

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

PLAN TEMPLATE 2010

MUSTANG FIRE (G5SF)

BLM Boise District Office

IDAHO STATE OFFICE

FIRE BACKGROUND INFORMATION

Fire Name	Mustang
Fire Number	G5SF
District/Field Office	Boise District Office
Admin Number	LLIDB00000
State	IDAHO
County(s)	ELKO, OWYHEE
Ignition Date/Cause	08/10/2012 Lightning
Date Contained	08/18/2012
Jurisdiction	<i>Acres</i>
USFS	12699
Private	615
BLM	3369
Total Acres	16683
Total Costs	\$291,000
Costs to LF20000ES (2822)	\$261,000
Costs to LF32000BR (2881)	\$30,000

Status of Plan Submission (check one box below)

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

PART 1 - PLAN SUMMARY

BACKGROUND INFORMATION ON FIRE.

The Mustang Fire was one of seven fires in the Bull Run Complex and burned approximately 16,684 acres, consisting of 3,369 acres BLM administered land, 12,699 acres of Forest Service administered land, and 615 acres private land. All but 35 acres of this fire occurred in northern Nevada south of the Idaho Nevada state line. Because the BLM lands in this area are adjacent and similar to the Idaho Bruneau Field Office area and isolated from other BLM lands managed by the Elko Field Office, they are managed by the Bruneau Field Office under the Bruneau Management Framework Plan. For the purpose of this ESR plan, information and proposed treatments will focus on BLM lands only. The Humbolt-Toiyabe National Forest will submit a separate plan for proposed treatments on Forest Service administered lands.

Prior to the wildfire vegetation in the area was dominated by low sagebrush with pockets of mountain big sagebrush where deeper soils exist. Antelope bitterbrush was present on rocky slopes and ridges. Understory grasses include Idaho fescue, bottlebrush squirreltail, and Sandberg's bluegrass. The fire occurred in Preliminary Priority Habitat (White Paper on Nevada BLM and USFS Preliminary Habitat Map for Sage Grouse 2012) for greater sage grouse (*Centrocercus urophasianus*), a candidate species for listing under the Endangered Species Act. This area is immediately adjacent to one of the densest concentrations of sage-grouse leks and one of the largest populations of sage-grouse in southwestern Idaho. There are two active leks within the fire's boundaries and 3 active leks within a 1 ½ mile radius of the fire perimeter. Other special status species in the area include the pygmy rabbit (*Brachylagus idahoensis*). Big game (elk, mule deer, and antelope) use this area year round in low densities. The fire burned 1,331 BLM acres or 3% of the Alzola grazing allotment and 1,970 BLM acres or 23% of the Scott Table grazing allotment.

The fire occurred within the Dissected High Lava Plateau Level IV Ecoregion of Nevada (Bryce et al. 2003). 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 Dissected High Lava Plateau Ecoregion is characterized as having both frigid and mesic Aridisol and Mollisol soils with a sagebrush/cool season grass vegetation community. The majority of the burned area is classified as either a Shallow Claypan 12-16 inch ecological site or Claypan 12-16 inch ecological site (SSURGO, 2008) characterized by a low sagebrush/Idaho fescue plant community. During a field tour of the area, resource specialists estimated eighty percent of the burn to be either a Shallow Claypan 12-16 inch ecological site or Claypan 12-16 inch ecological site and the other twenty percent to be a Loamy 12-16 inch ecological site characterized by mountain big sagebrush, Idaho fescue, and bluebunch wheatgrass. Three previous wildfires have been recorded for this area with approximately 2/3 of the current fire acreage having burnt once in the last 25 years. Cheatgrass (*Bromus tectorum*) and ventenata grass (*Ventenata dubia*) are present in the area but in low densities and restricted to roadways and livestock watering sites. Whitetop (*Cardaria draba*), black henbane

(*Hyoscyamus niger*) and Canada thistle (*Cirsium arvense*), Idaho and Nevada state listed noxious weeds, are also present in some drainage bottoms and along roadways and watering sites.

While some vegetation recovery is expected due to the number of acres burned in the moderate to low severity classes, sagebrush cover is not expected to return to pre-fire conditions for at least 30 years. The Aroga moth (*Aroga websteri*) has affected sagebrush on a large majority of this area and surrounding areas, with most shrubs showing signs of their impact. Drought in the area had already stressed sagebrush prior to the burn, leaving it extremely dry with shriveled leaves. The Aroga moth was expected to significantly thin the sagebrush density even without the fire. Therefore, the combination of fire, insect, and drought in southwest Idaho and north central Nevada has and will continue to greatly reduce the available habitat for the greater sage-grouse.

LAND USE PLAN CONSISTENCY

S3 - Aerial Seeding

Seed mixtures comprised of low sagebrush, mountain big sagebrush, and Sherman's big bluegrass would be aerial broadcast seeded. Aerial seeding of shrubs is proposed as an ES treatment to augment the development of vegetative structure, to reduce sediment movement from wind and water erosion, and to repair habitat for the greater sage-grouse and other sagebrush obligate species.

These proposed actions meet the MFP objectives to:

- Provide for protection and conservation of rare and endangered species within the planning unit;
- Maintain and/or enhance unique or special habitats to retain and/or improve their character and value for wildlife, research, and human enjoyment. Protect habitats supporting nongame wildlife with high public and/or biological interest;
- Protect and/or improve endangered species habitat within the BPU;
- Manage 520,000 acres of sage-grouse range in the BPU to improve nesting, brood rearing, and winter habitats by: improving all poor and fair big sagebrush, meadow, and riparian ecological sites to good ecological condition;
- Manage sensitive species habitat in the BPU to maintain or increase existing and potential populations;
- Manage 1,079,000 acres of pronghorn habitat in the BPU, within IMP guidelines where applicable, to provide sufficient forage, water, cover, and space;
- Manage mule deer spring, summer, and fall, and winter range, and pronghorn habitat in the BPU to obtain good ecological condition, and to provide adequate food, cover, and water.

S5 - Noxious Weeds

Inventory and treatment of new and existing populations of noxious weeds would occur within the burned area. This is in conformance with BLM policy requiring the BLM to control the spread of noxious weeds on public lands and eradicate them where possible and economically feasible.

The fire is within the Bruneau Planning Unit (BPU) of the 1983 Bruneau Management Framework Plan (MFP) which is the current land use plan for the burned area. The proposed treatment is in compliance with the following MFP objectives;

- Protect and/or improve endangered species habitat within the BPU (WL-1);
- Manage sensitive species habitat in the BPU to maintain or increase existing and potential populations (WL-2);
- Provide for protection and conservation of rare and endangered species within the planning unit (RM-5);
- Maintain and/or enhance unique or special habitats to retain and/or improve their character and value for wildlife, research, and human enjoyment. Protect habitats supporting nongame wildlife with high public and/or biological interest (WL-5);
- Maintain stability of 408,300 acres classified as moderate, high, and critical erosion hazard by reducing or minimizing wind and water erosion (WS-1).

