplished by a Press Release/Federal Register Notice/Emergency Closure, signage, gate closures, and BLM law enforcement patrols (with assistance from Blaine County Sheriff's Department) to notify the public of the closure. Signage would be along public roads and trails leading into and across the burned area. Increased patrols would occur during peak use periods, May, June, September and October with regular patrols

occurring throughout the rest of the year to monitor and enforce the closure. The closure would remain in effect until monitoring shows that ES/BAR rehabilitation objectives have been met. The closure would be instituted under 43 CFR, Section 8364.1.

- B. *How does the treatment relate to damage or changes caused by the fire?* The purpose of this treatment is to close the burn area to human entry to provide the opportunity for existing vegetation resources to stabilize the burn area and seeding efforts to establish. Trails within the area were heavily used prior to the fire. With the loss of shrub cover this opens up the area to increased overland travel. It is expected that increased overland travel would occur during the historical high use seasons, spring and fall. Soil in the burn area is extremely vulnerable to damage in the spring when they are saturated with moisture. Heavy recreation use would damage any recovering existing vegetation, harm the establishment of seeded species, promote the spread of noxious weeds, and disturb wildlife. Eliminating use would help promote the recovery and establishment of a perennial plant community which would inhibit the expansion of annual vegetation and stabilize soil resources.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* Daily patrols would be necessary to enforce the closure. Utilizing the existing BLM and Blaine County law enforcement agreement and associated personnel for additional patrol efforts is cost efficient. An emergency closure would assist in vegetation recovery and enforcement would be the responsibility of the agencies. The damage to vegetation resources, investment loss due to overland travel, the unauthorized creation of new trail routes in the area, and disturbance to wildlife greatly outweighs the cost of the closure.

ES Issue 3 - Habitat for Federal/State Listed, Proposed, or Candidate Species.

See BAR Issue 2/Weed Treatments/Wildlife Habitat discussion.

ES Issue 4 - Critical Heritage Resources.

Not Applicable.

ES Issue 5 - Invasive Plants and Weeds.

Vegetation

The following is a listing of common pre-burn vegetation in order of dominance. The list was developed using field surveys of unburned islands of vegetation and range management Standards and Guides assessment data. This list is for vegetation determined to be in the burn area.

Little Beaver/Cherry Creek ACEC:

South Slope Stony 12-16" Mountain big sagebrush/Bluebunch wheatgrass

The potential natural plant community for this site is mountain big sagebrush and bluebunch wheatgrass.

Common Pre-burn Vegetation in Order of Dominance:

Cheatgrass, *Bromus tectorum*

Bluebunch wheatgrass, *Pseudoroegneria spicata*

Mountain big sagebrush, *Artemisia tridentata* ssp. *vaseyana*

Bitterbrush, *Purshia tridentata*

Mountain snowberry, *Symphoricarpos oreophilus*

North Slope Loamy 16-20" Mountain big sagebrush/Idaho fescue

The potential natural plant community for this site is mountain big sagebrush, Idaho fescue, and bluebunch wheatgrass.

Common Pre-burn Vegetation in Order of Dominance:

Mountain big sagebrush, *Artemisia tridentata* ssp. *vaseyana*

Bluebunch wheatgrass, *Pseudoroegneria spicata*

Mountain snowberry, *Symphoricarpos oreophilus*

Cheatgrass, *Bromus tectorum*

Bitterbrush, *Purshia tridentata*

Idaho fescue, *Festuca idahoensis*

Deer Creek Allotment/Democrat Gulch:

Fractured South Slope 12-16" Mountain big sagebrush/Bluebunch wheatgrass

The potential natural plant community for this site is mountain big sagebrush and bluebunch wheatgrass.

Common Pre-burn Vegetation in Order of Dominance:

Cheatgrass, *Bromus tectorum*

Bluebunch wheatgrass, *Pseudoroegneria spicata*

Bitterbrush, *Purshia tridentata*

Mountain big sagebrush, *Artemisia tridentata* ssp. *vaseyana*

North Slope Loamy 16-20" Mountain big sagebrush/Idaho fescue

The potential natural plant community for this site is mountain big sagebrush, Idaho fescue, and bluebunch wheatgrass.

Common Pre-burn Vegetation in Order of Dominance:

Mountain big sagebrush, *Artemisia tridentata* ssp. *vaseyana*

Bluebunch wheatgrass, *Pseudoroegneria spicata*

Idaho fescue, *Festuca idahoensis*

Lupine, *Lupinus* spp.

Rabbitbrush, *Chrysothamnus nauseosus*

North Slope Loamy 18-24" Mountain big sagebrush/Mountain snowberry/Idaho fescue

The potential natural plant community for this site is mountain big sagebrush, mountain snowberry, and Idaho fescue.

Common Pre-burn Vegetation in Order of Dominance:
Bluebunch wheatgrass, *Pseudoroegneria spicata*
Mountain big sagebrush, *Artemisia tridentata* ssp. *vaseyana*
Pale agoseris, *Agoseris glauca*
Lupine, *Lupinus* spp.
Oniongrass, *Melica bulbosa*

Noxious Weeds in the burn area:

Dalmatian Toadflax, *Linaria dalmatica*
Leafy Spurge, *euphorbia esula*
Spotted Knapweed, *Centaurea maculosa*
Diffuse Knapweed, *Centaurea diffusa*
Rush skeletonweed, *Chondrilla juncea*
Canada thistle, *Cirsium arvense*

Little Beaver/Cherry Creek ACEC

The majority of acres burned in the Little Beaver/Cherry Creek ACEC were of moderate intensity. Total loss of vegetation cover occurred as a result of the fire and exposed soils to accelerated wind and water erosion. Intense storm rain events that started on September 2nd have negatively impacted soil and vegetation resources.



Little Beaver ACEC Accelerated Erosion Impacts

Loss of soil productivity and crucial seed bank resources has occurred impacting crucial vegetation resources for elk winter range and exposing the area to invasion from annual vegetation and noxious weeds. The south-facing slopes in the ACEC are high priority for soil stabilization and re-establishment of important seed banks. Habitat conditions are not expected to recover naturally without a soil stabilization and aerial seeding effort.

