

**BLM IDAHO POST-FIRE RECOVERY PLAN
EMERGENCY STABILIZATION AND BURNED AREA REHABILITATION
2011 PLAN TEMPLATE**

BLAIR FIRE

**BUREAU OF LAND MANAGEMENT/BOISE DISTRICT/FOUR RIVERS FIELD OFFICE
IDAHO STATE OFFICE**

FIRE BACKGROUND INFORMATION

Fire Name	Blair
Fire Number	GAL7
District/Field Office	Boise/Four Rivers
Admin Number	LLIDB01000
State	Idaho
County(s)	Elmore
Ignition Date/Cause	8/15/2011-Lightning
Date Contained	8/18/2011
Jurisdiction	<i>Acres</i>
BLM	10,853
State	485
Private	294
Other	0
Total Acres	11,632
Total Costs	\$582,000
Costs to LF20000ES (2822)	\$516,000
Costs to LF32000BR (2881)	\$66,000
Costs to other programs	

Status of Plan Submission (check one box below)

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

PART 1 - PLAN SUMMARY

BACKGROUND INFORMATION ON THE FIRE

The Blair Fire was ignited by lightning on August 15, 2011, and was contained August 18, 2011. The fire burned a total of 39,577 acres across two BLM Districts, including 11,632 acres on the Boise District side (west side) of Hill Creek, and approximately 27,945 acres on the Twin Falls District side (east side) of Hill Creek. The burned area is on the northern edge of slickspot peppergrass (LEPA) habitat, a species listed as Threatened under the ESA. Additionally, the fire burned through greater sage-grouse habitat, a candidate species that warrants listing under the Endangered Species Act (ESA) of 1973. This fire also burned through crucial mule deer winter range and consumed thousands of acres of sagebrush and bitterbrush habitat that provided browse (forage) and thermal cover for wintering mule deer. The loss of forage and cover in this area will likely lead to significant population reductions for the mule deer and sage-grouse populations that utilized the habitat destroyed by the fire. Both local populations of these species are already stressed due to loss of habitat from other fires (i.e. South Trail Fire 2010; Hot Tea Fire 2010) and from habitat degradation due to invasive annual grasses, mainly downy brome (cheatgrass) and medusahead wildrye.

Because of the large concentration of wintering mule deer, the area is very popular with horn hunters that canvas the landscape by foot and motorized vehicle searching for antler sheds from mule deer bucks. The Idaho Department of Fish and Game has requested a complete area closure during critical winter months for mule deer. This closure will also protect sage-grouse that winter in the area. During winter months, especially late winter, when horn hunters are more active deer are susceptible to death by disturbance. Disturbance causes deer to use up precious energy reserves at a time when forage is difficult to find and temperatures can be extreme. This will be compounded by the major loss forage in the burned area. Most of the does are pregnant during this time of year which raises their energy consumption needs. To minimize disturbance caused mortality, a no entry closure of approximately 31,534 acres will be established from December 15 to April 30. Within the seasonal non entry closure, approximately 14,841 acres will be closed to motorized vehicles throughout the year. The closures will be in conjunction with the Shoshone Field Office of the Twin Falls District BLM.

These closures will reduce human caused disturbance and mortality to mule deer and sage-grouse during the critical winter months. The vehicle closure will also protect seeded areas from being damaged and augment the restoration of forage and cover. The closures will remain in effect until resource objectives have been achieved. IDFG supports working cooperatively in providing law enforcement patrols in enforcing the area closure.

There were parts of five livestock grazing allotments impacted by the fire including Hammet 1 (≈ 7,243 acres burned), Hammet 4 (≈ 101 acres burned), Emigrant Crossing (≈ 1,113), King Hill Canyon (≈ 2,708), and Sugarbowl (≈ 468).

Data from LEPA surveys completed in 2010 provide a good understanding of the pre-fire vegetation in the burned area. Common shrubs in the burned area consist of Wyoming big sagebrush, low sagebrush, gray rabbitbrush, and scattered pockets of antelope bitterbrush. Bitterbrush was more prevalent near and in Kings Hill Creek Canyon. Understory vegetation

was a mix of native and non-native grasses and forbs. Native grasses identified during surveys include bottlebrush squirreltail, Baltic rush, Sandberg bluegrass, bluebunch wheatgrass, six-week fescue, needle and thread grass, and basin wildrye. Common non-native grasses on site are cheatgrass, medusahead wildrye, and bulbous bluegrass. Common native forbs in the burn area consist of common sunflower, Hooker's balsamroot, tapertip hawksbeard, woollypod milkvetch, curlycup gumweed, while non-native forbs in the burned area include bur buttercup, tumble mustard, prickly lettuce, and stork's bill. While there is a good diversity of species within the fire perimeter, the prevalence of annual grasses caused the area to be identified as annual grassland during sage-grouse habitat classification.

The fire is within the Mountain Home Uplands Level IV Ecoregion of Idaho (McGrath et al. 2002). Ecoregions stratify the environment by its probable response to disturbance (Bryce et al. 1999), and are critical for structuring and implementing ecosystem management strategies across geographical areas (Omernik et al. 2000).

The Mountain Home Uplands ecoregion consists of arid, shrub- and grass-covered plains with hills and basalt-capped buttes. Elevation varies from 2,500 to 4,300 feet (762 to 1,311 m), with some buttes up to 5,000 feet (1,524 m). It is mostly rangeland and is sparsely populated, unlike regions to the west and east. It is flanked by foothills to the north and south and by the Magic and Treasure Valleys to the east and west. Today, it supports cheatgrass, crested wheatgrass, medusahead wildrye, Wyoming and basin big sagebrush, alkali sagebrush, and antelope bitterbrush. Stock carrying capacity is low. Native grasses are much rarer and vegetative regeneration capacity is more limited than in the cooler Eastern Snake River Basalt Plains, which has more available moisture.

Off-road travel by vehicles, off-highway vehicles and equipment will be necessary to complete project treatments and other administrative functions.

LAND USE PLAN CONSISTENCY

The following treatments are proposed under this emergency stabilization (ES) and burned area rehabilitation (BAR) plan.

Aerial Seeding (S3/R3), and Seedling Planting/Seed Cache (S4/R4): The proposed aerial seeding, and seedling planting treatments are addressed in the 1987 Jarbidge RMP: The 1987 Jarbidge RMP, Wildlife Management section, states "Wildlife habitat will be managed to maintain or increase wildlife numbers over the long term, and the total acres of unsatisfactory crucial habitat will be reduced over the long term." and further stipulates under Management Unit Area 3 – Lower Bennett, "Manage big game habitat to support 350 mule deer in winter and 75 mule deer year long and 25 antelope. Improve sage grouse nesting and brood rearing habitat by 2005". Under the Resource Management Guidelines section the plan states, "Minimize soil erosion by maintaining good, perennial vegetation cover on all sites. Manage native perennial range to attain good ecological condition. Rehabilitated or manipulated sites are considered to be in good condition from a watershed standpoint when at least 75% (by weight) of the sites potential for production is composed of perennial vegetation". The same section also states, "Protect and enhance endangered, threatened and sensitive species habitats in order to maintain or enhance existing and potential populations within the planning area". It goes on by saying, "Seed mixtures for range improvement projects and fire rehabilitation projects will include a mixture of grasses, forbs and shrubs that benefit

sage grouse. Rehabilitation of areas, particularly large areas, that have a high potential for fires or have a high frequency of fires, will utilize irregular buffer strips with seed mixtures that are fire resistant and/or meet watershed protection, wildlife and riparian objectives. These buffer strips will receive first priority for seeding prior to reseeding rest of burned area”.

Noxious Weeds (S5/R5): Noxious weeds are present within the fire perimeter and are common in the adjacent area. The control of noxious weeds is consistent with Jarbidge RMP, Management Unit Area 3 - Lower Bennett Objectives, “Improve lands in poor ecological condition.” In addition under the Resource Management Guidelines the plan states, “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 that purpose”. The control of noxious weeds is in compliance with State and county laws.