S7 - Fence/Gate/Cattleguard

Approximately 4 miles of fence damaged in the fire would be repaired and 3 miles of new protective fence constructed to protect the treatment area from livestock use during the seeding establishment and natural recovery period. Fencing of treatment areas is consistent with BLM Handbook H 1742-1, Burned Area Emergency Stabilization and Rehabilitation, which states; “livestock will be excluded from the treatment area until monitoring results, documented in writing; show rehabilitation objectives have been met”. In case of treatment failure, other factors may need to be considered, such as natural recovery of untreated areas, and need or reason to continue closure.

See Land Use Plan Consistency section for S5 Noxious Weeds. The same objectives apply.

S12 - Closures (area, OHV, livestock)

The burned area would be closed to livestock grazing. This closure is consistent with BLM Handbook H 1742-1, Burned Area Emergency Stabilization and Rehabilitation, which states; “livestock will be excluded from the treatment area until monitoring results, documented in writing; show rehabilitation objectives have been met”. In case of treatment failure, other factors may need to be considered, such as natural recovery of untreated areas, and need or reason to continue closure.

See Land Use Plan Consistency section for S5 Noxious Weeds. The same objectives apply.

S13 - Monitoring

R5 - Noxious Weeds

Inventory and treatment of new and existing populations of noxious weeds would occur within the burned area. This is in conformance with BLM policy requiring the BLM to

control the spread of noxious weeds on public lands and eradicate them where possible and economically feasible.

See Land Use Plan Consistency section for S5 Noxious Weeds. The same objectives apply.

R7 - Fence/Gate/Cattleguard

Approximately 2 miles of fence damaged in the fire would be repaired under BAR to maintain the future integrity of livestock grazing systems. Fencing of treatment areas is consistent with BLM Handbook H 1742-1, Burned Area Emergency Stabilization and Rehabilitation, which states; “livestock will be excluded from the treatment area until monitoring results, documented in writing; show rehabilitation objectives have been met”. In case of treatment failure, other factors may need to be considered, such as natural recovery of untreated areas, and need or reason to continue closure.

See Land Use Plan Consistency section for S5 Noxious Weeds. The same objectives apply.

COST SUMMARY TABLES

Emergency Stabilization (LF20000ES)

Action/ Spec #	Planned Action	Unit (Acres, WMs, Number)	# Units	Unit Cost (If Appl.)	FY 2012	FY 2013	FY 2014	FY 2015	Totals by Spec.
S1	Planning (Project Management)				\$ 0	\$15,000	\$15,000	\$15,000	\$45,000
S2	Ground Seeding								
S3	Aerial Seeding	Acres	3,369	\$ 21.96	\$ 0	\$74,000	\$ 0	\$ 0	\$74,000
S4	Seedling Planting								
S5	Noxious Weeds	Acres	3,311	\$ 3.32	\$ 0	\$11,000	\$ 0	\$ 0	\$11,000
S6	Soil Stabilization (Other than seedling, planting)								
S7	Fence/Gate/Cattleguard	Miles	7	\$10,428.57	\$ 0	\$63,000	\$ 0	\$10,000	\$73,000
S8	Road/Trail Water Diversion								
S9	Cultural Protection (Stabilization/Patrol)								
S10	Tree Hazard Removal								
S11	Facilities								
S12	Closures (area, OHV, livestock)								
S13	Monitoring	Acres	2,723	\$ 21.30	\$ 0	\$20,000	\$19,000	\$19,000	\$58,000
S14	Other Treatments								
	TOTAL COSTS (LF20000ES)				\$0	\$183,000	\$34,000	\$44,000	\$261,000
OTHER FUND CODE TOTALS:									
	TOTAL COSTS (???)								
	TOTAL COSTS (???)								
	TOTAL COSTS (???)								

Burned Area Rehabilitation (LF32000BR)

Action/ Spec #	Planned Action	Unit (Acres, WMs, Number)	# Units	Unit Cost (If Appl.)	FY 2012	FY 2013	FY 2014	FY 2015	Totals by Spec.
R1	Planning (Project Mgmt)								
R2	Ground Seeding								
R3	Aerial Seeding								
R4	Seedling Planting								
R5	Noxious Weeds	Acres	3,311	\$ 5.44	\$ 0	\$ 0	\$10,000	\$8,000	\$18,000
R6	Soil Stabilization (Other than seedling, planting)								
R7	Fence/Gate/Cattleguard	Miles	2	\$6,000.00	\$ 0	\$12,000	\$ 0	\$ 0	\$12,000
R8	Road/Trail Water Diversion								
R9	Cultural Protection (Stabilization/Patrol)								
R10	Tree Hazard Removal								
R11	Facilities								
R12	Closures (area, OHV, livestock)								
R13	Monitoring								
R14	Additional Treatments								
	TOTAL COSTS (LF32000BR)				\$0	\$12,000	\$10,000	\$8,000	\$30,000
OTHER FUND CODE TOTALS:									
	TOTAL COSTS (???)								
	TOTAL COSTS (???)								
	TOTAL COSTS (???)								

PART 2 - POST-FIRE RECOVERY ISSUES

EMERGENCY STABILIZATION ISSUES

1 - Human Life and Safety

N/A

2 - Soil/Water Stabilization

N/A

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

The burned area is considered Preliminary Priority Habitat for the greater sage grouse in both Nevada and Idaho. This area provides critical nesting, wintering, and lekking habitat. Invasive species (cheatgrass and ventenata grass) and wildfires pose the greatest risk to this portion of their range. There are 2 active leks within the fire perimeter and 3 active leks within 1 1/2 miles of the fires' perimeter.

The sagebrush is expected to take at least 30 years to recover if left alone which, when combined with other large fires surrounding the area (e.g. 2007 Murphy Fire Complex Fires in the adjacent BLM Jarbidge Field Office) could significantly threaten the population of sage-grouse. If these areas convert to a cheatgrass dominated understory, the fire return interval might be 10 times as frequent as the historical fire patterns. Seeding sagebrush and Sherman's big bluegrass will quicken the recovery process and reduce the chance of invasive annual grass dominance. Repairing existing fence, constructing 3 miles of new temporary protective fence, and closing a portion of two burned pastures within two grazing allotments will help to assure natural recovery of native species and success of the seeding treatment.

4 - Critical Heritage Resources

N/A

5 - Invasive Plants and Weeds

Noxious weeds including whitetop, Canada thistle, and black henbane are known to occur adjacent to the fire's perimeter. Spot treatments are needed to avoid an increase in the number and vigor of these plants post-fire. Control of these weeds will aid native and seeded vegetation recovery.

BURNED AREA RECOVERY ISSUES

1 - Lands Unlikely to Recover Naturally

N/A

2 - Weed Treatments

Noxious weeds including whitetop, Canada thistle, and black henbane are known to occur adjacent to the fire's perimeter. Spot treatments are needed to avoid an increase in the

number and vigor of these plants post-fire. Control of these weeds will aid native and seeded vegetation recovery.

3 - Tree Planting

N/A

4 - Repair/Replace Fire Damage to Minor Facilities

Repair of two miles of existing fence is needed in order to maintain the integrity of future livestock grazing systems. The Nevada Department of Wildlife holds the grazing permit for the Scott Table allotment and is currently taking non-use. Non-use status is anticipated for this allotment over the next 2-3 years.

