BLM IDAHO POST-FIRE RECOVERY PLAN
EMERGENCY STABILIZATION AND BURNED AREA REHABILITATION
2015 PLAN

J169 MANN

BLM/BOISE DISTRICT/FOUR RIVERS FIELD OFFICE
IDAHO STATE OFFICE

FIRE BACKGROUND INFORMATION

Fire Name	MANN
Fire Number	J169
District/Field Office	Boise District/Four Rivers Field Office
Admin Number	LLIDB01000
State	Idaho
County(s)	Washington
Ignition Date/Cause	August 18, 2015 (Human)
Date Contained	August 19, 2015

Jurisdiction	**Acres**
BLM	663
Private	667
TOTAL	**1,330**

Total Plan Acres	663
Total Costs	$144,000
Costs to LF20000ES (2822)	$24,000
Costs to LF32000BR (2881)	$120,000

Status of Plan Submission (check one box below)

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

PART 1 - PLAN SUMMARY

BACKGROUND INFORMATION ON THE FIRE

The J169 MANN Fire burned federal (663-acres), and private (667-acres) lands northeast of Weiser, Idaho. The fire started as an accidental ignition which occurred on private property when the landowner struck rocks while mowing his property perimeter, causing sparks which ignited the dry grass. The fire spread from the point of ignition to the southeast rapidly due to prevailing winds, and burned a total of 1,330-acres (663 federal acres) before being contained. The north end of the fire closest to the fire's origin burned intensely due to ample fuel, high temperatures, and high winds. However, much of this portion of the fire occurred on privately owned lands. The southern end of the fire burned during the evening hours with less intensity, leaving a few unburned islands of vegetation.

BLM Boise District fire history records indicate the area burned by the Mann J169 Fire has been previously burned one time in two separate areas. The prior fires that occurred were the 1989 Mann's Creek Fire and 1992 Lower Mann's Fire.

The 2015 Mann fire burned 154 acres, or approximately 45% of the Rebecca Sand Hill Research Natural Area (RNA), an Area of Critical Environmental Concern (ACEC) established in 1987 primarily to protect Mulfords' milkvetch (*Astragalus mulfordiae*) a BLM Type 2 sensitive plant species. Aaseae's Onion (*Allium aasea*), another BLM Type 2 plant species is also present within the RNA. Mulford's milkvetch is endemic to southwest Idaho and southeastern Oregon while Aaseae's Onion is endemic to southwestern Idaho. Both plants are primarily restricted to sandy, highly erodible soils. Vegetation in the RNA and the remainder of the burned area is sagebrush steppe consisting of Xeric Big Sagebrush (*Artemisia tridentata ssp. xericensis*), antelope bitterbrush (*Purshia tridentata*), and a mixture of annual and perennial forbs and grasses, including but not limited to yarrow, various buckwheat species (*Eriogonum sp.*), needlegrass (*Hesperostipa comata*), and cheatgrass (*Bromus tectorum*). No riparian areas or wetlands were affected by the fire.

Two populations of southern Idaho ground squirrel, an ESA candidate species, occur within the burned area and the burned area itself (plus adjacent lands) also provided critical wintering habitat for mule deer.

The entire fire area occurs within Great sage-grouse (a Candidate species for ESA listing) habitat. The burned area has been classified as a General Sage Grouse Habitat Management Area (GHMA -formerly Preliminary General Habitat PGH) as identified in the Greater Sage-grouse Environmental Impact Statement (EIS) for Southern Idaho and Northwestern Montana (Table 1). Some of the burned area has also been classified in the past as habitat type R1 – Perennial grasslands with high restoration potential and R2 – Annual grass dominated areas with low restoration potential (Table 1). The burned area is not within sage-grouse focal area habitat (as established by the Fire and Invasives Assessment Team or FIAT).

Several species of noxious weeds occur on BLM lands adjacent to, and within the perimeter of this fire. Previously recorded and treated noxious weeds include; Scotch thistle (*Onopordum acanthium*), leafy spurge (*Euphorbia esula)*, and rush skeletonweed (*Chondrilla juncea*).

Table 1 - Affected acres of Greater sage-grouse habitat.