Soil Stabilization (S6): Straw waddles will be placed in two drainages along King Hill County Road where soils are highly erodible. The straw waddles will catch sediment and keep it onsite until vegetation can re-establish with root systems that can hold the soil in place. This is consistent with the Jarbidge RMP Resource Management Guidelines which states, “Soils will be managed to maintain productivity and to minimize erosion. Minimize soil erosion by maintaining good, perennial vegetation cover on all sites. Rehabilitated or manipulated sites are considered to be in good condition from a watershed standpoint when at least 75% (by weight) of the sites potential for production is composed of perennial vegetation.”

Fence/Gate/Cattle Guards (S7/R7), Fence Repair/Gate (R7), Livestock Closure (S12/R12): This is consistent with the Jarbidge RMP Resource Management Guidelines which states, “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 seedings 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”. Existing pasture and allotment fences would be repaired to ensure that livestock remain within their area of authorized use and off the burned area until resource objectives are met. In addition temporary fence would be constructed to protect treatment areas and allow grazing to continue on unburned portions of pastures. The NFRP states that gates, cattleguards, fences, and other control features would be repaired and/or constructed as needed to protect treatments during the recovery period or the seeding establishment period (NFRP, p. 17). The BLM ESR Handbook allows for repair or reconstruction of existing BLM approved fences, as well as temporary protection fence to protect new seedings and natural recovery areas (H-1742-1, p. 31).

Complete Area Closure (S12/R12): A no entry closure by people afoot or by motorized vehicle will be in effect from December 15 through April 30, with the motorized vehicle closure extending throughout the year until resource objectives have been achieved. BLM and IDFG law enforcement will work cooperatively to ensure the closure is effective in protecting wintering deer and the newly seeded areas from human disturbance during winter months when large numbers of deer antler hunters frequent the area.

Facilities (R11): The fire burned over the historic Oregon Trail. Four signs that identified the location of the trail that were destroyed by the fire would be replaced. This is consistent with the Jarbidge RMP Resource Management Guidelines which states, “The BLM will protect 51 miles of the Oregon Trail through special “no surface disturbance” stipulations”. Replacing the signs would ensure that the location of the trail is identified and protected from ground disturbing activities.

Monitoring Effectiveness of Treatments (S13): Monitoring data objectives will be developed and the BLM will evaluate this plan based on monitoring data analysis to determine the extent of success or failure to meeting those objectives.

LIVESTOCK MANAGEMENT

Allotment OR Pasture Name	Allot. #	Total Allot/ Pasture Acres	Allot/ Pasture Burned Acres	% of Pasture burned	Livestock On-Off Dates	Fence Needed Yes or No	Permittee Name	Range Specialist Name
Emmigrant Crossing	1028	4,338 / 2,138	North 1,113	52	4/10 – 6/30 10/1 – 12/5	N	Casa Del Norte	Mike Barnum
Hammet 1	1033	29,157 / 5,198	South 2,970	57	4/10 – 7/9, 10/1 – 11/30 4/10 – 7/9 4/10 – 7/9	Y	Casa Del Norte Iron Horse Ranch John Walker	Mike Barnum
Hammet 1	1033	29,157 / 23,672	North	18	4/10 – 7/9, 10/1 – 11/30 4/10 – 7/9 4/10 – 7/9	N	Casa Del Norte Iron Horse Ranch John Walker	Mike Barnum
Hammet 4	1036	16,494 / 12,811	North 101	<1	4/10 – 6/30, 10/15-12/31	N	Half Moon Ranches	Mike Barnum
King Hill Canyon	1041	2,887	2,708	94	3/15 – 5/15	N	George Presley	Mike Barnum
Sugar Bowl	1124	1,994	468	24	3/1 – 3/31, 11/15 – 2/28	Y	George Presley	Mike Barnum

COST SUMMARY TABLES

Emergency Stabilization (LF20000ES):

GAL7 BLAIR			EMERGENCY STABILIZATION COST SUMMARY TABLE						
Action/ Spec. #	Planned Action	Unit	# Units	Unit Cost	FY11	FY12	FY13	FY14	Totals by Spec.
S1	Planning (Project Mgmt)	WM's	2	\$8,000	\$0	\$8,000	\$8,000	\$0	\$16,000
S3	Aerial Seeding	Acres	7164	\$42	\$0	\$298,000	\$0	\$0	\$298,000
S4	Seedling Planting (Seed Caching)	#	5000	\$1.40	\$0	\$7,000	\$0	\$0	\$7,000
S5	Noxious Weeds	Acres	10853	\$1.11	\$0	\$12,000	\$0	\$0	\$12,000
S6	Soil Stabilization (Other than seedling, planting)	Acres	15	\$800	\$0	\$12,000	\$0	\$0	\$12,000
S7	Fence/Gate/Cattle Guard	Miles	4	\$11,750	\$0	\$38,000	\$0	\$9,000	\$47,000
S12	Closures (area, OHV, livestock)	Allotments	6	\$2,167	\$0	\$3,000	\$0	\$10,000	\$13,000
S13	Monitoring	Acres	30000	\$3.70	\$0	\$37,000	\$37,000	\$37,000	\$111,000
TOTAL COSTS (LF20000ES)					\$0	\$415,000	\$45,000	\$56,000	\$516,000

Burned Area Rehabilitation (LF32000BR):

GAL7 BLAIR			BURNED AREA REHABILITATION COST SUMMARY TABLE						
Action/ Spec. #	Planned Action	Unit	# Units	Unit Cost	FY11	FY12	FY13	FY14	Totals by Spec.
R1	Planning (Project Mgmt)	WM's	1	16000	\$0	\$8,000	\$8,000	\$0	\$16,000
R4	Seedling Planting	#	10853	2.67	\$0	\$9,000	\$20,000	\$0	\$29,000
R5	Noxious Weeds	Acres	21706	0.92	\$0	\$0	\$12,000	\$8,000	\$20,000
R9	Cultural Protection (Stabilization/Patrol)	signs	4	250	\$0	\$1,000	\$0	\$0	\$1,000
TOTAL COSTS (LF32000BR)					\$0	\$18,000	\$40,000	\$8,000	\$66,000

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. N/A

ES Issue 2 - Soil/Water Stabilization.

The soils in the southwest (King Hill and Sugar Bowl Rds. intersection area) portion of the burn are composed of sandy loams and loams on moderate to steep slopes. Water and wind erosion of these soils was a concern after the South Trail Fire (2010) and is a concern once again after the Blair Fire. King Hill and Sugar Bowl County Roads are adjacent to the burned area on the southwest side of the burn and have culverts in place to prevent washouts and divert overland water flow away from the roadbeds. Two of these culverts on the King Hill County Road have headcuts on the down slope side of the road. The headcuts were treated in 2010 by placement of aprons/riprap to prevent further downcutting and straw waddles were placed along the two drainages leading to the culverts to slow overland flow of water. The riprap and aprons are still in place from last year but the straw waddles were damaged by the Blair Fire and need to be replaced. Seeding of grasses, forbs, and shrubs will help to stabilize soils on steep slopes and drainages. Protective fencing and livestock allotment closures will aid in meeting ESR vegetation establishment objectives.

Treatment/Activity S6 Soil Stabilization

A. Treatment/Activity Description. The proposal is to place a series of up to ten straw waddles in two ephemeral drainages both above and below culverts along the King Hill County Road. Each structure would consist of approximately three straw waddles placed perpendicular to the stream channel and will be anchored in place with wooden stakes. These structures will remain in place until the unstable soils have re-vegetated and stabilized. This work would be completed in the fall of 2011 in advance of 2012 spring run-off.