PART 3 - DESCRIPTION OF TREATMENTS

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

S3 Aerial Seeding

A. Treatment/Activity Description

Two seed mixes, 1) mountain big sagebrush and Sherman's big bluegrass and 2) low sagebrush, would be aurally broadcast seeded across the burned area during late fall or winter of 2012/2013. The mountain big sagebrush mix would be applied onto smaller areas of deeper soils found in drainage bottoms and at the toeslope of hills. Prior to the fire these areas supported higher fuel loads (big sagebrush and bitterbrush) causing higher intensity fire and more complete consumption of vegetation. Because the availability of sagebrush seed is limited in 2012, sagebrush will be applied in 100 foot wide strips(1,685 acres) with 100 foot wide spacing between strips across the entire burned area (3,369 acres). Timing of the seed application will ensure seed-to-soil contact prior to winter snow fall or precipitation. Sherman big bluegrass seed is small and should incorporate into the soil and germinate along rocks and crevices. These species are paramount to the areas ability to support viable populations of sage-grouse. 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?

The seeding of shrubs/grass would augment and quicken the replacement of those species destroyed by the fire helping to ensure desirable vegetation recovery and avoiding expansion of invasive annual grasses/noxious weeds. Sherman big bluegrass would help to fill in the interspaces between shrubs reducing cheatgrass, ventenata grass, and noxious weed competition.

C. Why is the treatment/activity reasonable, within policy, and cost effective?

The burn removed both young and mature sagebrush stands within priority sage-grouse habitat. These areas are the Bureau's highest priority for reestablishment of shrubs, grasses, and forb species. Benefits to critical resources would outweigh the cost of treatment. The treatments would quicken the restoration of suitable habitat conditions for sage-grouse.

S7 Fence/Gate/Cattleguard

A. Treatment/Activity Description

The objective of this treatment is to repair approximately 4 miles of allotment/pasture boundary fence damaged or destroyed by the fire and construct 3 miles of new temporary protective fence. Damaged wood corners and braces would be replaced with galvanized steel posts. Damaged wire would also be repaired. The protective fence would be a let down design constructed to BLM fence standards for wildlife with wildlife markers.

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 systems. Repair of damaged management fences and construction of new temporary protective fence would allow for grazing rest on seeded areas while allowing grazing to occur on the unburned portion of the Alzola grazing allotment. The grazing permit for the Scott Table grazing allotment is held by the Nevada Department of Wildlife and is currently in non-use status. Fence repair between the Alzola allotment and Scott Table allotment is covered in BAR.

C. Why is the treatment/activity reasonable, within policy, and cost effective?

This treatment is reasonable and cost effective because it would utilize existing fences and gates to the greatest extent possible, while allowing unburned areas to be available to grazing. Damaged wood stretch points and corners would be replaced with galvanized steel pipe thus increasing the longevity of the structures and resistance to future wildfire damages.

S12 Closures (area, OHV, livestock)

A. Treatment/Activity Description

The southern half of the Last Chance pasture of the Alzola grazing allotment (3,154 BLM acres) would be closed to livestock grazing for 2 growing seasons or until objectives to resume grazing are met. Livestock closure would be achieved with 4 miles of existing fence repair, 3 miles of new temporary protective fence, and a grazing decision to temporarily close the southern portion of the Last Chance pasture. Nevada Department of Wildlife (NDOW) owns the base property to which the grazing preference for Scott Table allotment is attached. At present, they do not have a lessee for the base property and, consequently, BLM has not issued a grazing permit for Scott Table. For 2013 and 2014, NDOW is not planning to lease the base property for the Scott Table allotment grazing permit. (Pers. Com. Alan Jenne – NDOW).”

B. How does the treatment relate to damage or changes caused by the fire?

The purpose of this treatment is to protect the newly seeded plants and rest the burned area from livestock grazing providing the opportunity for recovery of on-site vegetation. Establishment of new plants and recovery of on-site perennial plants would help to inhibit 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 (see S7 and R7 for cost of fence repair and new temporary protective fence) .

S13 Monitoring

A. Treatment/Activity Description

See Monitoring Section of this plan.

B. How does the treatment relate to damage or changes caused by the fire?

C. Why is the treatment/activity reasonable, within policy, and cost effective?

Issue 5 - Invasive Plants and Weeds

S5 Noxious Weeds

A. Treatment/Activity Description

Whitetop, black henbane, Canada thistle, cheatgrass, and ventenata grass are known to occur within and adjacent to the burned area boundary. These noxious weeds and invasive annual grasses have a moderate to high potential for establishment in the burned area. Noxious weed inventory and spot herbicide treatment would occur the first year following the fire within the burned area under ES. Weeds would be treated with the BLM-approved chemicals in accordance with the Boise District Record of Decision for the Noxious Weed EA and the Record of Decision for Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States, approved September 29, 2007 (Vegetation Treatment EIS). Appendix B of the Record of Decision for the Vegetation Treatments EIS includes a list of standard operating procedures that would be used for vegetation treatments using herbicides.

B. How does the treatment relate to damage or changes caused by the fire?

Disturbance associated with the fire and fire suppression, including use of heavy equipment to create dozer lines, increases the potential for invasion and spread of noxious weeds due to vegetation removal and soil surface disturbance.

C. Why is the treatment/activity reasonable, within policy, and cost effective?

Inventory and treatment of new noxious weed populations is more cost-effective than waiting until the population has had opportunity to establish and spread. Field work would be combined with other noxious weed treatments for cost efficiency.

Issue 2 - Weed Treatments

R5 Noxious Weeds

A. Treatment/Activity Description

Whitetop, black henbane, Canada thistle, cheatgrass, and ventenata grass are known to occur either within or adjacent to the burned area boundary. These and other noxious weeds have a moderate to high potential for establishment in the burned area. Weed inventory and

spot herbicide treatment would occur in the second and third years following the fire under BAR. Noxious weeds would be treated with the BLM-approved chemicals in accordance with the Boise District Record of Decision for the Noxious Weed EA and Vegetation Treatment EIS (See Treatment S5 above).

B. How does the treatment relate to damage or changes caused by the fire?

Disturbance associated with the fire and fire suppression, including use of heavy equipment to create dozer lines, increases the potential for invasion and spread of noxious weeds due to vegetation removal and soil surface disturbance.

C. Why is the treatment/activity reasonable, within policy, and cost effective?

Inventory and treatment of new noxious weed populations is more cost-effective than waiting until the population has had opportunity to establish and spread. Field work would be combined with other noxious weed treatments for cost efficiency.

Issue 4 - Repair/Replace Fire Damage to Minor Facilities

R7 Fence/Gate/Cattleguard

A. Treatment/Activity Description

The objective of this treatment is to repair approximately 2 miles of allotment boundary fence damaged or destroyed by the fire. Damaged wood corners and braces would be replaced with galvanized steel posts. Damaged wire would also be repaired.