	Focal Area (FIAT)	**FIAT PLANNING AREA NAME**	**FOCAL AREA NAME**	**FOCAL AREA PRIORITY**	
	NO	N/A	N/A	N/A	
	EIS CONSERVATION AREA				
	IDAHO MOUNTAIN VALLEYS CONSERVATION AREA	**---**	**---**	**---**	
	PRELIMINARY GRSG HABITAT	**TOTAL ACRES**	**BLM ACRES**	**STATE ACRES**	**PRIVATE ACRES**
	PGH	793	648	0	145
	PPH	0	0	0	0
	Total	**793**	**648**	**0**	**145**
	GRSG HABITAT MANAGEMENT AREAS	**TOTAL ACRES**	**BLM ACRES**	**STATE ACRES**	**PRIVATE ACRES**
	PHMA-Priority 1	0	0	0	0
	IHMA-Priority 2	0	0	0	0
	GHMA – Priority 3	1,300	658	0	642
	Total	**1,300**	**658**	**0**	**642**
	GRSG LANDSCAPE IMPORTANCE (LIM)	**TOTAL ACRES**	**BLM ACRES**	**STATE ACRES**	**PRIVATE ACRES**
	HIGH	0	0	0	0
	MODERATE/HIGH	0	0	0	0
	LOW/MODERATE	0	0	0	0
	LOW	1,308	661	0	647
	Total	**1,308**	**661**	**0**	**647**
	GRGS KEY HABITAT	**TOTAL ACRES**	**BLM ACRES**	**STATE ACRES**	**PRIVATE ACRES**
	Key	0	0	0	0

	R1- Perennial Grassland	793	648	0	145
	R2-Annual Grassland	506	9	0	497
	R3-Conifer Encroachment	0	0	0	0
	RB-Recently Burned	0	0	0	0
	Not Classified	0	0	0	0
	Total	**1,299**	**657**	**0**	**642**
	Seasonal Habitat	**TOTAL ACRES**	**BLM ACRES**	**STATE ACRES**	**PRIVATE ACRES**
	Breeding	0	0	0	0
	Winter Habitat	**1,330**	663	0	667

**Priority Habitat Management Area (PHMA); Important Habitat Management Area (IHMA); General Habitat Management Area (GHMA)*

Table 2 - The J169 Mann Fire affected three BLM allotments. There are no pasture division fences within these three allotments.

Allot No	Allot Name	Pasture No	Pasture Name	Total Pasture Acres	Total BLM Pasture Acres	Total Pasture BLM Acres Burned	% BLM Pasture Burned	# of Affected Permittees	AUMS	Season(s) of Use Dates
00051	Brent Mountain	01	N/A	1,608	121	38	31	1	22	4/1 – 5/31
20124	Lund FFR	00	N/A	479	163	121	74	1	12	4/15 – 6/16
00179	Sandy Ridge	01	N/A	906	710	505	71	1	78	4/15 – 4/30 11/16 – 12/31

LAND USE PLAN CONSISTENCY

The following treatments are proposed under this Emergency Stabilization (ES) and Burned Area Rehabilitation (BAR) plan.

Emergency Stabilization

S5 Noxious Weeds
S7 Fence Repair
S12 Closures (Livestock)
S13 Monitoring

Burned Area Rehabilitation

R4 Seedling Planting
R5 Noxious Weeds

S5/R5 Noxious Weeds

The control of noxious weeds is consistent with 1988 Cascade RMP, Resource Management Guidelines, Weeds (Control of Noxious), "BLM districts will work with 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 Vegetation Resource Objectives includes, "Protect candidate or sensitive plants". The control of noxious weeds is in compliance with State and county laws. Therefore, control of noxious weeds following the Mann Fire adheres to this direction and is in conformance with the RMP.

S7 Fence Construction/Repair

The 1988 Cascade RMP, Fire Management, Rehabilitation, Greenstripping and Reduction Actions/Procedures, (3.) states "All grazing licenses issued that include areas recently burned and/or seeded will include a statement concerning the amount of rest needed in the seedings or burn area". Vegetation Resource Objectives includes "Develop and implement management actions for areas found containing candidate or sensitive plants. Fence selected areas where harmful disturbance is likely. Monitor suspected areas". Therefore fence repair to protect the recently burned areas from adjacent livestock grazing and to protect existing spring developments adheres to this direction and is in conformance with the RMP.