B. How does the treatment relate to damage or changes caused by the fire? How does the treatment relate to damage or changes caused by the fire? The fire burned off upland vegetation on steep slopes with erodible soils adjacent to the King Hill County Road. Over-surface water flow and soil erosion during the spring of 2012 is expected to be greater than if upland vegetation was still present and plugged culverts/road washouts are more probable. The proposed treatments will slow water flows reducing its erosive power and reduce degradation to channels and infrastructure. The waddles will also intercept eroding soils and retain them on-site. Reducing erosion and maintaining soil onsite will allow vegetation to re-establish at a faster. This type of structure is proven to be effective in stabilizing soils after a fire.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The proposed erosion control treatments comply with management direction in the Jarbidge RMP (see Land Use Plan Consistency, page 3 (S6). The cost of replacing culverts and repairing washed out roads would be much greater than the cost of being proactive in slowing erosional forces. The project

is cost effective because the proposed work can be accomplished with a relatively small crew (<5 people) and in a short amount of time (two weeks).

Treatment/Activity S7 Fence/Gate/Cattle Guard

A. Treatment/Activity Description: Approximately four miles of new protective fence will be constructed in the Sugarbowl and Hammet 1 Allotments. The three strand, bottom wire smooth, temporary fence will tie into existing structures and be built to BLM standards for wildlife. The fence will be removed following the closure period.

B. How does the treatment relate to damage or changes caused by the fire? The objective of this treatment is to protect the burned area and seeding treatment to allow for seeding establishment as well as provide critical rest to existing native vegetation from livestock grazing. Construction of four miles of temporary fence will avoid the need to close the entire pasture to livestock grazing.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Most of the burned area is protected by existing fences. Construction of four miles of temporary protective fence would allow livestock grazing to occur in the remaining unburned portions of the pastures during the closure period.

Treatment/Activity S12/R12 Livestock Closure

A. Treatment Activity/Description: The Blair burned area would be rested from livestock grazing until monitoring data indicates that ES and BAR objectives have been met and the vegetation can withstand grazing pressure.

B. How does the treatment relate to damage or changes caused by the fire? The purpose of this treatment is to rest the burned area from livestock grazing to provide the opportunity for recovery of on-site vegetation and new seeding establishment. Establishment of resilient, competitive, perennial plant communities would hinder the expansion of annual invasive vegetation and noxious weeds and stabilize soil resources.

C. Why is the treatment/Activity reasonable, within policy, and cost effective? There are no costs associated with the livestock closure.

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

This fire occurred in the Mountain Home Sage-grouse Planning Area. As identified in the Idaho Sage-grouse Management Plan (2006), sage-grouse habitat in the 10,853 acres of public land in the Boise District BLM was classified as R2 sage-grouse habitat. The State sage-grouse plan explains that R2 habitats are areas dominated or strongly influenced by invasive annuals such as cheatgrass and medusahead rye. In areas of R2, sagebrush may be present, but, in general, understories are not suitable for sage-grouse.

Common threats to sage-grouse in this planning area include wildland fire and subsequent altered fuels and fire regime, proliferation of invasive annual species, wind energy development,

powerlines, and other human disturbance. Some of the conservation measures identified in the State Plan include consideration of sage-grouse habitat during restoration efforts after fire, emphasize the use of native plants to the greatest extent possible, plan for noxious weed control, and incorporate greenstrips to provide greater firefighter safety and protect habitat.

This burned area is also on the northern edge of habitat for slickspot peppergrass (LEPA), a species listed as Threatened under the ESA. Re-establishing and maintaining plant health and vigor in the burned area will provide the greatest opportunity for habitat persistence for both of these vulnerable species.

Treatment/Activity: S3 Aerial Seeding

Seed Mix 1 (7164 acres)

This mix consist of plant species desirable for sage-grouse forage and cover and species that would not invade LEPA habitat including Wyoming big sagebrush, and forbs including Hooker's balsamroot, yarrow, and tapertip hawksbeard.

This seed mix is composed of native forb and shrub species that would be applied aerially in the burned portion of the WSA and King Hill Creek Canyon. Native varieties that have been developed to establish and persist in these soil types and precipitation zone will be utilized to help re-establish a native shrub/forb community that is consistent with the needs of sage grouse.

A. Treatment/Activity Description: Approximately 3,800 acres of sage-grouse habitat and crucial mule deer winter range that burned in a WSA and 3,364 acres in the steep King Hill Creek canyon would be aerially seeded in late fall/early winter of 2011. The seed would be flown on before winter snow accumulation to ensure seed to soil contact. Seed Mix 1 would contain a shrub and forb mixture desirable for sage grouse and mule deer habitat and forage. Seed would be broadcast using an end product contract by either a helicopter or fixed wing aircraft.

B. How does the treatment relate to damage or changes caused by the fire? 1) The aerial seeding of grasses/forbs/shrubs would augment the replacement of those species removed by the fire event before invasive species of annuals and noxious weeds have a chance to re-establish and expand. 2) We anticipate establishing a diverse mix of functional native and non-native species that would provide an environment to attract pollinators to enhance propagation of LEPA and critical forage and cover for sage-grouse while out-competing noxious and/or invasive species found in the area. 3) Other aerial seeding applications in the area have proven to be very effective in establishing sagebrush and forbs. The chance of success is the highest in the first year after the fire when there are sufficient open areas for seeded species to establish.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The burn removed an area of mature sagebrush and bitterbrush within sage-grouse habitat and burned through LEPA habitat. These are the Bureau's highest priority areas for reestablishment of shrubs, herbaceous grasses, and forb species. Benefits to critical resources in the long-term would outweigh the cost of the treatment. Treatments attempted after the first year of the fire disturbance would be much higher in cost and the success rate would be minimal at best. The treatment would augment the restoration of suitable habitat conditions for sage-grouse and

LEPA.

Treatment/Activity: S4 Seed Cache Planting

A. Treatment/Activity Description: The proposal is to restore the shrub structure lost in the fire by caching bitterbrush seeds. Seed caches would be deposited in the ground in November/December 2011 prior to snowfall. Seed caches would be placed throughout the burn where pockets of mature shrubs occurred prior to the fire. Caches would be planted by hand using PVC pipe to make the hole, placing 5-7 seeds down the pipe into the hole and covering the hole with soil

B. How does the treatment relate to damage or changes caused by the fire? The planting of seed caches would help to ensure long-term vegetation structure needed for sage-grouse cover and forage. Mature shrub cover existed within the burn perimeter prior to the fire. 2) We would expect to achieve a mature stand of shrubs within 10 years from seed caching which would provide habitat for sage-grouse and also sagebrush obligate species and big game that depend on shrubs for cover and as a food source during the critical winter months. 3) Seed caching treatments from past fire rehabilitation in similar soils, climate, and topography is proving to be an effective method in establishing shrubs.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The costs of planting seed caches are minimal for the amount of seed that can be dispersed and properly seeded. The burn removed an area of mature sagebrush and bitterbrush within sage-grouse habitat. These are the bureau's highest priority areas for reestablishment of shrubs, herbaceous grasses, and forb species. Benefits to critical resources would outweigh the cost of treatment. Treatments attempted after the first year of the disturbance would be much higher in cost and the success rate would be minimal at best. The treatment would augment the restoration of suitable habitat conditions for sage-grouse.

Treatment Activity S12/R12: Area Closure

A. Treatment/Activity Description: The proposal is to close 31,534 acres in the burn and surrounding area to all human entry from December 15 to April 30 and close 14,841 acres to vehicle use in the burn and surrounding area the entire year. These closures will likely be in effect until resource objectives have been achieved, which could take several years. This will be accomplished by a Federal Register Notice/Emergency Closure, signage, gate closures, and BLM and Idaho State Fish and Game law enforcement patrols to notify the public of the area closure in and surrounding the burned area. Increased patrols would occur during peak use periods of hunting and antler collecting with regular patrols occurring throughout rest of year to monitor and enforce closure. Since this fire occurred in two BLM districts (Boise and Twin Falls) the districts will work together with the Idaho Fish and Game for closure enforcement and work within the same assistance agreement. Twin Falls district will initiate the Federal Register Notice.