The existing fence between the Last Chance pasture of the Alzola grazing allotment and the Scott Table grazing allotment would need repair in order to maintain the integrity of future grazing systems. Nevada Department of Wildlife (NDOW) owns the base property to which the grazing preference for Scott Table allotment is attached. At present, they do not have a lessee for the base property and, consequently, BLM has not issued a grazing permit for Scott Table. For 2013 and 2014, NDOW is not planning to lease the base property for the Scott Table allotment grazing permit. (Pers. Com. Alan Jenne – NDOW).”

B. How does the treatment relate to damage or changes caused by the fire?

The wildfire damaged fences associated with livestock management of the affected allotments. Reconstruction and/or repair of the management fence damaged by the fire would maintain the future integrity of livestock grazing systems.

C. Why is the treatment/activity reasonable, within policy, and cost effective?

This treatment is reasonable and cost effective because it would utilize existing fence materials and gates to the greatest extent possible. Damaged wood stretch points and corners would be replaced with galvanized steel pipe thus increasing the longevity of the

structures and resistance to future wildfire damages.

PART 4 DETAILED TREATMENT COST TABLE

PART 5 - SEED LISTS

DRILL SEED

Species	Scientific Name	% PLS	PLS Seeds / sq. ft.	PLS Seeds / ac.	Seeds / lb (bulk)	Total Seeds / Acre (Bulk)	Drill Seedings (Acre)	Lbs / Acre	Total Lbs.	Cost / Lb	Total Cost
TOTALS:			0	0	0	0		0.0		\$ 0.00	\$ 0.00

AERIAL SEED

Species	Scientific Name	% PLS	PLS Seeds / sq. ft.	PLS Seeds / ac.	Seeds / lb (bulk)	Total Seeds / Acre (Bulk)	Aerial Seedings (Acre)	Lbs / Acre	Total Lbs.	Cost / Lb	Total Cost
Mountain Big Sagebrush, Mountain	Artemisia tridentata vaseyana	16.0%	7.25	315,810	1,973,117	1,973,813	700.0	0.2	112.0	\$ 18.00	\$12,960.00
Big Bluegrass, Sherman	Poa secunda ssp. ampla	63.0%	30.28	1,318,997	1,046,960	2,093,646	700.0	1.3	882.0	\$ 12.00	\$16,800.00
Low Sagebrush	Artemisia arbuscula	16.0%	1.79	77,972	972,000	487,328	985.0	0.1	78.8	\$ 20.00	\$20,000.00
TOTALS:			39.32	1,712,779	3,992,077	4,554,786		1.5		\$ 50.00	\$49,760.00

SEEDLINGS

Seedling Species	Scientific Name	Acres of Seedlings planted.	# of Seedlings per Acre	Total # of Seedlings	Cost / Seedling	Total Cost
TOTALS:			0.0	0	0	\$ 0.00

PART 6 - 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 plants in the seed mix are adapted to the soils and precipitation zones within the project area and have a high chance for success of becoming established.

2. Is seed or seedlings of native plants available in sufficient quantity for the proposed project?

Yes No Rationale:

The selected species are commonly used and almost always readily 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 ensured to be of high quality and free of noxious weeds. Providing habitat for special status species, including sage grouse, is one of the highest priorities in the Bruneau MFP and for BLM in general.

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:

These species have been used nearby successfully establishing 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:

Current permitted livestock use is conducive to maintenance of these species. The proposed fence repair and new protective fence will allow the BLM to manage livestock use until seeded plants are ready to withstand grazing pressure.

B. Proposed Non-native Plants in Seed Mixtures (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:

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:

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

Yes No Rationale:

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

Non-native Plants	Native Plants
	Big Bluegrass, Sherman (<i>Poa secunda</i> ssp. <i>ampla</i>)
	Low Sagebrush (<i>Artemisia arbuscula</i>)
	Mountain Big Sagebrush, Mountain (<i>Artemisia tridentata vaseyana</i>)

PART 7 - COST-RISK ANALYSIS

A. Probability of Treatments Successfully Meeting Objectives

Action/ Spec #	Planned ES Action (LF2000ES)	Unit (acres, WMs, Number)	# Units	Total Cost	% Probability of Success
S3	Aerial Seeding	Acres	3369	\$74,000.00	80%
S5	Noxious Weeds	Acres	3311	\$11,000.00	80%
S7	Fence/Gate/Cattleguard	Miles	7	\$73,000.00	100%
S13	Monitoring	Acres	2723	\$58,000.00	100%
				\$216,000.00	

Action/ Spec #	Planned BAR Action (LF3200BR)	Unit (acres, WMs, Number)	# Units	Total Cost	% Probability of Success
R5	Noxious Weeds	Acres	3311	\$18,000.00	80%
R7	Fence/Gate/Cattleguard	Miles	2	\$12,000.00	100%
				\$30,000.00	

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 potential loss of sage-grouse habitat. Treatment of the upland vegetation was designed to minimize impact to natural resources. 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:

Failure to act quickly will result in the loss of the first year treatment window, and the area would likely experience an increase in invasive annual grasses and noxious weeds. The remaining stands of native shrubs surrounding the burn will take a decade or more to naturally spread its seed and establish new plants within the burned area. Without swift action to revegetate desirable shrubs and grass some areas within the burn perimeter would experience annual grass domination, giving the area as a whole an increased risk of future wildfire. This area is identified as priority habitat for sage-grouse and therefore speedy replacement of the sagebrush is essential.

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:

In an area occupied by a shrub dominated plant community prior to the wildfire, the probability of success is high when seeding occurs within the first fall/winter season. Seeded species are able to establish in the ash mound areas of burned shrubs where there is little to no competition from annual grasses and other weeds. The area is in priority sage-grouse habitat and costs associated with restoring this area back to suitable habitat are reasonable and acceptable.

No Action Yes No Rationale for Answer:

There would be no costs associated with the No Action, but no benefits would be realized, and further degradation of ecosystem components would occur.

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

Alternative(s)

No Action

Comments:

The sagebrush seeding will increase shrub cover helping to restore the area back to suitable habitat for sage grouse. The cost/risk is reasonable considering the benefits to the long-term health of the ecosystem and important habitat for sage-grouse. Broadcast seeding is the most cost effective method for reestablishing sagebrush on a landscape scale. Although establishment success is variable, the benefit of restoring habitat for sage-brush dependent species and the other intrinsic benefits provided by rehabilitated healthy shrub steppe communities is well worth the risk.

Since fire is a natural component within most sagebrush steppe communities, these areas will undoubtedly reburn in the future. However, a rehabilitated sagebrush steppe community with its associated discontinuous fuels provided by the existing healthy stands of dominant Idaho fescue would be expected to result in a fairly long fire free interval. Accordingly, a future fire to this area would be expected to be spotty resulting in unburned islands of sagebrush as was experienced in this fire.