S12 Closures (Livestock)

The 1988 Cascade RMP, Fire Management, Rehabilitation, Greenstripping and Reduction Actions/Procedures, (3.) state "All grazing licenses issued that include areas recently burned and/or seeded will include a statement concerning the amount of rest needed in the seeding's or burn area". Therefore, closure of all or portions of BLM grazing allotments and/or pastures following wildfire until ESR treatment and grazing resumption objectives are met adheres to this direction and is in conformance with the RMP.

S13 Monitoring

The 1988 Cascade RMP, Monitoring Section states, "The effects of implementation (of the RMP) will be monitored and evaluated on a periodic basis over the life of the plan. The general purposes of this monitoring and evaluation will be: (1) to determine if plan objectives are being met, (2) to determine if an action is fulfilling the purpose and need for which it was designed, or if there is a need for modification or termination of an action, (3) to discover unanticipated and/or unpredicted impacts, (4) to determine if mitigation measures are working as prescribed, (5) to ensure that decisions are being implemented as scheduled and in conformance with the RMP, (6) to provide continuing evaluation of consistency with other federal, state, and local plans and programs, and (7) to provide for continuing comparison of plan benefits versus costs, including social, economic, and environmental costs. Therefore, monitoring ESR treatments, including natural recovery, to see if objectives are being met adheres to this direction and is in conformance with the RMP.

R4 Seedling Planting

To restore the shrub structure lost by the fire, sagebrush and bitterbrush occurrence sites would be replanted with seedlings. The 1987 Cascade RMP, Preferred Alternative E, Wildlife Resources, Objectives, cites "shrub plantings" as a way of improving wildlife habitat, and the RMP Resource Management Guidelines for Wildlife Resources and specifically for Mule Deer Habitat, acknowledges the use of bitterbrush plantings as a method for improving forage condition for mule deer. Under Vegetation Resources Objectives, the RMP directs the Field

Office to "protect and manage 13 specific sites containing candidate, sensitive, or sensitive uncommon plants or valuable plant communities (the Rebecca Sand Hill RNA is one of these sites). This section of the RMP also calls for "seed mixtures on vegetation manipulation to include grass, forb, and shrub species that will benefit both livestock and wildlife".

COST SUMMARY TABLES

Emergency Stabilization (LF2200000):

Action/ Spec. #	Planned Action	Unit (acres, WMs, number)	# Units	Unit Cost (If Applicable)	FY16	FY17	FY18	Totals by Spec.
S5	**Noxious Weeds**	**Acres**	663	$7.54	$5,000	0	0	$5,000
S7	**Fence Repair**	**Miles**	3	$4,333	$13,000	0	0	$13,000
S12	**Closures**	**Ea**	1	$2,000	$1,000	0	$1,000	$2,000
S13	**Monitoring**	**Acres**	1,989	$1.00	$2,000	$1,000	$1,000	$4,000
	TOTAL COSTS (LF2200000)				**$21,000**	**$1,000**	**$2,000**	**$24,000**

Burned Area Rehabilitation (LF3200000):

Action / Spec. #	Planned Action	Unit (acres, WMs, number)	# Units	Unit Cost (If Applicable)	FY16	FY17	FY18	Totals by Spec.
R4	**Seedling Planting**	**Ea**	33,000	$3.00	$41,000	$37,000	$34,000	$112,000
R5	**Noxious Weeds**	**Acres**	1,326	$3.00	$0	$4,000	$4,000	$8,000
	TOTAL COSTS (LF3200000)							**$120,000**

PART 2 – POST FIRE RECOVERY ISSUES

EMERGENCY STABILIZATION

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 burned area contains steep slopes and cliffs that drain into both Mann Creek and the Weiser River. Soils associated with the area burned and bull dozer lines used to contain the fire are at high risk of erosion from both wind and water. The fire consumed much of the above ground biomass, leaving the area vulnerable to erosion. Digital Soil Survey Data (SSURGO, 2008) shows the soils in the burned area as a mix of silt loams and sandy loams with high potential for erosion following fires.