B. How does the treatment relate to damage or changes caused by the fire? The area is habitat for greater sage-grouse and crucial mule deer winter range. Several thousands of acres of shrub

cover and forage were lost in the fire. With the loss of shrub cover this opens up the area to more overland travel by antler hunters, which leads to greater disturbance to Candidate sage-grouse and mule deer. In addition to causing disturbance related mortality, increased numbers of antler hunters on foot and on motorized vehicles would damage any recovering existing vegetation, harm the establishment of seeded species, and promote the spread of noxious weeds.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Utilizing current BLM and IDFG law enforcement personnel for additional patrol efforts is cost efficient. If a closure is established through the Federal Register to protect sensitive species and assist in vegetative recovery, then enforcement of this closure is the responsibility of the agencies. The continued decline in sage-grouse, mule deer, and other species' populations, and the degradation to habitat from overland travel and the establishment of new trails that would occur in this area greatly outweigh the cost of the closure. Funding had been requested for the Boise District previous year for the Big and Hot Tea Fires. The Blair fire is in close vicinity of these fires. Funding allocated for closure patrols will be used to fund the patrols for the Blair fire in FY12 and FY13. If additional funding is necessary it will be requested at a later date.

ES Issue 4 - Critical Heritage Resources.

The wildfire burned over portions of the Oregon Trail North Alternative Route. Loss of upland vegetation surrounding the trail has made this cultural resource more susceptible to erosion from water and wind. Seeding of grasses, forbs, and shrubs will decrease erosion forces and help to preserve the future integrity of the trail.

See ES Issue 3 - Habitat for Federal/State Listed, Proposed, or Candidate Species treatments S3 Aerial Seeding and S4 Seedling Planting/Seed Cache Planting above.

ES Issue 5 - Invasive Plants and Weeds: BAR Issue 2-Weed Treatments

First year inventory and treatment of noxious weed species meets the ES criteria of maintaining the habitat in the highest priority areas. Noxious species identified in the burned area include diffuse knapweed, whitetop, Rush skeletonweed, and scotch thistle. Immediate identification and treatment of these noxious weed species is necessary for their control. A recreational closure will help to reduce the introduction, transportation, and spread of noxious weeds.

Continued inventory and treatment of noxious weeds in the second and third year meets the BAR Criteria of actions necessary to regenerate and maintain identified critical sagebrush steppe and sage grouse habitat. Blair Trail Reservoir is directly north of the burn and the west and east sides of the burn are bordered by county roads which could serve as a significant source of future weed transportation and introduction. A recreational vehicle closure will help to reduce the introduction, transportation, and spread of noxious weeds. Continued inventory and treatment of weeds will control their invasion and assist with the establishment of desirable native vegetation.

Treatment Activity S5/R5: Noxious Weeds

A. Treatment/Activity Description: The proposal is to inventory and treat any noxious and/or invasive weeds within the burned area. Whitetop, rush skeletonweed, and diffuse knapweed are known to occur in the area. Inventory of weeds would occur both this fall (2011) and next spring

(2012) and treatment of any infestations would occur over the next three springs and/or summers if necessary (2012, 2013, 2014). Weed control would occur using chemicals found on the BLM list of approved chemicals and applied either by ATV or backpack sprayer. All procedures found on the chemical manufacturer's label would be followed.

B. How does the treatment relate to damage or changes caused by the fire? The likelihood of noxious weeds increasing within the burned area is very high because of the freshly exposed topsoil and proximity of weed species. The control of noxious weeds will help to ensure the successful germination and establishment of seeded/planted species as well as increase the vigor of native plants already on site (e.g. grass species that will grow back from their root crowns). Control of noxious is imperative to creating a diverse mixture of plant species that will provide suitable conditions for quality habitat for sage-grouse, other sagebrush obligate wildlife, and mule deer in the future.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Early detection and rapid response for weed treatments is much more cost effective than addressing a noxious weed infestation that is much larger and harder to control later. Field work is combined with other weed treatments in the area for cost efficiency. Surveying and treating weed infestations will occur before they become established. Current policy states that treatment should occur where there is threat that those species may quickly invade or hamper reestablishment of native vegetation.

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 2 - Weed Treatments. See ES5 section on Noxious Weeds.

BAR Issue 3 - Tree Planting.

The burned area was extremely important for many species of wildlife including greater sage-grouse and mule deer. The loss of cover and forage will negatively impact the species. Planting seedling

Treatment/Activity: R4 Seedling Planting

A. Treatment/Activity Description: The proposal is to restore the shrub structure lost in the fire

by replanting bitterbrush seedlings. Bare root bitterbrush seedlings would be planted in early spring 2013. Seedlings will be grown from locally collected seed stock to ensure the most adaptable planting stock available. Plantings would be done by hand using sharpshooter shovels, hoedads, or augers.

B. How does the treatment relate to damage or changes caused by the fire? The planting of shrub seedlings would help to ensure long-term cover and forage needed by mule deer, sage-grouse, and many other species. Mature shrub cover existed within the burn perimeter prior to the fire. 2) We would expect to achieve a mature stand of shrubs within 5-10 years following shrub planting which would provide habitat for all species in the area that depend on shrubs for cover and as a food source during the critical winter months. 3) Other shrub planting treatments from past fire rehabilitation in similar soils, climate, and topography have proven to be very effective in establishing shrubs that grow faster and start producing seed earlier than if the burned area were left to re-vegetate naturally.

C. Why is the treatment/activity reasonable, within policy, and cost effective? The costs for seedling planting would be reduced by utilizing volunteer planting. The burn removed an area of mature shrubs that provided essential habitat for many species. These are the bureau's highest priority areas for reestablishment of shrubs, herbaceous grasses, and forb species. Benefits to critical resources would outweigh the cost of treatment. The treatment would augment the restoration of suitable habitat conditions for sage-grouse.

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

Treatment/Activity: R9 Cultural protection

Four signs identifying the location of the historic Oregon Trail were burnt during the incident. These signs helped to protect the trail from ground disturbing activity by making people aware of the historic landmark.

A. Treatment/Activity Description: Install four carsonite signs along the historic Oregon Trail.

B. How does the treatment relate to damage or changes caused by the fire? The four signs were destroyed during the fire event.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Keeping the trail location identified makes it easier to protect from ground disturbing activities. The signs also allow the public to view the location of the historic trail.

PART 3 – DETAILED TREATMENT COST TABLE See attached excel file.

PART 4 – SEED LISTS

AERIAL SEED Mix 1

Seed Type/Variety	PLS Rating	Seeding Acres	Bulk Lbs/ Ac	PLS Lbs/ Ac	BULK # Seeds/ Lb	PLS # Seed Lb	BULK # Seed/ Ac	PLS # Seed/ Ac	PLS # Seed/Sq	PLS Total Lbs	BULK Total Lbs	Cost Per Lb	Total Cost
Small Burnet, Delar	0.7600	7,164	2.0	1.5	50,000	38,000	100,000	76,000	1.7	10,889	14,350	\$3.00	\$ 43,050
White Western Yarrow	0.8100	7,164	0.05	0.0	2,700,000	2,187,000	135,000	109,350	2.5	290	400	\$20.00	\$ 8,000
Tapertip Hawksbeard	0.7650	7,164	0.05	0.0	800,000	612,000	40,000	30,600	0.7	274	400	\$75.00	\$30,000
Big Sagebrush, Wyoming	0.1600	7,164	1.0	0.16	2,500,000	400,000	2,500,000	400,000	9.2	1,146	7,200	\$18.00	\$ 129,600
TOTAL COST		7,164	3.1	1.8	*****	*****	2,775,000	615,950	14.1	12600	22350	***	\$ 210,650

SEEDLINGS

Seedling Species	Acres of Seedlings Planted	# of Seedlings / Acre	Total # of Seedlings	Cost / Seedling	Total Cost FY11	Total Cost FY12	Total Cost FY13	Total Cost FY14
Antelope Bitterbrush								
FY11			0	\$0.85	\$0			
FY12 (Purchased)	40	250	10,000	\$0.85		\$8,500		
FY13			0	\$0.85			\$0	
FY14			0	\$0.85				\$0
TOTAL	40		10,000		\$0	\$8,500	\$0	\$0

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 natives in the seed mix are adapted to the area and the precipitation zone and will have a high chance of success to establish in the area.
2. Is seed or seedlings of native plants available in sufficient quantity for the proposed project?
Yes No Rationale: With the low number of burned acres that have occurred this summer throughout the western US there should be sufficient quantities of seed available.
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 current market rate for seed is reasonable compared to the benefit to the habitat. Seed purchased by the BLM is tested and insured to be of high quality and free of noxious weeds.
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: We have had success in establishing these species in surrounding areas with similar soil types, precipitation zones, and invasive competition. It is important to seed prior to the first growing season following wildfire disturbance to ensure the highest chance of success.
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: Pastures will be closed or livestock will be controlled by protective fence throughout the burned area and will allow the BLM to manage livestock use until seeded plants are ready to withstand grazing pressure.