Deer Creek and Democrat Gulch

The majority of acres burned on public land in the Deer Creek/Democrat Gulch area were of moderate intensity. A small area in the Jimmy Creek drainage experienced a high intensity burn. Total loss of vegetation cover occurred as a result and exposed soils to accelerated wind and water erosion. Intense storm rain events that started on September 2nd have negatively impacted soil and vegetation resources.



Democrat Gulch Accelerated Erosion Impacts

Loss of soil productivity and crucial seed bank resources has occurred exposing this area to accelerated erosion and site degradation. This area is high priority for soil stabilization and re-establishment of important seed banks to provide competition against an expected increase of annual vegetation and noxious weeds. Habitat conditions are not expected to recover naturally without a soil stabilization and aerial seeding effort.

Fire Intensity and Vegetation

The moderate and high fire intensity areas were primarily in the forested and mountain big sagebrush sites. The high intensity burn areas removed most of the plant cover and have exposed soils to accelerated soil erosion, invasive plant and noxious weed invasion. These areas are a major concern due to wind and water erosion and the expansion of invasive plants and noxious weeds. The low intensity fire areas were primarily in low sagebrush sites that contained numerous unburned islands.

Wildlife Habitat

The Beaver Creek burn negatively affected 5,834 BLM acres of sage grouse PGH. The burn also negatively affected habitat for mule deer and elk. Proposed noxious weed control efforts will be

a focus due to the moderate to high fire intensities and associated negative impacts. Due to the wildfire impacts, current conditions are not optimum for sage grouse or big game habitat. Control of noxious weeds will be critical to the natural recovery of habitat conditions.

Noxious Weeds

Dalmatian toadflax, diffuse knapweed, spotted knapweed, leafy spurge, Canada thistle and rush skeletonweed are the primary noxious weeds of concern with high potential to increase within the burned area and surrounding rangeland. These weeds were documented during the fire reconnaissance surveys.

The current state of the infestation is treatable if done within the next three growing seasons. Without a noxious weed control effort noxious weeds will significantly increase negatively affecting sage grouse and big game habitat and livestock forage capabilities. If an emergency treatment is not implemented the economic impact to natural resources and the local economy will be significant. The costs to suppress noxious weeds after a significant expansion has occurred increases exponentially. Spot herbicide spraying and biological control would be proposed under rehabilitation to suppress the expansion of these weeds.

Treatment/Activity: S3 Aerial Seeding (Little Beaver and Cherry Creek)

A. *Treatment Activity Description.* Approximately 1,370 acres on the south-facing slopes in Little Beaver Creek/Cherry Creek ACEC would be aerially seeded in the fall with the following grass and forb seed mix (See Little Beaver Treatment map).

Grass and Forb Aerial Seed Mix	
1,370 Acres	
Species and Variety	Seed Rate Lbs/Acre
Grasses	
1. ‘Anatone’ Bluebunch Wheatgrass	2.00
2. ‘Discovery’ Snake River Wheatgrass	2.00
3. ‘Alkar’ Tall Wheatgrass	0.75
4. ‘Trailhead’ Basin Wildrye	0.75
5. ‘Sherman’ Big Bluegrass	1.00
Forbs	
1. ‘Eagle’ Western Yarrow	0.10
2. ‘Delar’ Small Burnett	0.50
3. ‘Maple Grove’ Lewis Flax	0.30

- B. *How does the treatment relate to damage or changes caused by the fire?* The fire and subsequent storm events have negatively impacted soil stability and seed bank resources. The proposed aerial seeding will provide input to the seed bank, provide competition for an expected increase in annual vegetation and noxious weeds, and provide short to long term stability to soils (USDA Forest Service, 2004). The assemblage of perennial species utilized in the seed mix will provide stability to the soils by occupying various aspects of the soil profile. After the first growing season, this treatment will provide varying degrees of root systems and vegetative ground cover to stabilize slopes. By providing the stability necessary to hold soils on site during the first two years, hydrologic function is also protected. The accelerated rate of re-vegetation with native species will aid in the recovery of the native seed bank help return soil stability and site productivity to pre-disturbance levels.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* Prior to the fire the proposed aerial seed treatment area contained a native sagebrush plant community with a component of annual vegetation and noxious weeds. The proposed aerial seed treatment area is at high risk for degradation by noxious weeds and invasive plants if left untreated. Without establishment of a desirable perennial dominated plant community it is expected that annual vegetation would dominate the plant community and negatively affect soil stabilization and wildlife habitat in the long term. Fire frequency would also increase with annual vegetation dominance thus reducing plant community structure and diversity. The proposed treatment is consistent with current policy for fuels management and sage-grouse habitat management. In addition, the species selected are adapted to mid elevation (10-12" ppt.) zones (USDI 2008). The aerial seeding costs can vary year to year (approximately \$50-100/acre) but are typical for projects of this type.

Treatment/Activity: S3 Aerial Seeding Stabilization (Democrat Gulch-Aerial Seed)

- A. *Treatment Activity Description.* Approximately 2,135 acres in the Deer Creek/Democrat Gulch area would be aerially seeded with the following grass and forb seed mix (See Democrat Gulch Treatment Map).

Grass and Forb Aerial Seed Mix	
2,135 Acres	
Species and Variety	Seed Rate Lbs/Acre
Grasses	
1. 'Anatone' Bluebunch Wheatgrass	2.00
2. 'Discovery' Snake River Wheatgrass	2.00
3. 'Alkar' Tall Wheatgrass	0.75
4. 'Trailhead' Basin Wildrye	0.75
5. 'Sherman' Big Bluegrass	1.00
Forbs	
1. 'Eagle' Western Yarrow	0.10

Grass and Forb Aerial Seed Mix	
2,135 Acres	
Species and Variety	Seed Rate Lbs/Acre
2. 'Delar' Small Burnett	0.50
3. 'Maple Grove' Lewis Flax	0.30