Grazing Closures/Fence Repair

Three grazing allotments were affected by the fire. As a result, over half of the Sandy Ridge allotment #00179 was burned and more than half of the BLM acres in the Lund FFR allotment #20124 burned - both will be temporarily closed to livestock grazing. Rest will allow recovery of pre-burn native grasses and forbs and help newly planted sagebrush and bitterbrush seedlings to become larger and more vigorous. Closure of these allotments would be implemented by the Range Program to ensure the area meets natural vegetation recovery objectives during the closed period. Repair of three miles of existing allotment boundary fences surrounding the Sandy Ridge and Lund FFR allotments are needed to effectively close the burned allotments and protect the area for recovery from livestock grazing in adjacent allotments.

ES ISSUE 3 - Habitat for Federal/State Listed, Proposed, or Candidate Species - N/A

ES ISSUE 4-Critical Heritage Resources - N/A

ES ISSUE 5 - Invasive Plants and Weeds

Noxious Weeds

Several noxious weed species have been documented through weed inventories and treatments conducted in the burned area and adjacent lands prior to this fire occurrence. Noxious and invasive weed species have the potential to spread following fire disturbance and post-fire conditions increase the potential for noxious weed expansion which would further degrading the landscape if left untreated.

The primary noxious weeds of concern within the burned area and adjacent lands that have a high potential to increase are; Scotch thistle (Onopordum acanthium), leafy spurge (*Euphorbia esula)*, and rush skeletonweed (Chondrilla juncea). ESR weed treatment is necessary to inventory, document, and treat noxious weed populations to prevent an increase, additional infestations and expansion of noxious weeds and further degradation across the landscape.

The burned public land will be inventoried and treated as needed for noxious weeds in FY16 and continued under BAR funding for FY17-FY18. The objective of this treatment is to identify and control known infestations of noxious weeds and prevent the increase of new infestations using spot herbicide spraying and biological control. This will be proposed under the BAR to suppress the expansion of these weeds. Weed control would be conducted the first year under ES

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BURNED AREA REHABILITATION

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

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

BAR ISSUE 1 - Lands Unlikely to Recover Naturally

The fire burned approximately 45% of a BLM special designation area known as the Rebecca Sandhills Research Natural Area (RNA). This designation was given because of the areas' intact native plant community growing in sandy soils. Two BLM S2 sensitive plant species, Mulford's Milkvetch (*Astragalus mulfordiae*) and Aase's Onion (*Allium aaseae*) grow and can be found within this RNA. Additionally this area has been historically used as a seed collection location for sagebrush, bitterbrush, and various native forbs species.

Mature xeric big sagebrush and antelope bitterbrush burned during the fire and natural regeneration and recovery of these mature shrubs and the vegetation structure they provided will take many years due to the loss of the existing seed source. Hand planting of seedling planting stock of both these species will shorten the recovery process and provide mature shrub cover more quickly than natural recovery. Containerized sagebrush seedling planting stock is more preferable than aerial application of seed in this location due to the sandy soil characteristics present in this area. Containerized seedlings with established root systems encased by soil media will provide increased capacity for moisture retention and provides an advantage over reestablishment from seed. Seed collection for sagebrush, bitterbrush, and various native forbs has been occurring in the RNA for over a decade.

Greater sage-grouse:

A total of 658 acres of BLM land designated as General Habitat Management Area (GHMA) was fire damaged. Within all land ownership jurisdictions, the fire burned a total of 1,300 acres (98% of the fire area) of sage-grouse GHMA Priority 3 habitat. Pockets of previously burned areas have been planted with bitterbrush

seedlings in the past.

Special Status Species:

Animals
The Southern Idaho ground squirrel *(Spermophilus brunneaus endemicus)*, an ESA candidate species, occurs within the burned area. One population occurs in the Lund FFR allotment and one population occurs in the Brent Mountain allotment.

Plants
Mulford's milkvetch (Astragalus mulfordiae) and Aase's Onion (*Allium aaseae*), both BLM Special Status Plants are found within the burned area. These species are ranked as Type 2, imperiled species-high endangerment within the state of Idaho.

Big Game:
The area burned by this fire is critical mule deer winter range and supports a number of animals season long.

ES treatments of fire damaged fence repair will allow for proper grazing management and livestock closure treatments to be put in place. Treatments will facilitate vegetation and habit community recovery and benefit the long-term maintenance of Greater sage-grouse, southern Idaho ground squirrel and big-game populations in the area.