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

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: Proposed non-native plants will stabilize soils and enhance sage-grouse habitat providing a valuable food source for both upland birds and mule deer in this area of crucial winter range.
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 non-native species will not out-compete existing or seeded natives in the area. The species proposed will be preferred by wildlife and livestock over the natives allowing the natives to establish and flourish on site.

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

Yes No Rationale: Proposed species are not competitive and do not have the ability to interbreed with local and seeded natives.

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

Native Plants	Non-Native Plants
Western Yarrow, white	Small Burnette, Delar
Tapertip Hawksbeard	
Big Sagebrush, Wyoming	

PART 6. – COST-RISK ANALYSIS

A. Probability of Treatments Successfully Meeting Objectives

Action/Spec. #	Planned ES Action (LF20000ES)	Unit (acres, WMs, number)	# Units	Total Cost	% Probability of Success
S3	Aerial Seeding	Acres	7,164	\$298,000	70
S4	Seedling Planting (shrub/tree) (seed cashing)	#	5,000	\$7,000	70
S5	Noxious Weeds	Acres	10,853	\$12,000	100
S6	Soil Stabilization (other than seeding/planting)	#	15	\$12,000	95
S7	Fence/Gate/Cattleguard	Miles	4	\$47,000	100
S12	Closures (OHV, livestock, area)	Acres	31,534	\$13,000	99
TOTAL COSTS:				\$389,000	

Action/Spec. #	Planned BAR Action (LF32000BR)	Unit (acres, WMs, number)	# Units	Total Cost	% Probability of Success
R4	Seedling Planting (shrub/tree)	#	10,000	\$29,000	
R5	Noxious Weeds (2 years)	Acres	20,000	\$20,000	
R6	Soil Stabilization (other than seeding/planting)	Acres		0	
R7	Fence/Gate/Cattleguard	Miles		0	
R9	Cultural Protection (stabilization/patrol)	Acres	4	\$1,000	
TOTAL COSTS:				\$50,000	

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 proposed actions should reduce the risks to natural resources, T&E species, sage-grouse, crucial mule deer winter range, and the Oregon Trail. Treatment of the upland vegetation was designed to minimize impact to natural resources and to limit sediment. As with any treatments that are weather dependent, there is always a chance of limited success, especially with seeding treatments, but the risks to natural resources are far greater without treatment than as a result of the proposed action treatments.

No Action Yes No Rationale for answer: If we lose the one year treatment window the area will more than likely see a large increase of invasive annual grasses and noxious weeds in the area. The likelihood of the remaining stands of native shrubs surrounding the burn to naturally reseed the area prior to the occupation of invasives is very low. The area will more than likely eventually evolve into an annual grass dominated site that exists within an area of mature shrubs, which would increase the chance of repeated fires and a loss of the remaining shrub stands. This area is identified as habitat for sage-grouse and crucial mule deer winter range. With the loss of shrubs and forbs the area would become unsuitable for habitat and both sage grouse and mule, and the populations in the area would decline. The risks to private property adjacent to the burned area could cause a loss of grass forage production for livestock use if additional wildfires were to occur.

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: We have found that if seeding of shrubs/forbs/ occurs in an area previously occupied by mature shrubs prior to the wildfire event in the first fall/winter, the chance of success is high. The seeded species can establish in the ash mound areas of burned shrubs because there is little to no competition from annual grasses. The area is in both sage-grouse habitat and crucial mule deer winter range. The cost of restoring this area back to suitable habitat and is acceptable.

No Action Yes No Rationale for answer: There would be no costs associated with no action, but no benefits would be realized and further degradation of ecosystem components would occur.

Alternative(s) Yes No Rationale for answer: 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 objectives and therefore is recommended for implementation from a Cost/Risk Analysis standpoint?

Proposed Action ,
Alternative(s) ,
No Action

Comments: The proposed treatments are anticipated to be cost effective, and reduce vulnerability of the site to expansion of invasive annuals by restoring ecosystem components lost by the fire. The seeding will increase shrub cover and forb diversity helping to restore

the area back to suitable habitat for sage grouse and mule deer. The cost/risk is reasonable considering the benefits to the long-term health of the ecosystem and important habitat for sage-grouse and mule deer.

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

S3/R3 Aerial Seeding

- 1) The objective is to establish sagebrush and bitterbrush, increase forb diversity, and establish early germinating cool season grasses that will reduce the expansion of invasive grasses and weeds on the site as well as prevent erosion to susceptible areas.
- 2) Aerial seeding implementation treatment will be monitored during contract administration to ensure contract specifications for the seeding treatment are met. A Contract Officer Representative will be at the landing site with the contractor, and a Project Inspector will be on the on-site to measure seed distribution.
- 3) There are pockets of suitable planting sites within the fire perimeter. They are not always easily to define post fire and would be impractical to delineate. Seeding of the entire area will

ensure that all suitable sites are seeded. Monitoring for shrub seeding will be conducted using photo plots and landscape monitoring shrub hoop method. Long transect lines will be walked and when a suitable area is encountered a 10 m² sized plot (1.73 meter radius circle) will be used when counting and recording shrub density. The monitoring of forb establishment is difficult, because of irregularities in plant growth and phenology, being dependent on spring weather. The timing of the site visit needs to coincide with the seasonal appearance of perennial forbs on site. The treatment will be considered successful when aerially seeded sagebrush attains a density of 1/10m² in suitable areas.

R4 Seedling Planting

- 1) Objective is to establish antelope bitterbrush and big sagebrush in suitable planting sites.
- 2) Seedlings are to be planted under Contract. Monitoring plots will be established during the planting to identify plants for spring effectiveness monitoring and for contract compliance. A 16.6 foot diameter monitoring site will be established and the number of plants will be counted, pin-flagged, and diagramed for future data collection on survival and for contract inspection.
- 3) Effectiveness will be monitored in April-June each spring. Monitoring sites will be revisited and the number of plants alive vs. dead will be counted. Conclusions for mortality will be finalized to explore ways of improving seedling plantings. Seedling establishment will be considered successful when 40% of the planted seedlings persist into the third growing season.

S4/R4 Bitterbrush Seed Caching

- 1) Objective is to establish antelope bitterbrush in suitable planting sites from hand planted seed caches.
- 2) BLM personnel will plant bitterbrush seed in caches. Monitoring sites similar to the seedling planting will be established. Each seed cache site within the monitoring plot will be GPSed for data collection the following spring. Additionally, a number of plastic monitoring markers with 16 individual grids will be established. Grids will be seed and recorded with GPS and photos.
- 3) Effectiveness will be monitored in April-June each spring. Monitoring sites will be revisited and number of newly germinating plants will be counted. Objectives are harder on this treatment because it is not known how many seed caches will sprout each spring. They will sprout over the three year period. This is climate, temperature, and moisture dependent. The seeding of bitterbrush in caches will be considered a success when 25% of seed caches germinate and seedlings establish, and persist into their second growing season.