- B. *How does the treatment relate to damage or changes caused by the fire?* The fire and subsequent storm events have negatively impacted soil stability and seed bank resources. The proposed aerial seeding will provide input to the seed bank, provide competition for an expected increase in annual vegetation and noxious weeds, and provide short to long term stability to soils (USDA Forest Service, 2004). The assemblage of perennial species utilized in the seed mix will provide stability to the soils by occupying various aspects of the soil profile. After the first growing season, this treatment will provide varying degrees of root systems and vegetative ground cover to stabilize slopes. By providing the stability necessary to hold soils on site during the first two years, hydrologic function is also protected. The accelerated rate of re-vegetation with native species will aid in the recovery of the native seed bank help return soil stability and site productivity to pre-disturbance levels.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* Prior to the fire the proposed aerial seed treatment area contained a native sagebrush plant community with a component of annual vegetation and noxious weeds. The proposed aerial seed treatment area is at high risk for degradation by noxious weeds and invasive plants if left untreated. Without establishment of a desirable perennial dominated plant community it is expected that annual vegetation would dominate the plant community and negatively affect soil stabilization and wildlife habitat in the long term. Fire frequency would also increase with annual vegetation dominance thus reducing plant community structure and diversity. The proposed treatment is consistent with current policy for fuels management and sage-grouse habitat management. In addition, the species selected are adapted to mid elevation (10-12" ppt.) zones (USDI 2008). The aerial seeding costs can vary year to year (approximately \$50-100/acre) but are typical for projects of this type.

Treatment Activity: S5 Noxious Weeds

- A. *Treatment/Activity Description.* Noxious weed inventory and control within the burned area would be done for three years after the fire to directly treat the expected weeds. All actions would be in accordance with the Shoshone District Noxious Weed Management Plan, Environmental Assessment #ID050-EA-92031. Dalmatian toadflax, diffuse knapweed, spotted knapweed, leafy spurge, Canada thistle and rush skeletonweed are the primary noxious weeds targeted.

In addition to the noxious weed control efforts, fall hand planting of mountain big sagebrush and bitterbrush would be implemented with non-ESR funding.

- B. *How does the treatment relate to damage or changes caused by the fire?* The objective of

this treatment is to identify and control the expected noxious weed increase using spot herbicide application on the burned area. In addition, biological control agents for knapweed would be utilized in areas not easily accessible to ground spraying equipment (rocky outcrops and steep slopes). Noxious weed infestations are present in the burn area and are expected to increase due to the removal of existing plant cover by the wildfire. Noxious weed control would be conducted the second and third years under BAR.

- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* Weed treatments in this Field Office typically run about \$3.21 per acre. Field work would be combined with other weed treatments in the area for cost efficiency. The proposed treatment is consistent with current policy for fuels management and sage-grouse habitat management.

BURNED AREA REHABILITATION ISSUES AND TREATMENTS

Burned Area Rehabilitation 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

Burned Area Rehabilitation 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

BAR Issue 1 - Lands Unlikely to Recover Naturally.

Not Applicable.

BAR Issue 2 - Weed Treatments.

See Vegetation, Soils, and Noxious Weed discussion under ES Issue 2-Soil Stabilization.

Fire Intensity and Vegetation

The moderate and high fire intensity areas were primarily in the forested and mountain big sagebrush sites. The high intensity burn areas removed most of the plant cover and have exposed soils to accelerated soil erosion and noxious weed invasion. These areas are a major concern due to wind and water erosion and the expansion of noxious weeds. The low intensity fire areas were primarily in low sagebrush sites that contained numerous unburned islands.

Wildlife Habitat

The Beaver Creek burn negatively affected 5,834 BLM acres of sage grouse PGH. The burn also negatively affected habitat for mule deer and elk. Proposed noxious weed control efforts will be

a focus due to the moderate to high fire intensities and associated negative impacts. Due to the wildfire impacts, current conditions are not optimum for sage grouse or big game habitat. Control of noxious weeds will be critical to the natural recovery of habitat conditions.

Noxious Weeds

Dalmatian toadflax, diffuse knapweed, spotted knapweed, leafy spurge, Canada thistle and rush skeletonweed are the primary noxious weeds of concern with high potential to increase within the burned area and surrounding rangeland. These weeds were documented during the fire reconnaissance surveys.

The current state of the infestation is treatable if done within the next three growing seasons. Without a noxious weed control effort noxious weeds will significantly increase negatively affecting sage grouse and big game habitat and livestock forage capabilities. If an emergency treatment is not implemented the economic impact to natural resources and the local economy will be significant. The costs to suppress noxious weeds after a significant expansion has occurred increases exponentially. Spot herbicide spraying and biological control would be proposed under rehabilitation to suppress the expansion of these weeds.

Treatment Activity: R5 Noxious Weeds

- A. *Treatment/Activity Description.* Noxious weed inventory and control within the burned area would be done for three years after the fire to directly treat the expected weeds. All actions would be in accordance with the Shoshone District Noxious Weed Management Plan, Environmental Assessment #ID050-EA-92031. Dalmatian toadflax, diffuse knapweed, spotted knapweed, leafy spurge, Canada thistle and rush skeletonweed are the primary noxious weeds targeted.
- B. *How does the treatment relate to damage or changes caused by the fire?* The objective of this treatment is to identify and control the expected noxious weed increase using spot herbicide application on the burned area. In addition, biological control agents for knapweed would be utilized in areas not easily accessible to ground spraying equipment (rocky outcrops and steep slopes). Noxious weed infestations are present in the burn area and are expected to increase due to the removal of existing plant cover by the wildfire. Noxious weed control would be conducted the second and third years under BAR.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* Weed treatments in this Field Office typically run about \$3.21 per acre. Field work would be combined with other weed treatments in the area for cost efficiency. The proposed treatment is consistent with current policy for fuels management and sage-grouse habitat management.

BAR Issue 3 - Tree Planting.

Not applicable.

BAR Issue 4 - Repair/Replace Fire Damage to Minor Facilities.

Livestock Management Fences

Approximately 2.0 miles of BLM pasture fences was damaged or destroyed by the fire. Primary damage occurred in the Cherry Creek allotment. Damaged wire, corners and braces would be repaired or replaced. The repairs would be needed to maintain the integrity of the grazing systems and keep adjacent livestock grazing from entering the burn area during the rest period.