BAR ISSUE 2 - Weed Treatments

The primary noxious weeds of concern within the burned area and adjacent lands that have a high potential to increase are; Scotch thistle (Onopordum acanthium), leafy spurge (*Euphorbia esula)*, and rush skeletonweed (Chondrilla juncea)

Continued FY17 and FY18 follow-up monitoring, inventory, and treatment of noxious weeds is imperative. Repeat inventories and treatments will provide return on investment of each previous year's treatment and control effort and allow for Early Detection Rapid Response (EDRR) for any new infestations and discovery of new invaders.

BAR ISSUE 3 – Tree/Shrub Planting – N/A

BAR ISSUE 4 - Repair/Replace Fire Damage to Minor Facilities – N/A

PART 3 – DESCRIPTION OF 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.

ES Issue 5 – Invasive Plants

S5 – Noxious Weeds

A. Treatment/Activity Description

1. Conduct short-term monitoring in FY2016 using Early Detection and Rapid Response (EDRR) assessment/monitoring of noxious weed infestations within the burned area.

2. Inventory/assessment, photos and map new noxious weed infestations within burned area using GPS technology and upload into the Boise District BLM.

3. Chemical treatments using pickups, UTVs/ATVs and backpack spray units may be used on any noxious weeds located within the fire on public lands. Coordination with County Departments of Agriculture and or the private land owner will be conducted on noxious weeds found on private lands inside and outside of the burn perimeter.

4. Approved bio-control agents will be used if available and applicable on larger infestations for long term weed management.

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

The fire is a disturbance that creates a receptive seedbed for the spread of noxious weeds and/or invasive species. Noxious weeds and non-native invasive species are a concern and can lower site biodiversity. Weed invasion is a potentially threatening process leading to competition with native plants and habitat modification. Plant communities and native species likely to be at greatest risk from weed invasion are those which occupy weed-prone habitats, such as riparian zones, rangelands with naturally low vegetation cover, and disturbed areas adjacent to and near existing weed infestations. On the Mann Fire, wind, livestock movement, and wildlife movement are the main vectors for noxious weed invasion. This treatment mitigates risk by allowing for an early means of detecting new noxious weed occurrences and a quick response for control. This treatment is necessary to prevent the establishment and to control the spread of new noxious weeds and non-native invasive species into the burned area. Chemical treatment of new and existing noxious weed infestations will reduce the likelihood of their spread to disturbed areas and help to reestablish high quality wildlife habitat within the burn.

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

The priority areas proposed for noxious weed monitoring and EDRR are very susceptible to invasion and existing populations of noxious weeds are now adjacent to non-infested areas that are devoid of surface vegetation. The BLM Boise District Integrated Programmatic Noxious Weed and Invasive Weed Treatment

Program has identified strategies for the inventory and treatment of noxious weeds and invasive species. A program of early detection and rapid response to control new infestations is cost effective because it helps to prevent new weed and invasive species invasions from becoming large and too expensive to control.

S7 – Fence Repair

A. Treatment/Activity Description

Approximately three miles of BLM allotment boundary division fence was fire damaged. Fence repair will consist of replacing burned wood line post with steel line posts and repairing/replacing the burned fence structures in accordance with BLM fencing and wildlife specifications.

The identified repair is needed to properly maintain current and future livestock management and ensure livestock grazing closures will be effective. Livestock grazing closures and/or agreements will be issued for both the Sandy Ridge and Lund FFR allotments.

B. How does the treatment relate to damage or changes caused by fire?
The fire affected three BLM allotments with a total of 3 miles of livestock management fence that is BLM's responsibility. All exterior allotment boundary fences need repaired. The identified repair is needed to maintain proper livestock management and ensure livestock grazing closures will be effective. Livestock grazing closures will be issued for two grazing allotments.

C. Why is treatment/activity reasonable, within policy, and cost effective?
Fence repair is a cost effective means to rest areas damaged by wildfire during vegetation recovery. Damaged wood fence posts and rock jacks will be evaluated for the most cost effective means of repair or replacement. Additionally, negotiations are being made with permittees to provide labor and perform repair work on damaged fences on BLM lands with government provided materials. If fences were not repaired livestock movement in the area would be left unchecked and could cause immediate damage to exposed areas jeopardizing recovery of the native vegetation community, Greater sage-grouse habitat, southern Idaho ground squirrel habitat, and other special status plant species habitat.