S5/R5 Noxious Weeds

- 1) Objective is to identify all existing and new infestations of noxious weeds. New infestations will be treated and objective is to eliminate them from the treatment area. Existing noxious weeds will be treated to contain the infestation and prevent it from expanding on site.
- 2) Implementation will be self-monitored by BLM noxious weed specialists conducting the inventory and work. Species identified, treatment and GPS location would be recorded.
- 3) Effectiveness will be monitored by revisiting the treated sites 2012-2013 to evaluate mortality and inventory for additional weed populations.

S6 Soil Stabilization (other than seeding/planting)

- 1) Objective of this treatment is to reduce the amount of fine sediment that are eroded from the uplands and positioned into fish bearing streams. The structures will retain the soil on site, slowing erosion rates and allowing vegetation to recover.

- 2) Implementation Monitoring will take place to ensure that the structures are installed according to BLM specifications and in the locations where they will be most effective in reducing erosion.
- 3) Effectiveness Monitoring will include visits by BLM employees to determine if the structures are stabilizing soils and if the captured soils are revegetating.

S7 Protective Fence

- 1) Objective is to build fence to protect the rehabilitation investment from livestock grazing before seeded plants are able to withstand grazing pressure.
- 2) Implementation will be monitored by Project Inspector or Project Lead on site ensuring fence is repaired to BLM fence specifications.
- 3) Fence will be considered effective when it prevents livestock from gaining access to project area.

R9 Cultural Protection

- 1) The objective is to replace four Carsonite marker signs for the Oregon Trail.
- 2) Implementation monitoring will take place to ensure that signs are properly installed by BLM specifications in proper locations.
- 3) Signs will be considered effective when the Oregon Trail is properly marked for the public.

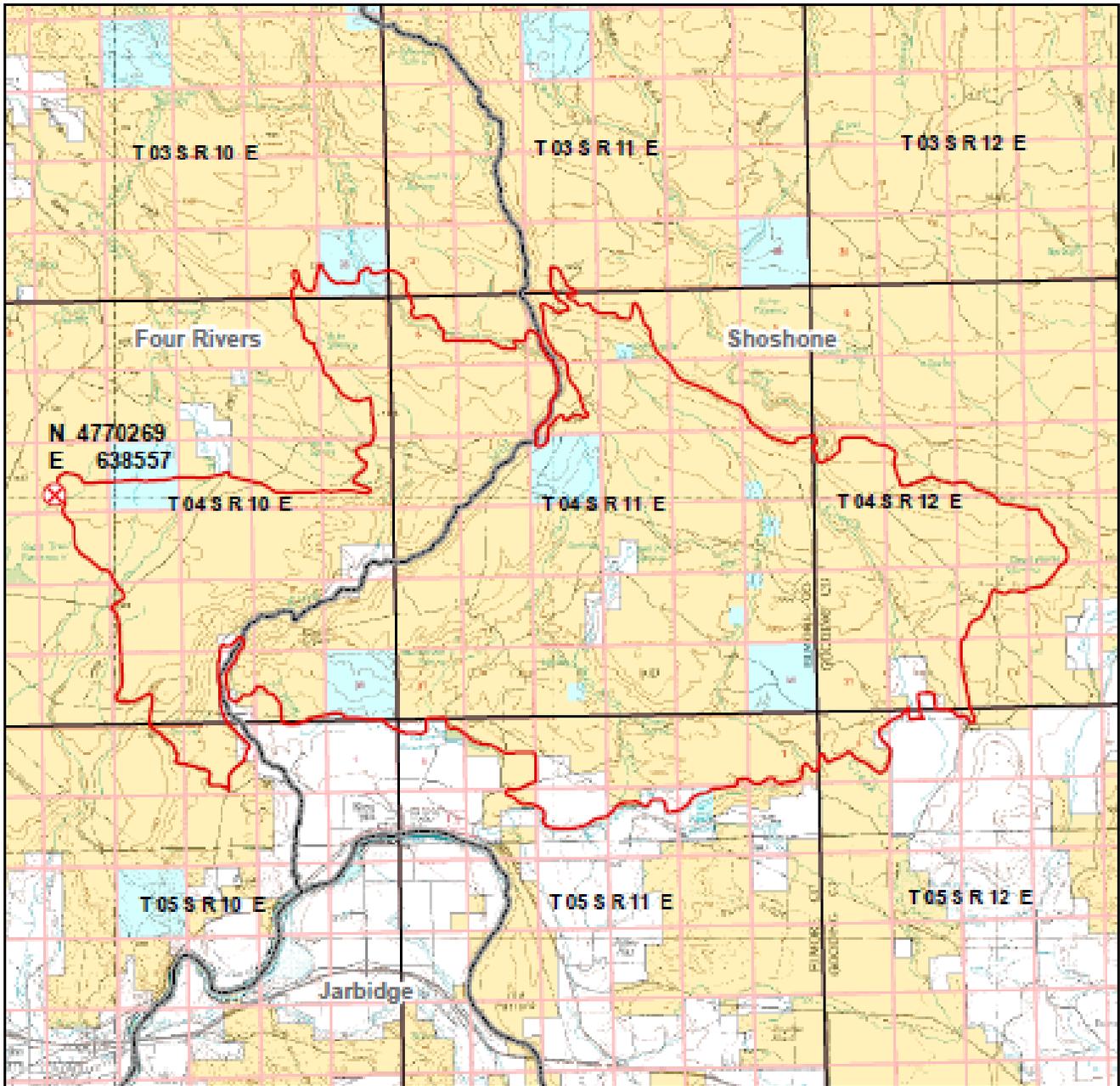
S12 Closures

- 1) Objective is to rest site from livestock grazing until monitoring data indicate that the plants could withstand grazing pressure.
- 2) Site will be visited by Field Office and Operations personnel during grazing season to ensure permittee is successful in herding animals away from treatment area.
- 3) Effectiveness will be measured by site visits and the lack of evidence of livestock use within the seeding area. Resumption of livestock grazing will be based on the following objectives:
 1. Ground seeding and aerial seeding effectiveness objectives have been met, or the treatment has been determined to be a failure and objectives are unlikely to be met.
 2. Greater than 95% of canopy gaps are ≤ 25 cm (All biomass is measured with this method).

If the evidence indicates the Monitoring Objectives are not being met, then the livestock closure period would be extended.

PART 8 - MAPS

1. Fire Perimeter
2. Allotment Map
3. Aerial Seeding and Seedling Treatment areas
4. Closure Map
5. Protective Fences and the Adjoining Pasture Fences Map



Boise District 2011 Four Rivers Field Office Wildfire : GAL7 Blair

T04S R10E S17	
BLM	10,853 BOD
	24,353 TFD
SUBTOTAL	35,206 Acres
PRIVATE	1,751 Acres
STATE	2,620 Acres
Total 39,577 Acres	

- Fire Origin
- Fire Perimeter
- Surface Management Agency**
- BLM
- PRIVATE
- STATE