Treatment Activity: R7 Fence/Gate/Cattleguard

- A. *Treatment/Activity Description.* The objective of this treatment is to repair or replace approximately 2.0 miles of BLM livestock management fence damaged by the fire. Damaged wood corners and braces would be replaced with galvanized steel posts. Damaged wire would also be repaired. Fence design criteria would incorporate fence height and wire spacing distances recommended for fences in areas containing big game.
- B. *How does the treatment relate to damage or changes caused by the fire?* The wildfire damaged fences associated with the livestock management of the affected allotments. Reconstruction and repair of management fences damaged by the fire would maintain the future integrity of the existing livestock grazing system. Repair of damaged management fences would also help to promote establishment and/or recovery of native and seeded vegetation.
- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* Fence repair contracts typically run \$5,000 per mile. This cost is typically lower than construction of new fence. Damaged wood stretch points and corners would be replaced with galvanized steel pipe thus increasing the longevity of the structures and would be resistant to future wildfire damages.

Recreational Trails

The scope of this issue includes: Repair or reconstruct non-motorized hiking and mountain bicycling trails damaged by wildfire and immediate post fire rain events (See Democrat Gulch Area Rehabilitation Treatment Map).

The Croy Creek Trail system was constructed in 2008, 2010 and 2011. Visitor count data collected in 2012 indicates there is approximately 15,000 user days/year with most of them being local Wood River Valley residents. The trails were designed and constructed using sustainable techniques, contouring hillsides at an average grade of less than 10% and never exceeding 15%. Most of the trails are considered typical "cross-country" style trails however two of the trails, Punchline and Centerline, were constructed as mountain bicycling "flow" trails. Flow trails incorporate bermed turns and jumps. Each jump has a durable, safe, and confidence-inspiring landing, and each raised feature is placed in a location that "flows" with the trail leading into it. Features incorporate natural features and native soil.

- Punchline, 1.2 miles

- Centerline, 1.1 miles
- Bull Dog, 2.1 miles
- Lambs Gulch, 2.2 miles
- Nadya's, 0.1 mile
- Two-Dog, 3.5 miles
- Wilson Gulch, 0.8 miles

Treatment Activity: R11 Facilities-Recreation Trails

- A. *Treatment/Activity Description.* The objective is to reconstruct and reestablish the trail system impacted by the Beaver Creek fire within two years. Reconstruction consists of using trail construction equipment and hand labor to establish a full bench trail with an out-sloped trail tread, back slope, in-sloped corners, grade reversals along with rebuilding bridges, installing a culvert and directional signs. The flow trails (Punchline and Centerline) also need rebuilding and shaping of the berms and jumps.
- B. *How does the treatment relate to damage or changes caused by the fire?* The fire and immediate post fire rain events resulted in mud and debris sheet flowing across the trails. The trails are now filled in with mud and in many locations essentially re-contouring much of them to the existing hillside (See Trail Damage photo). Four bridges and carsonite signs were also burned and one culvert was plugged that all need replacing. Reconstructing the trails will once again provide trail based recreation opportunities to residents and visitors of the Wood River Valley.



Trail Damage

C. *Why is the treatment/activity reasonable, within policy, and cost effective?* The Twin Falls District does not have a trail crew or specialized trail construction equipment necessary to reconstruct the trails. It will be imperative, through an assistance agreement or contract, to have the trail work be accomplished by an experienced and professional trail construction company.

Little Beaver Road Damage

The BLM Little Beaver road provides public access to the Little Beaver drainage and the Princess Blue Ribbon mine. The road lies at the bottom of the Little Beaver drainage. The Beaver Creek fire burned the southern facing slopes directly north of the road. Debris flows during the intense storm events in early September damaged approximately 1.4 miles of the Little Beaver Creek road. The road was made impassable and presents a significant hazard to the public. The road is currently closed under an emergency closure (See Little Beaver Area Rehabilitation Map).



Debris Flow over Little Beaver Road

Treatment Activity: R11 Facilities-Road Repair

- A. *Treatment/Activity Description.* The debris flows currently covering the road would be removed and material hauled to an approved site on BLM land, either at the Princess Blue Ribbon Mine location or in the Willow Creek drainage. The existing road template must be reshaped in damaged areas, approximately 1.4 miles. Several culverts were buried in the debris and must be removed and replaced. The drainages leading to the road culverts must be cleaned to define a new pathway for water to flow without damaging the roadway.
- B. *How does the treatment relate to damage or changes caused by the fire?* The Little Beaver road is currently impassable due to the large debris flows across the road and presents a significant hazard to the public. The road provides public access to the Little Beaver drainage and the Princess Blue Ribbon Mine area. The road is closed under an emergency action to the

public until the area is stabilized and road repairs can be made.

- C. *Why is the treatment/activity reasonable, within policy, and cost effective?* The road in its current condition is a safety hazard for the public. Force account crews would be utilized to implement the repairs. This activity would be conducted along with other BLM road maintenance needs in the area.

PART 3 – DETAILED TREATMENT COST TABLES

Beaver Creek-HT80-Emergency Stabilization		Units	FY14	FY15	FY16	Total Costs
S1	<i>Planning (Plan Prep/Project Mgmt.)</i>					
	National Office ESR Support	WM's	5,000	5,000	5,000	15,000
	Project Management Field Office	WM's	10,000	10,000	10,000	30,000
	Project Management State Office	WM's	10,000	10,000	10,000	30,000
	Total		25,000	25,000	25,000	75,000
S3	<i>Aerial Seeding</i>					
	Seed	Total	304,100	0	0	304,100
	Seed Mixing	WM's	4,400	0	0	4,400
	RSW .25 per pound surcharge	Total	6,500	0	0	6,500
	Seed Mobilization	Total	2,000	0	0	2,000
	Total		317,000	0	0	317,000
S6	<i>Soil Stabilization (Aerial Mulching)</i>					
	Labor	Total	14,000	0	0	14,000
	Travel/Vehicles	WM's	3,000	0	0	3,000
	Equipment Rental	Total	7,000	0	0	7,000
	Supplies/Materials	Total	186,000	0	0	186,000
	Contract	Total	300,000	0	0	300,000
	Contract Administration	WM's	4,000	0	0	4,000
	Total		514,000	0	0	514,000
S6	<i>Soil Stabilization-Slash Treatment</i>					
	Labor	WM's	148,000	0	0	148,000
	Travel/Vehicles	Total	13,000	0	0	13,000
	Supplies/Materials	Total	13,000	0	0	13,000
	Project Administration	WM's	40,000	0	0	40,000
	Total		214,000	0	0	214,000
S5	<i>Noxious Weeds</i>					
	Labor	Acres	5,000	0	0	5,000
	Travel/Vehicles	Total	1,000	0	0	1,000
	Supplies/Materials	Total	3,000	0	0	3,000
	Contract	Total	15,000	0	0	15,000
	Contract Administration	WM's	2,000	0	0	2,000
	Total		26,000	0	0	26,000
S12	<i>Closure-Recreation</i>					
	Labor	WM's	20,000	12,000	0	32,000
	Travel/Vehicles	Total	1,000	1,000	0	2,000
	Supplies/Materials	Total	1,000	1,000	0	2,000
	Total		22,000	14,000	0	36,000
S13	<i>Monitoring</i>					
	Labor	WM's	7,000	7,000	7,000	21,000
	Travel/Vehicles	Total	1,000	1,000	1,000	3,000
	Supplies/Materials	Total	1,000	1,000	1,000	3,000
	Total		9,000	9,000	9,000	27,000
	EMERGENCY STABILIZATION TOTALS		\$1,127,000	\$48,000	\$34,000	\$1,209,000