C. Risk of Resource Value Loss or Damage

No Action - Treatments not Implemented

Resource Value	N/A	None	Low	Med	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

Resource Value	N/A	None	Low	Med	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 8 - MONITORING PLAN

S3 - Aerial Seeding

Identify the objective of the treatment:

The objective is to establish sagebrush and an early germinating cool season grass to promote the recovery of ecosystem health, restore sagebrush structure and function, reduce the expansion of invasive grasses and noxious weeds, and prevent erosion in susceptible areas from high fire severity. The burned area would be closed to promote recovery of burned vegetation and the establishment of seeded species until monitoring results, documented in writing, show that ES&BAR objective have been met and are predicted to be sustainable, as specified in the BLM ES&BAR Handbook (H-1732-1) and consistent with the 2005 Boise District Office and Jarbidge Field Office Normal Fire Emergency Stabilization and Rehabilitation Plan (#ID-090-2004-050).

Describe how implementation will be monitored:

Aerial seeding treatment implementation will be monitored during contract administration to ensure contract specifications are met. A Contract Officer Representative (COR) will be at the landing site with the contractor, and a Project Inspector (PI) will be on-site to measure seed distribution.

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

- Site will be monitored by District Operations ESR monitoring staff annually for three consecutive years following fire containment.
- Monitoring for shrub seeding will be conducted using landscape monitoring shrub hoop method. Long transect lines will be traversed and data will be collected within a 10 m² plot (1.73 meter radius circle) when a suitable area is encountered, this data will be used in along with photo plots, and site observations.
- The shrub seeding treatment will be considered successful and objectives met when aerially seeded sagebrush attain a density of 1 per 10m² in suitable areas.
- The monitoring of grass establishment is difficult, because of irregularities in suitable sites for aerially seeded grass to establish. Variables affecting grass establishment include; recovering existing native vegetation, severity of burn, and natural cover for seeded grasses. Grass monitoring will occur in sites where there is a high likelihood for grass seeding establishment as these would be the sites that necessitated a grass seeding treatment.
- The grass seeding treatment will be considered successful and objectives met when seeded grasses attain an average density of 1 plant/m² in suitable areas and 80% of the canopy gaps are <50cm.

An evaluation of collected monitoring data and qualitative assessments by ESR Monitoring staff and Field Office staff will be completed. Operations Monitoring Staff will begin

compiling monitoring data in early winter each year, documenting as-built treatments, site precipitation, etc. Ground data collection will occur April/July of each year and ESR Monitoring Report completed by September of each year for three years. A final report will be completed on the third year after fire containment.

S5 - Noxious Weeds

Identify the objective of the treatment:

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.

Describe how implementation will be monitored:

Implementation will be self-monitored by BLM noxious weed specialists conducting the inventory and work. Species identified, treatment and GPS location would be recorded.

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

Effectiveness will be monitored by revisiting the treated sites 2013-2014 to evaluate mortality and inventory for additional weed populations.

S7 - Fence/Gate/Cattleguard

Identify the objective of the treatment:

The objective of this treatment is to repair or replace approximately 4 miles of allotment boundary fence damaged by the fire and construct 3 miles of new temporary protective fence to allow for protection of seeded plants from grazing and recovery of existing vegetation. Damaged wood corners and braces would be replaced with galvanized steel posts. Damaged wire would also be repaired.

Describe how implementation will be monitored:

Implementation is monitored through contract administration. Any changes from the planned implementation would be documented in the project file.

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

Repair of existing fence and new fence construction would be monitored through contract administration and documented in the project file. Work would be completed within the first year following the fire.

S12 - Closures (area, OHV, livestock)

Identify the objective of the treatment:

Exclusion of livestock is critical for the recovery of burned vegetation. The burned area would be closed to promote recovery of burned vegetation until monitoring results, documented in writing, show that ES&BAR objective have been met, as specified in the BLM ES&BAR Handbook (H-1732-1) and consistent with the 2005 Boise District Office and Jarbidge Field Office Normal Fire Emergency Stabilization and Rehabilitation Plan (#ID-090-2004-050).

Describe how implementation will be monitored:

Site would be visited by Field Office and Operations personnel during grazing season to ensure the method of closure (allotment or pasture closures, protective fences, water sources, and/or mineral/salt placement) is functioning to keep livestock from treatment areas.

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

1. The aerial seed treatment area and natural recovery areas would be considered recovered and available for grazing when:

- The amount of bare mineral soil (lacking cover of plants, litter, or biological soil crusts) is within 10% of what would be expected for early seral stages of the ecological sites found within the treated areas, and greater than 95% of canopy gaps are less than 50cm.
- 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 not easily pulled up by livestock. Monitoring methods will include line-point, gap analysis, photo plots, and site observations.

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 early seral stages of the ecological sites found within the burned area. 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:

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

- An evaluation of collected monitoring data would be completed documenting that

reintroducing grazing to the area would not cause a downward trend in vegetation recovery.
2. Effectiveness will be determined by amount of disturbance observed in the area. If disturbance continues in area, additional closure actions will be taken to deter any further disturbance

S13 - Monitoring

Identify the objective of the treatment:

See individual treatments above

Describe how implementation will be monitored:

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

R5 - Noxious Weeds

Identify the objective of the treatment:

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.

Describe how implementation will be monitored:

Implementation will be self-monitored by BLM noxious weed specialists conducting the inventory and work. Species identified, treatment and GPS location would be recorded.

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

Effectiveness will be monitored by revisiting the treated sites 2013-2014 to evaluate mortality and inventory for additional weed populations.

R7 - Fence/Gate/Cattleguard

Identify the objective of the treatment:

The objective of this treatment is to repair or replace approximately 2 miles of allotment boundary fence damaged by the fire. Damaged wood corners and braces would be replaced with galvanized steel posts. Damaged wire would also be repaired.

Describe how implementation will be monitored:

Implementation is monitored through contract administration. Any changes from the planned

implementation would be documented in the project file.

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

Repair of existing fence would be monitored through contract administration and documented in the project file. Work would be completed within the second or third year following the fire.

PART 9 - MAPS

1. - G5SF_Mustang
2. - A Plan Map Allotments and Sage-grouse
3. - A Plan Map S3 Broadcast Seeding
4. - A Plan Map S5 R5 Noxious Weeds
5. - A Plan Map S7 R7 New and Repair Fence

PART 10 - REVIEW, APPROVALS, and PREPARERS

TEAM MEMBERS

Position	Team Member (Agency/Office)	Initial	Date
Team Leader	Sarah Heide (BLM Boise District)	Initialed	
Rangeland Mgt. Specialist	Jon Haupt (BLM Bruneau Field Office)		
Wildlife Biologist	Bruce Schoeberl (BLM Bruneau Field Office)		
Ecologist	Kavi Koleini (BLM Bruneau Field Office)		
GIS Specialist	Alex Webb (BLM Boise District)		
Operations	Rob Bennett (BLM Boise District)		