Miles

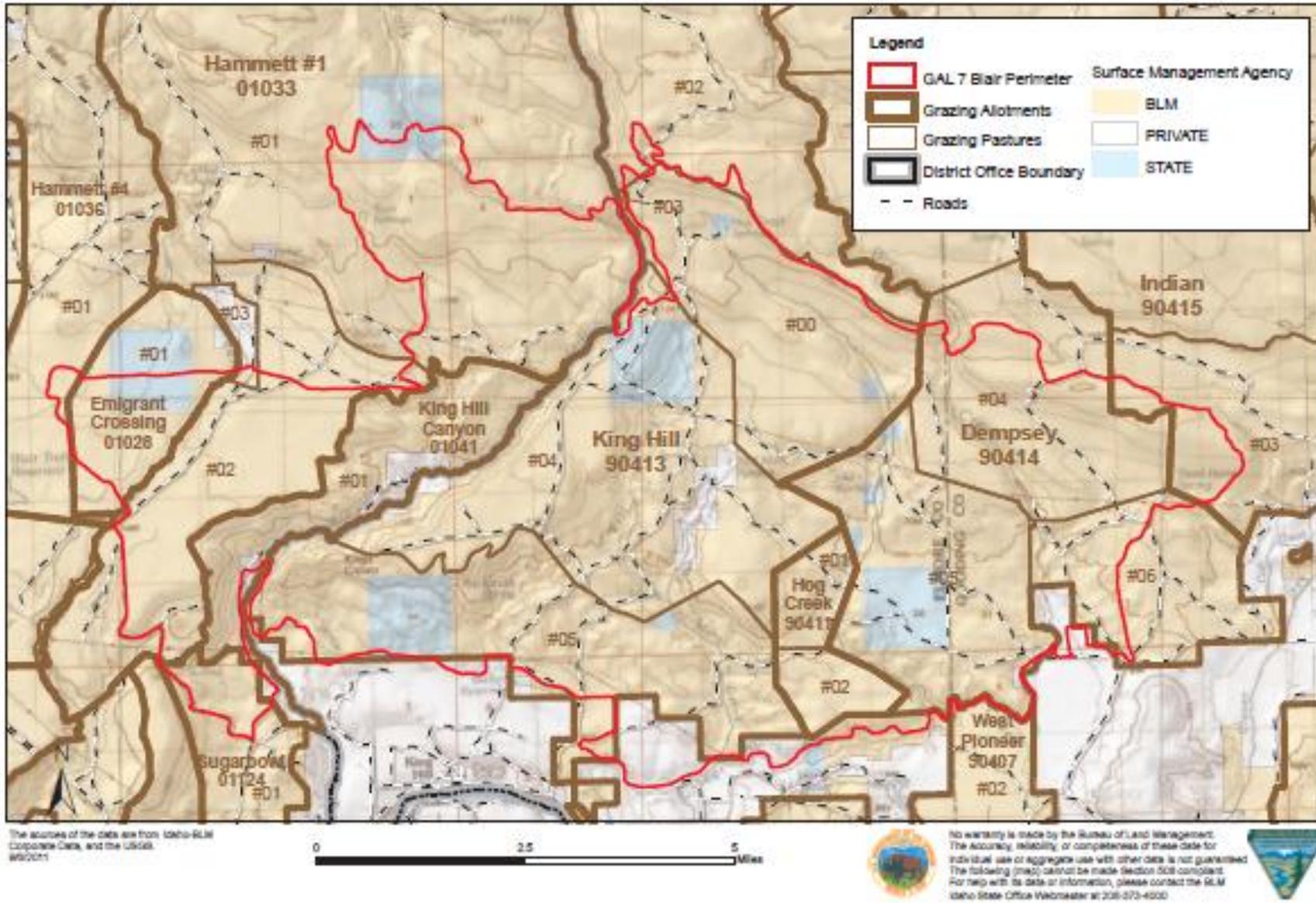
Projection: UTM Zone 11
Datum: NAD 83
Units: Meters



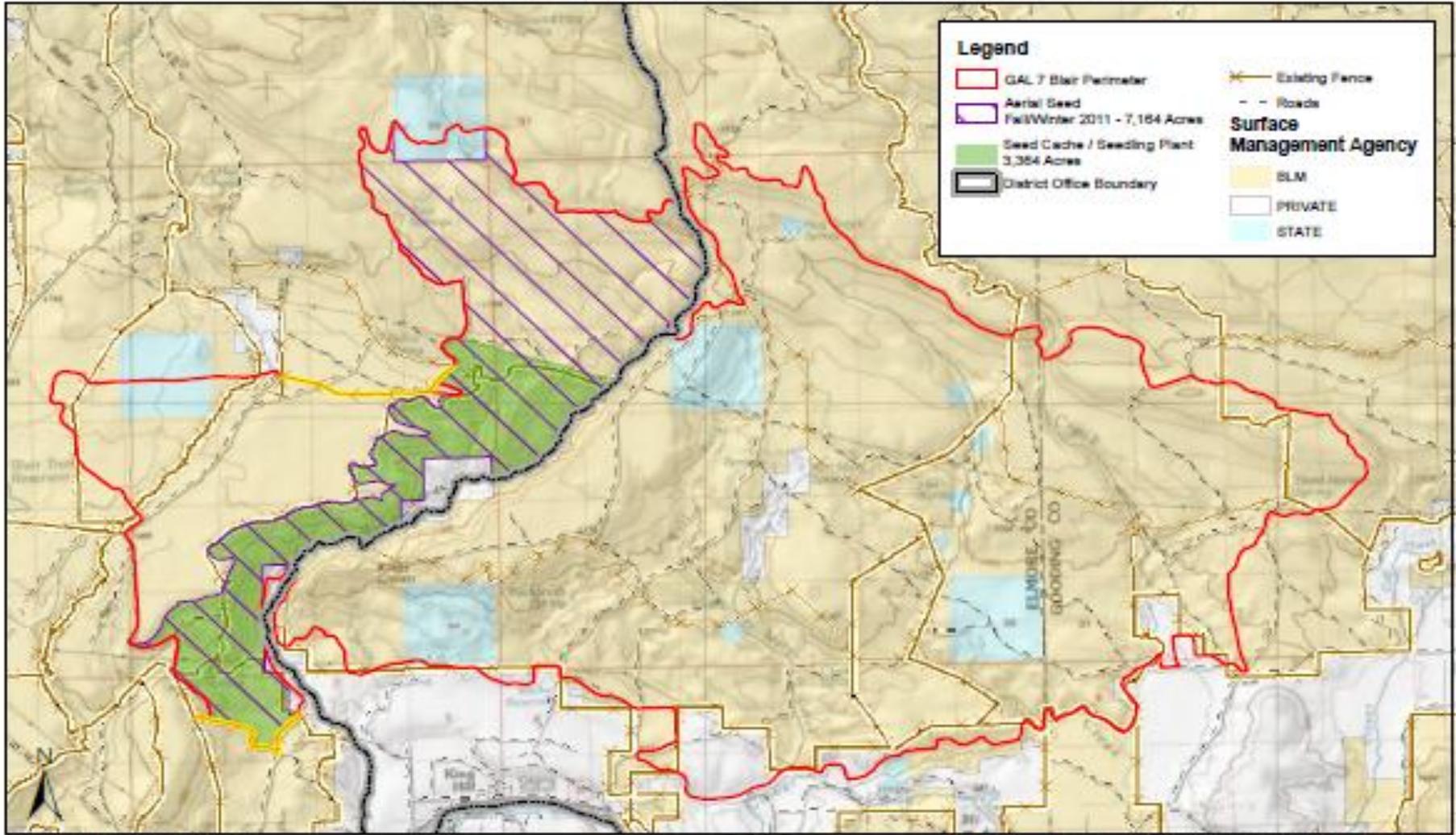
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Boise District BLM GAL7 Blair Fire ES&R Range Allotments and Pastures



Boise District BLM GAL7 Blair Fire ES&R S3 Aerial Seeding & S4 Seed Caching/Seedling Planting