Beaver Creek-HT80-Burned Area Rehabilitation		Units	FY14	FY15	FY16	Total Costs
R1	<i>Planning (Plan Prep/Project Mgmt.)</i>					
	Project Management Field Office	WM's	3,000	3,000	3,000	9,000
	Total		3,000	3,000	3,000	9,000
R5	<i>Noxious Weeds</i>					
	Labor	WM's	0	5,000	5,000	15,000
	Travel/Vehicles	Total	0	1,000	1,000	3,000
	Supplies/Materials	Total	0	3,000	3,000	9,000
	Contract	Total	0	15,000	15,000	45,000
	Contract Administration	WM's	0	2,000	2,000	6,000
	Total		0	26,000	26,000	52,000
R7	<i>Fence/Gate/Cattle Guard</i>					
	Fence Material	Total	8,000	0	0	8,000
	Travel/Vehicles	Total	1,000	0	0	1,000
	Contract	Total	10,000	0	0	10,000
	Contract Administration	WM's	2,000	0	0	2,000
	Total		21,000	0	0	21,000
R11	<i>Facilities-Road Repair</i>					
	Labor	WM's	19,000	0	0	19,000
	Travel/Vehicles	Total	5,000	0	0	5,000
	Supplies/Materials	Total	9,500	0	0	9,500
	Equipment	Total	21,500	0	0	21,500
	Total		55,000	0	0	55,000
R11	<i>Facilities-Trails</i>					
	Supplies/Materials	Total	3,000	0	0	2,250
	Travel/Vehicles	Total	5,000	2,000	1,000	8,000
	Contract	Total	204,000	10,000	8,000	222,000
	Contract Administration	WM's	10,000	5,000	2,000	16,250
	Total		222,000	17,000	11,000	250,000
	BURNED AREA REHABILITATION TOTALS		301,000	\$46,000	\$40,000	\$387,000

PART 4–SEED LISTS

Beaver Creek, Cherry Creek and Democrat Gulch Stabilization Aerial Seed Mix

Species	% PLS	Seeds/lb (bulk)	Total Seeds/Acre (Bulk)	PLS Seeds/acre	PLS Seeds/sq.ft.	Aerial Seeding [Acres]	Lbs/Acre	Total Lbs.	Cost / Lb.	Total Cost
Bluebunch Wheatgrass	.85	170,000	340,000	289,000	6.63	3,505	2.00	7,000	13.75	96,250.00
Snake River Wheatgrass	.85	170,000	340,000	289,000	6.63	3,505	2.00	7,000	14.40	100,800.00
Basin Wildrye	.76	130,000	97,500	74,100	1.70	3,505	0.75	2,650	16.30	43,195.00
Tall Wheatgrass	.85	80,000	60,000	51,000	1.17	3,505	0.75	2,650	2.70	7,155.00
Big Bluegrass	.70	917,000	917,000	641,900	14.73	3,505	1.00	3,500	7.75	27,125.00
Western Yarrow	.85	2,700,000	270,000	229,500	5.26	3,505	0.10	350	25.80	9,030.00
Blue Flax	.78	420,000	126,000	98,280	2.25	3,505	0.30	1,050	15.80	16,590.00
Small Burnett	.78	49,000	24,500	19,100	0.43	3,505	0.50	1,750	2.25	3,937.50
Totals					38.8		7.4	25,950		\$304,082.50

PART 5 - NATIVE/NON-NATIVE PLANT WORKSHEET

A. Proposed Native Plants in Seed Mixtures (Both ES & BAR Treatments)

1. Are the native plants proposed for seeding adapted to the ecological sites in the burned area?
 Yes No

Rationale: The proposed native species are all adapted to the ecological sites within the proposed seeding area. The proposed native species were selected utilizing guidance from the Shoshone/Burley Normal Fire Rehabilitation and Environmental Assessment/EA #ID-077-2004-008 (USDI 2005) and the Twin Falls District Emergency Stabilization and Rehabilitation Seed Mixture Development Instruction Memorandum/IM #ID200-2008-003 (USDI 2008). The native taxa were selected from the mid elevation (10-12" ppt.) zone species list. This list was developed utilizing field experience and success in similar ecological sites within the Twin Falls District management area.

2. Is seed or seedlings of native plants available in sufficient quantity for the proposed project?
 Yes No

Rationale: Native seed proposed for use is generally available in the required quantities. Aerial seeding would not occur until the fall of 2013 which should allow seed quantities to be more available.

3. Is the cost and/or quality of the native seed reasonable given the project size and approved field unit management and ESR Plan objectives?

Yes No

Rationale: The native seed proposed for use has been increasingly utilized in recent years for stabilization, rehabilitation and restoration. The demand has resulted in increased production and decreased price.

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 proposed native species were selected from the mid elevation (10-12" ppt.) zone species list contained in the Twin Falls District Emergency Stabilization and Rehabilitation Seed Mixture Development Instruction Memorandum/IM #ID200-2008-003 (USDI 2008). The native taxa provided in the list have exhibited the ability to establish and persist in similar ecological sites in the Twin Falls District management area.