PLAN APPROVAL

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

/s/ Arnold L. Pike

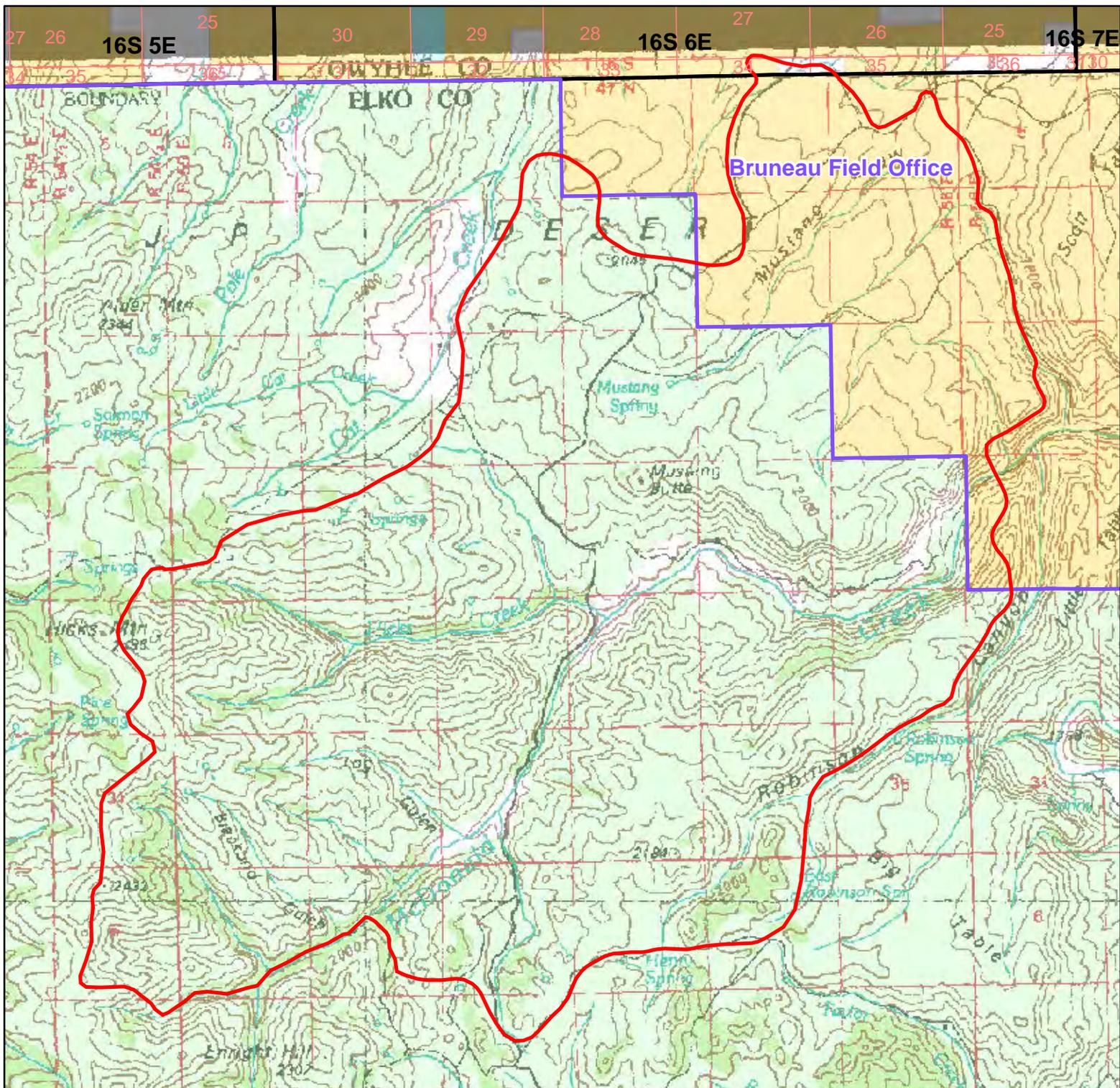
8/19/2012

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.



Total acres: 19,829
 BLM 3,370 acres
 PRIVATE 554 acres
 USFS 15,905 acres

Boise District 2012 Bruneau Field Office Fire: G5SF Mustang

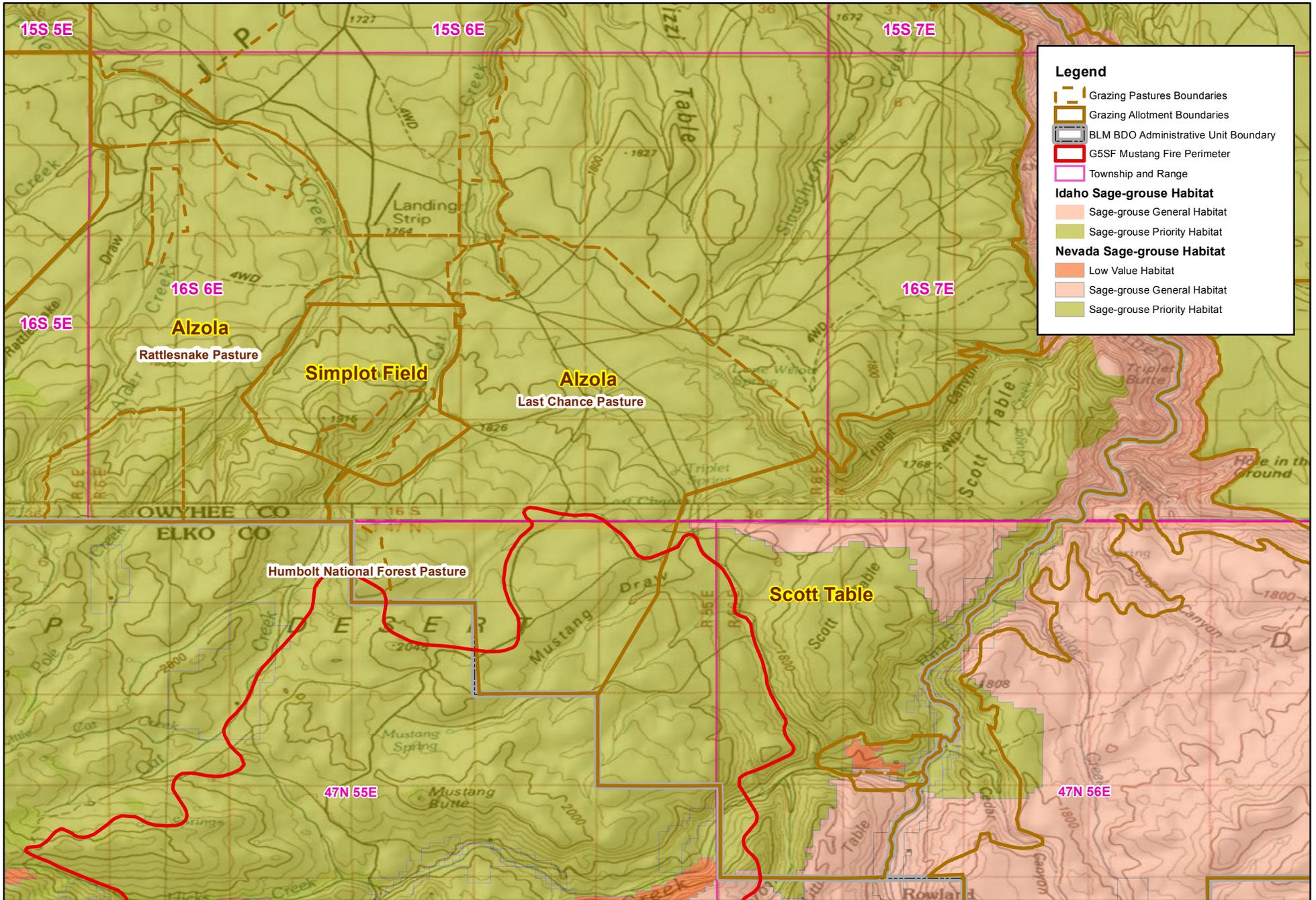
-  Fire Perimeter
-  BLM Field Office
-  Township
-  Section
-  BLM
-  Private
-  State
-  USFS