S12 – Closures (Livestock)

A. Treatment/Activity Description

Out of the three allotments affected (Sandy Ridge, Lund FFR, Brent Mountain) two of these allotments (Sandy Ridge, Lund FFR) will have livestock closures. The duration of the closure and grazing resumption objectives will be identified in the grazing closure decisions to be issued in the winter of 2015.

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

The fire burned much of the existing perennial grasses and forbs, and shrubs within the burn perimeter including Greater sage-grouse, southern Idaho ground squirrel, and critical winter mule deer habitat. The

remnant upland and riparian vegetation and soils would incur further damage if livestock were permitted to utilize the allotments. The purpose of this treatment is to rest the burned area to allow existing vegetation damaged by the fire to recover and to protect vulnerable soils lacking vegetation. Recovery of plant communities and establishment of native shrubs would positively impact sage-grouse and other wildlife by increasing shrub cover, promoting recovery of forage (grasses and forbs), reducing/inhibiting weedy vegetation, and stabilizing soil resources.

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

Livestock preferentially graze native perennial vegetation. Measures need to be taken to allow burned vegetation to recover as well as protect exposed soils. Livestock grazing would cause additional, unacceptable, and mitigatable pressure on these plant communities putting their recovery at risk. Further, exposed soils in the uplands as a result of the fire run the risk of further damage or degradation by livestock use.

The Boise District Office Normal Fire Emergency Stabilization and Rehabilitation Plan Environmental Assessment (EA# ID-090-2004-050) states that natural recovery via rest from livestock grazing would "…contribute to the recovery of the remaining vegetation and would benefit future native plant community structure." Regarding seeding protection the EA states, "Exclusion of livestock and wild horses is critical for the recovery of burned vegetation or establishment and protection of new seedings." The EA also states, "…deferred livestock grazing would protect recovering sites for at least two growing seasons after the fire, or vegetation is established adequately to withstand grazing."

Costs associated with the proposed livestock grazing closure are minimal relative to the benefits of natural recovery of native plant communities.

BAR Issue 1 – Land Unlikely to Recover

R4 – Seedling Planting

A. Treatment/Activity Description

The proposal is to restore the shrub structure lost in the fire by replanting xeric big sagebrush and antelope bitterbrush seedlings. Seedlings would be planted in October/November prior to snowfall. Seedlings would be placed in pockets on north and west facing slopes where mature shrubs occurred prior to the fire. Bitterbrush seedlings would be one year old bare root stock and sagebrush would be 10 cubic inch containerized stock. The first planting year would consist of 9,000 sagebrush and 6,000 bitterbrush seedlings, the second year 4,000 sagebrush and 6,000 bitterbrush seedlings and the final year 2,000 sagebrush and 6,000 bitterbrush seedlings. Plantings would be done by hand using sharpshooter shovels, hoe dads, or augers.

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

The planting of shrub seedlings will help to ensure long term vegetation structure needed for sage-grouse and big game cover and browse. Mature shrub cover existed within the burn perimeter prior to the fire. We expect to achieve a nature stand of shrubs within 5-10 years following shrub planting which will provide habitat for sagebrush obligate species and big game that depend on shrubs for cover and as a food source during the critical winter months. Other shrubs 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 burn removed an area of mature sagebrush and bitterbrush within general sage-grouse habitat and the Rebecca Sand Hill RNA where two BLM sensitive plant species are found. These are the Bureau's highest priority areas for reestablishment of shrubs, herbaceous grasses, and forb species. Benefits to critical resources will outweigh the cost of treatment. Seedling plantings are considered to be more preferable than aerial application of seed in this location due to the sandy nature of the soils and the increased capacity of bare root stock/containerized plants to take advantage of available soil moisture.

BAR Issue 2 – Weed Treatments

R5 – Noxious Weeds

A. Treatment/Activity Description

1. Conduct short-term monitoring in FY2016 using Early Detection and Rapid Response (EDRR) assessment/monitoring of noxious weed infestations within the burned area.

2. Inventory/assessment, photos and map new noxious weed infestations within burned area using GPS technology and upload into the Boise District BLM.