5. Will the current or proposed land management (e.g. wildlife populations, recreation use, livestock, etc.) after the seeding establishment period maintains the seeded native plants in the seed mixture?

Yes No

Rationale: The seeded area will receive a minimum of two growing seasons of rest for establishment prior to resumption of livestock use. The current livestock management grazing system should effectively maintain the plant community over the long term.

B. Proposed Non-native Plants in Seed Mixture (Both ES & BAR Treatments)

General Note: The likelihood of introducing a non-native plant species into a plant community without altering the present competitive interaction among remnant native and non-native species is remote. The proposed seeding of non-native species in this project may result in long-term disruption of ecological processes within the plant community on treated areas. However, the treatment area has already been disrupted by non-native species and the proportion of non-native to native species is low. The inclusion of non-native species is to enhance the probability of re-establishment of a perennial plant community in an environment where normal plant successional processes have been altered by invasion of exotic annual grasses and forbs, along with noxious weeds, and difficult site conditions (i.e. clay soils). Establishing a stable, diverse, multi-layered perennial plant community utilizing both native and non-native cultivars is expected to restore resource values that might not recover naturally, considering the pre-fire plant community and site conditions.

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 use of the proposed non-native plant species is in conformance with the goals and objectives outlined in the 2005 Shoshone and Burley Field Office Normal Fire Rehabilitation Plan. The proposed use of non-native plants is not located within a Wilderness or Wilderness Study Area.

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 proposed aerial seeding treatment area supported a mountain sagebrush community with an herbaceous understory of native grasses and forbs, annual vegetation, and noxious weeds. The natural successional processes and interspecific competition which normally occur within a native plant community have been altered by the introduction and establishment of exotic annual grasses and noxious weeds such as cheatgrass, knapweed, and rush skeletonweed. The proposed non-native plants can effectively compete with these species. Establishing a competitive perennial plant species with a mixture of native and non-native species will promote a greater degree of resiliency within the plant community and restore more natural successional processes.

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

Yes No

Rationale: The proposed introduced plant species have been used in seedings in the Shoshone Field Office management area for over 40 years. The seedings have occurred in range sites similar to those which were burned. Incidental establishment of the proposed species may occur outside of the treatment area by the seasonal movement of various animals, but this occurrence is not common nor has it been observed to result in the long-term displacement and dominance of native plant species or communities.

C. Proposed Seed Species – Natives & Non-Natives (Both ES & BAR Treatments)

Non-native Plants	Native Plants
'Alkar' Tall Wheatgrass <i>Agropyron elongatum</i>	'Anatone' Bluebunch Wheatgrass <i>Pseudoroegneria spicata</i>
'Delar' Small Burnett <i>Sanguisorba minor</i>	'Discovery' Snake River Wheatgrass <i>Elymus waiwaiensis</i>
	'Sherman' Big Bluegrass <i>Poa ampla</i>
	'Trailhead' Basin Wildrye <i>Leymus cinerius</i>
	'Eagle' Western Yarrow <i>Achillea millefolium</i>
	'Maple Grove' Lewis Flax <i>Linum lewisii</i>

PART 6–COST-RISK ANALYSIS

A. Probability of Treatments Successfully Meeting Objectives

Action/ Spec. #	Planned ES Action (LF2200000)	Unit (acres, WMs, number)	# Units	Total Cost	% Probability of Success
S3	Aerial Seeding	Acres	3,505	\$317,000	70
S5	Noxious Weeds	Acres	8,063	\$26,000	90
S6	Soil Stabilization-Aerial Mulching	Acres	572	\$514,000	100
S6	Soil Stabilization-Timber Slash Treatment	Acres	572	\$214,000	100
S12	Closures (Livestock)	#	1	\$0	100
S12	Closure (Recreation)	#	1	\$34,000	100
S13	Monitoring	Acres	8,063	27,000	100
TOTAL COSTS:				\$1,132,000	

Action/ Spec. #	Planned BAR Action (LF3200000)	Unit (acres, WMs, number)	# Units	Total Cost	% Probability of Success
R5	Noxious Weeds	Acres	8,063	\$52,000	90
R7	Fence/Gate/Cattleguard	Miles	2.0	\$21,000	100
R11	Facilities (Recreation Trails)	Miles	11	\$250,000	100
R11	Facilities (Road Repair)	Miles	1.0	\$55,000	100
TOTAL COSTS:				\$378,000	

B. Cost Risk Summary

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 noxious weed treatments would protect the burn area and adjacent BLM lands against further expansion of noxious weeds. Soil stabilization treatments would aid in helping to reduce and stabilize adverse impacts to soil, vegetation and wildlife habitat resources. Public access and safety would be maintained with repair to damaged roads and trails.

No Action: Yes No Rationale for answer: Wildlife habitat on adjacent unburned lands would be compromised with the expansion of annual vegetation and noxious weeds. Without soil stabilization treatments adverse impacts from accelerated erosion would continue short and long term to natural resources and private property. Public access and safety would be compromised.

Alternative(s): Yes No Rationale for answer: N/A

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

Proposed Action: Yes No Rationale for answer: Monitoring and observations of recent weed control efforts in similar soils and precipitation zones indicate that success would be high (Camas County Cooperative Weed Management Area Project). Normal climatic conditions and the exclusion of livestock grazing for on-site vegetation recovery and establishment would increase the probability of success. Aerial seeding and mulching treatments for soil stabilization are the most efficient methods for implementing soil stabilization actions in an efficient and timely manner. The on the ground timber slashing treatment provides additional soil stabilizing cover from an on-site source.

No Action: Yes No Rationale for answer: The burned area has a high potential for expansion of invasive plants and noxious weeds. There is also high potential for invasion of noxious weeds into adjacent unburned areas. Without stabilization treatments the burn area will remain highly vulnerable to accelerated erosion increasing risk to natural resources and private land.