No warranty is made by the Bureau of Land Management. The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.
 Map projection: UTM 11, NAD 1983, meters



Map Date: August 28, 2012

Boise District BLM G5SF Mustang Fire ES&R Allotments and Sage-grouse



Legend

- Grazing Pastures Boundaries
- Grazing Allotment Boundaries
- BLM BDO Administrative Unit Boundary
- G5SF Mustang Fire Perimeter
- Township and Range

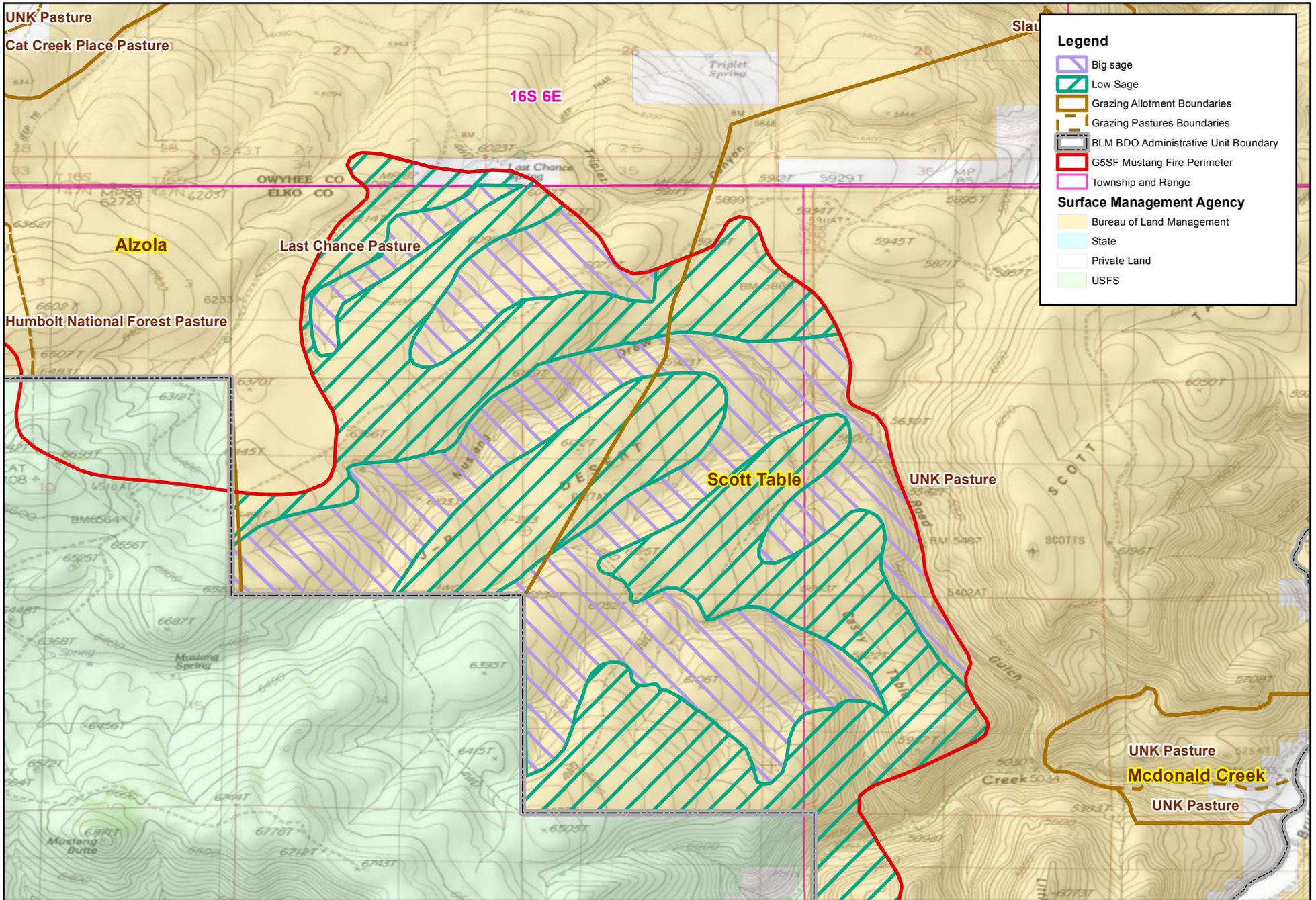
Idaho Sage-grouse Habitat

- Sage-grouse General Habitat
- Sage-grouse Priority Habitat

Nevada Sage-grouse Habitat

- Low Value Habitat
- Sage-grouse General Habitat
- Sage-grouse Priority Habitat

Boise District BLM G5SF Mustang Fire ES&R S3 Broadcast Seeding



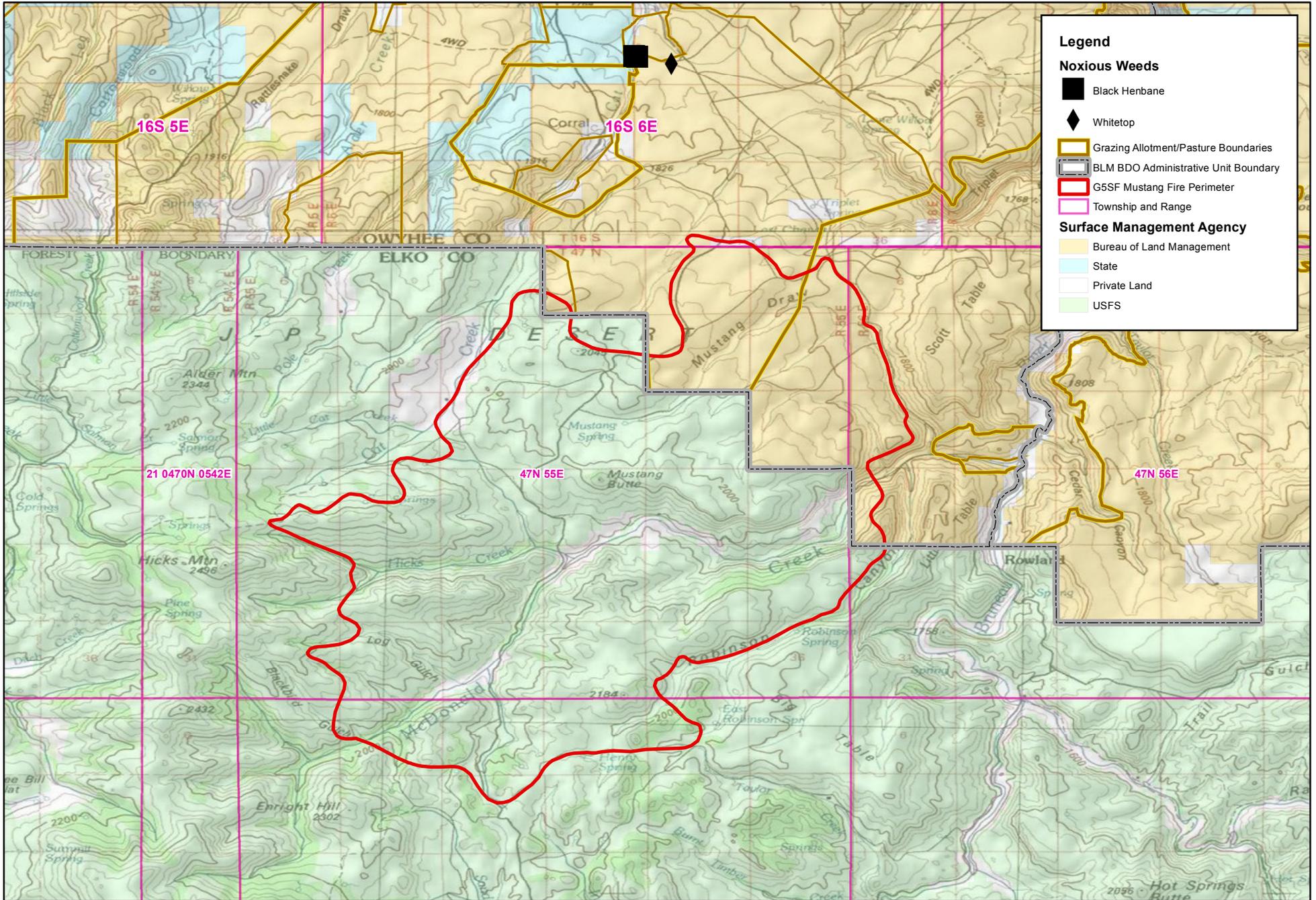
Legend

- Big Sage
- Low Sage
- Grazing Allotment Boundaries
- Grazing Pastures Boundaries
- BLM BDO Administrative Unit Boundary