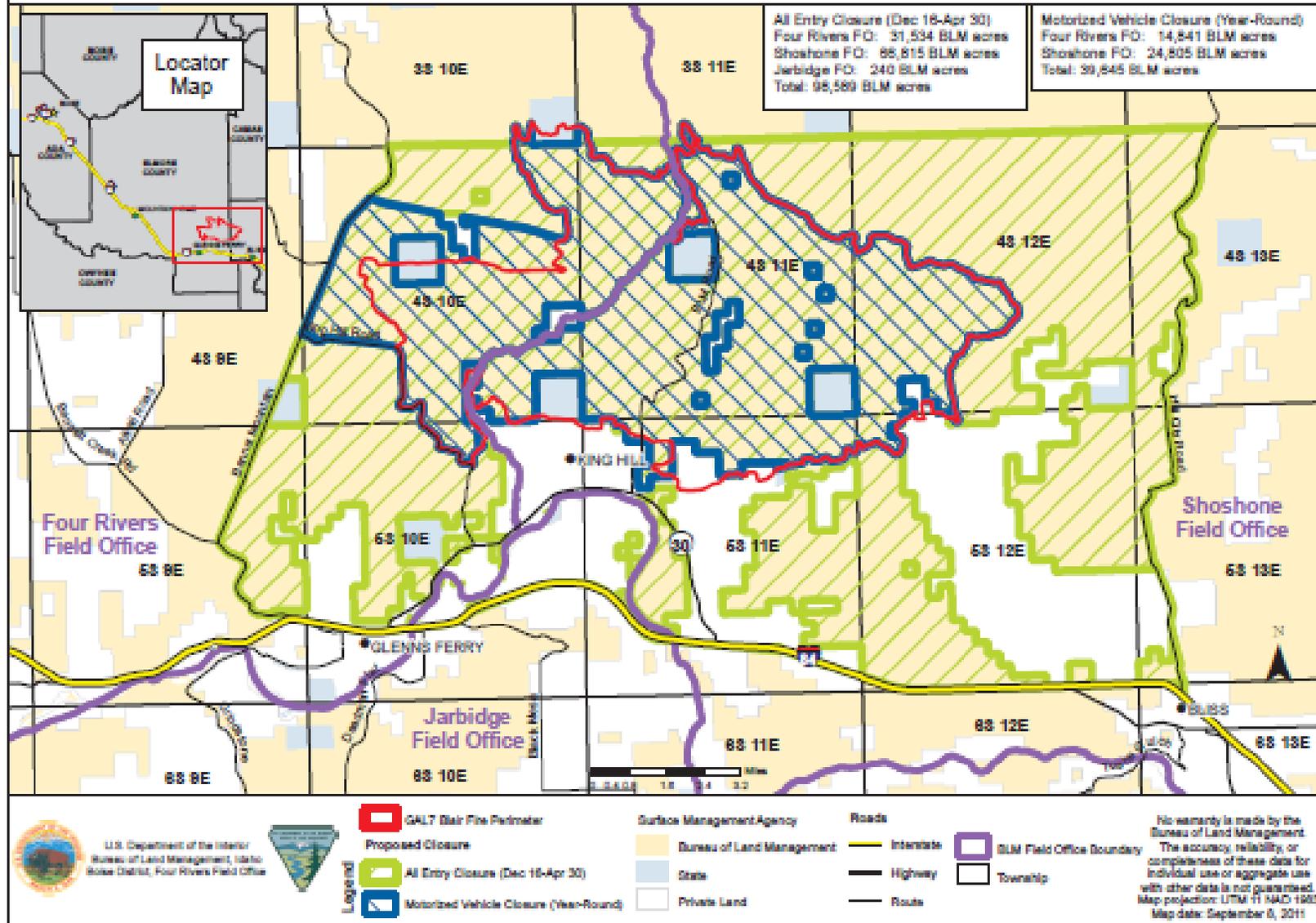
The sources of the data are from Idaho-ILM Corporate Data, and the USGS. 8/26/2011



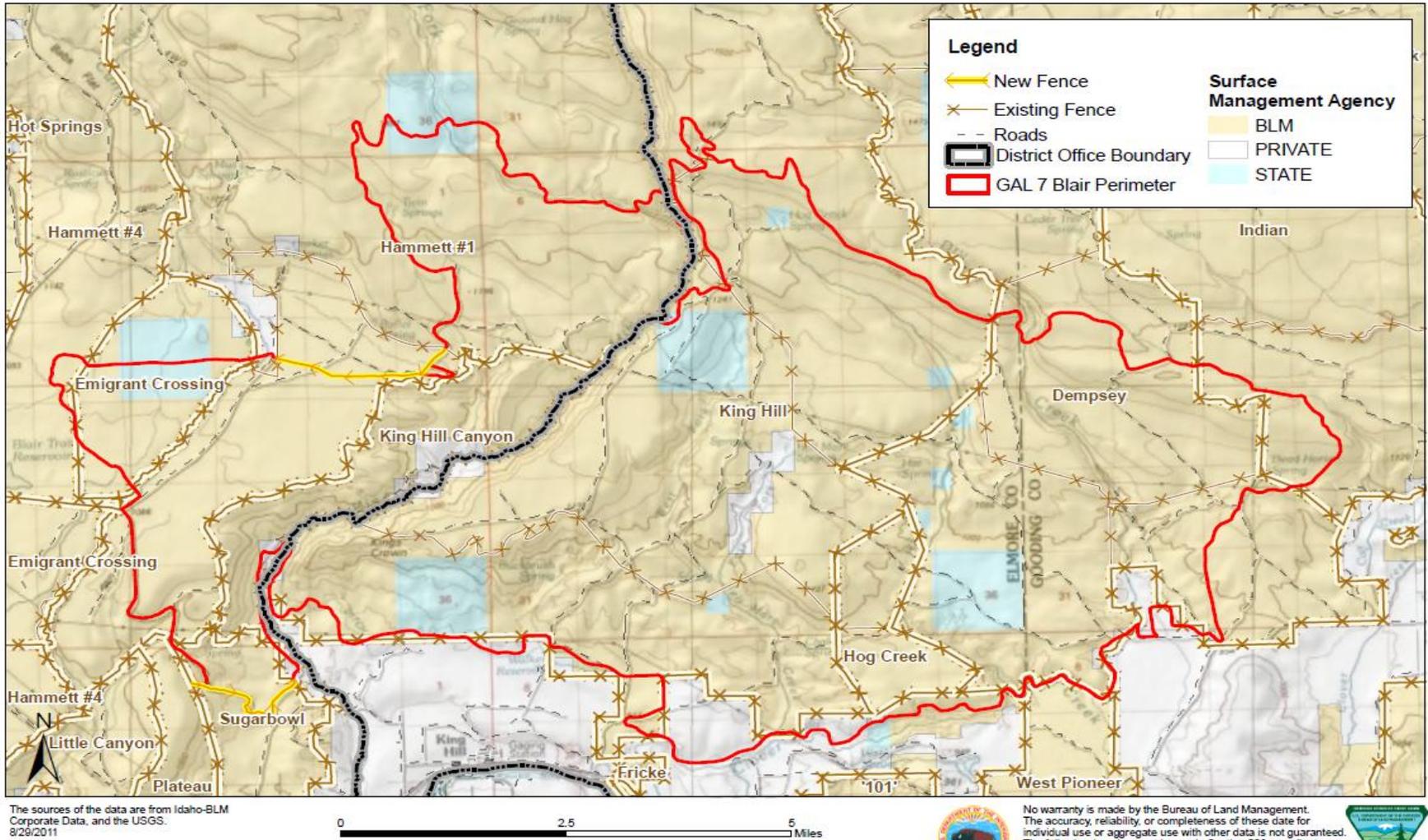
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GAL7 Blair Fire Motorized Vehicle Closure and All Entry Closure



Boise District BLM GAL7 Blair Fire ES&R S7 New Fence



PART 9 – REVIEW, APPROVALS, and PREPARERS

TEAM MEMBERS

Position	Team Member (Agency/Office)	Initial and Date
Team Leader	Michael McGee – Boise District BLM	
Operations	Cindy Fritz – Boise District BLM	
NEPA Compliance & Planning	Jon Beck – Boise District BLM	
Botanist	Kathi Kershaw – Boise District BLM	
Cultural Resources/Archeologist	Dean Shaw – Four Rivers FO BLM	
Rangeland Mgt. Specialist	Mike Barnum – Four Rivers FO BLM	
Wildlife Biologist	Michael McGee – Boise District BLM Mark Flemming - IDFG	
GIS Specialist	Dianna Sampson – Boise District BLM	
Other Technical Specialists	Rob Bennett – Boise District BLM	
Resource Advisor(s) on Fire	Al Tartar – Four Rivers FO BLM	

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/ Matthew McCoy for Terry Humphrey

9/7/2011

FIELD OFFICE MANAGER

DATE

FUNDING APPROVAL