Alternative(s): Yes No Rationale for answer: N/A

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

Proposed Action: ,

No Action:

Alternative(s): ,

Comments: None

C. Risk of Resource Value Loss or Damage

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 7–MONITORING PLAN

Monitoring and evaluation of ESR treatments would be implemented to ensure that treatments are properly implemented, effective, and maintained. Monitoring methods may be qualitative or quantitative, and would be commensurate with the level of treatment complexity and extent. Monitoring and evaluation information would provide adaptive management feedback to improve ESR treatment performance. Monitoring would be the responsibility of the BLM interdisciplinary team. An annual monitoring summary report would be submitted documenting treatment effectiveness.

Treatment/Activity: S3 Aerial Seeding

1) Treatment Objectives:

The objective of the aerial seeding treatment is to establish a stable, diverse perennial plant community comprised of both native and seeded plant species within 3 years. The following grass and forb density objectives are based on ecological site potential.

The soil stabilization aerial seed treatment of grasses and forbs would be considered successful if:

The seeded grass and forb species reach densities of:

- 1) 3 plants per square meter for grasses; and
- 2) 0.2 plants per square meter for forbs.

2) Describe how implementation will be monitored:

Implementation is monitored through contract administration. Any changes from the planned implementation would be noted in the project file “as built” discussion.

3) Describe how effectiveness will be monitored, how it will be measured, and within what time period:

The methods used to monitor the treated area would include field observations, photo plots, and cover transects utilizing the line-point intercept and density plot methods. Plots would be randomly established through the treated area. Effectiveness monitoring of the aerial seeding will be done for a period of three growing seasons.

Treatment/Activity: S6 Soil Stabilization Aerial Mulching

1) Treatment Objectives:

The objective of the aerial mulching treatment is to aerially apply an agricultural straw mulch to provide soil cover to reduce the potential for accelerated soil erosion on forested north-facing slopes in Greenhorn Gulch.

2) Describe how implementation will be monitored:

Implementation is monitored through contract administration. Any changes from the planned implementation would be noted in the project file “as built” discussion.

3) Describe how effectiveness will be monitored, how it will be measured, and within what time period:

The methods used to monitor the treated area would include field observations, photo plots, and cover transects. Plots would be randomly established through the treated area. Effectiveness monitoring of the aerial mulch application will be done for a period of two years following application.

Treatment/Activity: S6 Soil Stabilization-Slash Treatment

1) Treatment Objectives:

The objective of the slash treatment is to apply a timber slash cutting treatment utilizing an 8-10 person crew to provide additional soil cover to reduce the potential for accelerated soil erosion on forested north-facing slopes in Greenhorn Gulch.

2) Describe how implementation will be monitored:

Implementation is monitored through contract administration. Any changes from the planned implementation would be noted in the project file “as built” discussion.

3) Describe how effectiveness will be monitored, how it will be measured, and within what time period:

The methods used to monitor the treated area would include field observations, photo plots, and cover transects. Plots would be randomly established through the treated area. Effectiveness monitoring of the slash treatment will be done for a period of two years following application.

Treatment/Activity: S5 and R5 Noxious Weed Treatments

1) Treatment Objectives:

Dalmatian toadflax, leafy spurge, diffuse knapweed, spotted knapweed, Canada thistle and rush skeletonweed are the primary weeds of concern in the burn area. It is expected that these weeds would expand their range as a result of the fire. Since these weed species are not uniformly distributed across the burn area a quantifiable objective cannot be determined until the first year inventory occurs.

The objective for the first growing season is to conduct an inventory of the burn area and treat any noxious weeds discovered on the burn area.

The objective for the second and third years is to decrease the acreage needing treatment as determined by the first year inventory.

2) Describe how implementation will be monitored:

During the first growing season treatment, a detailed map of location, weed species sprayed, and the amount of herbicide utilized would be documented. The second and third year objective would be measured by the number and size of locations sprayed and the amount of herbicide utilized.

3) Describe how effectiveness will be monitored, how it will be measured, and within what time period.

At the end of three years of treatment, the herbicide spray data would be summarized. If further treatment is required beyond the third year then the responsibility for treatment would be forwarded to the Twin Falls District normal weed spraying program.

Treatment/Activity: S12 Livestock Closure

1) Treatment Objectives:

Exclusion of livestock is critical for the recovery of burned vegetation or establishment and protection of new seedlings. The burn area and seed treatment area would be closed to livestock grazing for a minimum period of two growing seasons to promote recovery of burned vegetation and/or to facilitate the establishment of seeded species as specified in the 2005 Shoshone and Burley Normal Fire Rehabilitation Plan (#ID-077-2004-008).

2) Describe how implementation will be monitored:

Resumption of livestock grazing would ultimately depend on monitoring and meeting of ES/BAR plan natural recovery objectives. Recovery of the treated area would be monitored for availability to grazing on a yearly basis. The monitoring for grazing availability and recommendations for opening the burn area to livestock would be the responsibility of an interdisciplinary team.

Implementation is monitored through rangeland management administration. A grazing decision would be issued closing the burn area to livestock grazing.

3) Describe how effectiveness will be monitored, how it will be measured, and within what time period.

The aerial seed treatment areas would be considered recovered and available for grazing when:

- The amount of bare mineral soil (lacking cover of plants, litter, or biological soil crust) is within 10% of what would be expected for the site,
- Desirable herbaceous perennial plants are producing seed, and

- Desirable perennial vegetation have developed extensive root and shoot systems to provide for soil stabilization and are sustainable under livestock grazing.

Natural recovery areas would be considered recovered and available for grazing when:

- Recovered herbaceous vegetation is providing sufficient ground cover to protect the site from accelerated erosion and expansion/conversion to annual grasses and noxious weeds.
- The amount of bare mineral soil (lacking cover of plants, litter, or biological soil crust) is within 10% of what would be expected for the site. Recommended study methods include line-point intercept or step point cover methods and photo points.

A qualitative visual assessment of the following would also be considered:

- Plant vigor (perennial plants)
- Precipitation information during the non-growing (winter) and growing (spring through early summer) seasons
- Competition with invasive annual plants and noxious weed species
- Seed Production

An evaluation of collected monitoring data is completed documenting that reintroducing grazing to the area would not cause a downward trend in vegetation recovery.