- G5SF Mustang Fire Perimeter
- Township and Range

Surface Management Agency

- Bureau of Land Management
- State
- Private Land
- USFS

Boise District BLM G5SF Mustang Fire ES&R S5/R5 Noxious Weeds



Legend

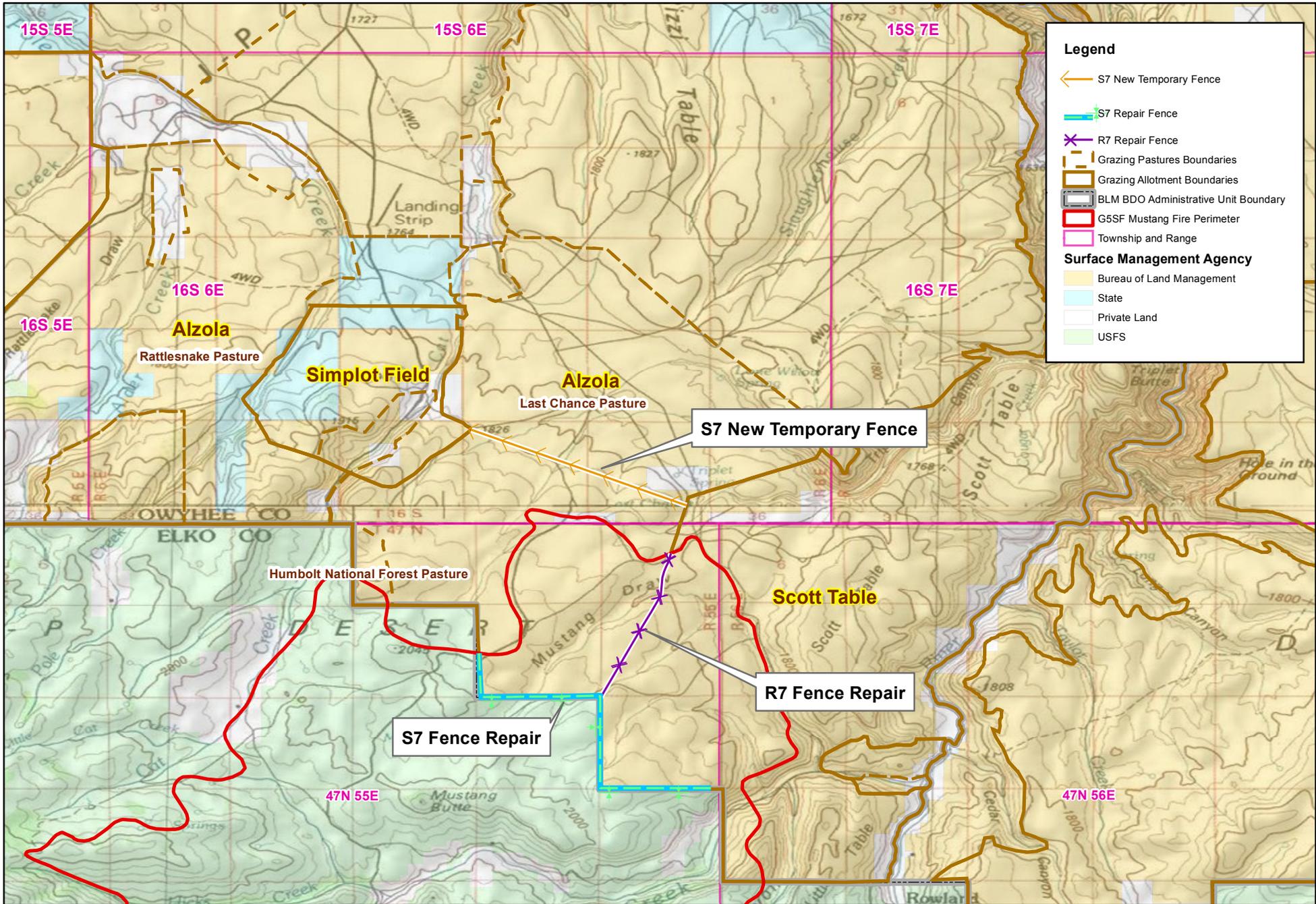
Noxious Weeds

- Black Henbane
- Whitetop

Surface Management Agency

- Grazing Allotment/Pasture Boundaries
- BLM BDO Administrative Unit Boundary
- G5SF Mustang Fire Perimeter
- Township and Range
- Bureau of Land Management
- State
- Private Land
- USFS

**Boise District BLM
G5SF Mustang Fire ES&R
S7 New Temporary and Repair Fence and R7 Repair Fence**



Legend

- S7 New Temporary Fence
- S7 Repair Fence
- R7 Repair Fence
- Grazing Pastures Boundaries
- Grazing Allotment Boundaries
- BLM BDO Administrative Unit Boundary
- G5SF Mustang Fire Perimeter
- Township and Range

Surface Management Agency

- Bureau of Land Management
- State
- Private Land
- USFS