Treatment/Activity: S12 Recreation Closure

1) Treatment Objectives:

The objective of this treatment is to close portions of the burn area year round to all human entry October 1, 2013 – June 30, 2015. The closure of the burn area to human entry is critical for the recovery of burned vegetation or establishment and protection of new seedlings which aid in soil/hillside stabilization. The closure would remain in effect until monitoring shows that ES/BAR rehabilitation objectives have been met. The closure would be instituted under 43 CFR, Section 8364.1.

2) Describe how implementation will be monitored:

The closure will be accomplished by a Press Release/Federal Register Notice/Emergency Closure, signage, gate closures, and BLM law enforcement patrols, with assistance from Blaine County Sheriff's Department law enforcement patrols, to notify the public of the vehicle closure. Signage would be along public roads and trails leading into and across the burned area. Increased patrols would occur during peak use periods, May, June, September and October with regular patrols occurring throughout the rest of the year to monitor and enforce the closure.

3) Describe how effectiveness will be monitored, how it will be measured, and within what time period.

A yearly monitoring report will be submitted by law enforcement describing the effectiveness of the closure and public encounters.

Treatment Activity: R7 Fence/Gate/Cattleguard

1) Treatment Objectives:

The objective of this treatment is to repair or replace approximately 2.0 miles of BLM livestock management fence damaged by the fire. Damaged wood corners and braces would be replaced with galvanized steel posts. Damaged wire would also be repaired. The management fences would be constructed to BLM fence standards.

2) Describe how implementation will be monitored:

Implementation is monitored through contract administration. Any changes from the planned implementation would be noted in the project file “as built” discussion.

3) Describe how effectiveness will be monitored, how it will be measured, and within what time period. Repair and replacement of damaged fences will be monitored through contract administration. Repairs will be documented in a project file “as built” and filed in the project file. Repairs will be completed within the first year of the fire.

Treatment Activity: R11 Facilities (Recreation Trail Repair)

1) Treatment Objectives:

The objective of reconstructing the trails is within 2 years reestablish the trail system impacted by the Beaver Creek fire.

The trail reconstruction project would be considered successful if:

The trails are reconstructed, bridges built, culvert and signs installed according to the specifications outlined in a statement of work and when they are open for public use.

2) Describe how implementation will be monitored:

Implementation is monitored through contract administration. Any changes from the planned implementation would be noted in the project file “as built” discussion.

3) Describe how effectiveness will be monitored, how it will be measured, and within what time period:

The methods used to monitor the trail reconstruction project would include field observations, and riding the trails to ensure proper “flow” has been reestablished. Visitor satisfaction would be determined through informal discussions with users and user groups. Once the trails have been rebuilt they will need to be monitored and maintained to ensure there is a minimum 24 inch trail tread available for users. Some sloughing of the back slope and hillsides above is expected on any new trail which can be maintained using hand labor. However if the hillsides above the trail remain unstable and continue to flow substantial amounts of mud and debris onto the trail, reducing the trail tread to less than 12 inches in width or filling it in entirely, then specialized equipment may be required to clear the trail again. It will be important to monitor the hillside/soil stability above the trails prior to reconstruction to reduce the chances of future rain events washing substantial amounts of material onto the newly reconstructed trails and requiring more than routine maintenance.

Treatment Activity: R11 Facilities (Little Beaver Road Repair)

1) Treatment Objectives:

The objective of this treatment is to repair approximately 1.4 miles of the Little Beaver road. The road was damaged by debris flows from fire damaged slopes.

2) Describe how implementation will be monitored:

Implementation is monitored through contract administration. Any changes from the planned implementation would be noted in the project file “as built” discussion.

3) Describe how effectiveness will be monitored, how it will be measured, and within what time period.

Repairs will be documented in a project file “as built” and filed in the project file. Repairs will be completed within the first year of the fire.

PART 8 - MAPS

1. Fire Perimeter and Land Status
2. Treatment Maps
3. BARC Map

References Cited

U.S. Department of Agriculture, Forest Service. (2004). *Restoring western ranges and wildlands* (General Technical Report RMRS-GTR-136). Fort Collins, CO: Rocky Mountain Research Station.

U.S. Department of Interior, Bureau of Land Management. (2005). *Shoshone and/Burley Field Offices Normal Fire Rehabilitation Plan and Environmental Assessment*. Twin Falls, ID: Twin Falls District Office.

U.S. Department of Interior, Bureau of Land Management. (2008). *Emergency Stabilization and Rehabilitation Seed Mixture Development Instruction Memorandum No. ID200-2008-003*. Twin Falls, ID: Twin Falls District Office.

PART 9 – REVIEW, APPROVALS, and PREPARERS

TEAM MEMBERS

Position	Team Member (Agency/Office)	Initial and Date
Team Leader	Joe Russell (BLM, Shoshone FO)	JR 9/24/13
Operations	Scott Uhrig (BLM, Twin Falls DO)	SU 9/24/13
NEPA Compliance & Planning	Lisa Cresswell (BLM, Shoshone FO)	LC 9/24/13
Botanist	Danelle Nance (BLM, Shoshone FO)	DN 9/24/13
Cultural Resources/Archeologist	Lisa Cresswell (BLM, Shoshone FO)	LC 9/24/13
Rangeland Mgt. Specialist	Claire Josaitis (BLM, Shoshone Field FO)	CJ 9/25/13
Wildlife Biologist	Gary Wright (BLM, Shoshone FO)	GW 9/24/13
Recreation Planner	John Kurtz, (BLM, Shoshone FO)	JK 9/25/13
GIS Specialist	Cassie Mavencamp (BLM, Shoshone FO)	CM 9/24/13
Resource Advisor(s) on Fire	Danelle Nance (BLM, Shoshone FO)	DN 9/24/13

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/ Elizabeth Maclean

9/25/13

FIELD OFFICE MANAGER

DATE

FUNDING APPROVAL

The funding of ES treatments is approved through the appropriate administrative approval level in coordination with the National Office Budget Shop. As funding is available, ES funding requested within a plan that totals below \$100,000 may be approved by the State Director, while ES funding of \$100,000 and above must be approved by the WO. If the ES funding cap is reached, all ES funding will be approved through the National Office in coordination with State ES&R Coordinators to determine highest priority projects. Funding of all BAR treatments is accomplished through a scoring process and is dependent on accurate entries into NFPORS. All funding is approved and allocated on a year-by-year basis.