3. Chemical treatments using pickups, UTVs/ATVs and backpack spray units may be used on any noxious weeds located within the fire on public lands. Coordination with County Departments of Agriculture and or the private land owner will be conducted on noxious weeds found on private lands inside and outside of the burn perimeter.

4. Approved bio-control agents will be used if available and applicable on larger infestations for long term weed management.

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

The fire is a disturbance that creates a receptive seedbed for the spread of noxious weeds and/or invasive species. Noxious weeds and non-native invasive species are a concern and can lower site biodiversity. Weed invasion is a potentially threatening process leading to native vegetation competition and habitat modification. Plant communities and native species likely to be at greatest risk from weed invasion are those which occupy weed-prone habitats, such as riparian zones, rangelands with naturally low vegetation cover, and disturbed areas adjacent to and near existing weed infestations. On the Mann Fire, wind, livestock movement, and wildlife movement are the main vectors for noxious weed invasion. This treatment mitigates risk by allowing for an early means of detecting new noxious weed occurrences and a quick response for control. This treatment is necessary to prevent the establishment and to control the spread of new noxious weeds and non-native invasive species into the burned area. Chemical treatment of new and existing noxious weed infestations will reduce the likelihood of their spread to disturbed areas and help to reestablish high quality wildlife habitat within the burn.

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

The priority areas proposed for noxious weed monitoring and EDRR are very susceptible to invasion and existing populations of noxious weeds are now adjacent to non-infested areas that are devoid of surface vegetation. The BLM Boise District Integrated Programmatic Noxious Weed and Invasive Weed Treatment Program has identified strategies for the inventory and treatment of noxious weeds and invasive species. A program of early detection and rapid response to control new infestations is cost effective because it helps to prevent new weed and invasive species invasions from becoming large and too expensive to control.

PART 4 – DETAILED TREATMENT COST TABLE

See Attached

PART 5- SEED LISTS

Seedling Species	Acres of Seedlings Planted	# per acre	Total Number	Cost/Seedling	Total Cost
Xeric Sagebrush (Artemisia tridentate ssp. xericensis	50	300	15,000	1.00	15,000
Antelope Bitterbrush (Purshia tridentata)	50	360	18,000	1.00	18,000
TOTAL	50	660	33,000	1.00	33,000

PART 6 - NATIVE/NON-NATIVE PLANT WORKSHEET

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

1. **Are the native plants proposed for seeding adapted to the ecological sites in the burned area?**

Yes **Rationale:**

Xeric big sagebrush and antelope bitterbrush are both locally adapted to the main ecological sites within the proposed treatment areas and were present within the burned area prior to the Mann fire. Originally considered a xeric form of mountain big sagebrush, xeric big sagebrush shares similarities with both basin and mountain big sagebrush and may be the result of hybridization between the two subspecies (Rosentreter and Kelsey, 1991). Mountain big sagebrush, basin big sagebrush, and antelope bitterbrush have been utilized in the same/similar ecological sites, elevations, and aspects on lands administered by the FRFO. The following seedings in the FRFO which meet the above criteria - same/similar species, ecological sites, elevations, and aspects - have proven successful: the 2005 Snake One Fire (2013 personal communication, Anna Owsiak, IDFG), 2006 Cherry Fire (2008 monitoring report), and 2006 Frenchie Fire (2008 monitoring report).

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

Yes **Rationale:**

The Boise District will request xeric big sagebrush seed primarily from the BLM Regional Seed Warehouse and secondarily from IDFG. If xeric big sagebrush seed is unavailable or available in lower quantities than needed, other big sagebrush species also adapted to the area will be used entirely or to supplement shortfalls. Antelope bitterbrush seed will also be provided by the BLM Regional Seed Warehouse. These species are generally available in the quantities needed for the proposed treatment. Seedlings will be grown by USFS Lucky Peak Nursery and seedling planting would not occur until the fall/winter of FY17 and FY18.

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

Yes **Rationale:**

The primary native seed proposed for use (xeric big sagebrush and antelope bitterbrush) will be sourced from collections made in the Weiser River Basin and from the appropriate seed transfer zone and therefore, the quality of seed is expected to be high resulting in a higher rate of establishment. Costs are expected to be comparable to sagebrush seed costs in recent years.

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 **Rationale:**

The xeric big sagebrush seed and antelope bitterbush seed would be collected from shrubs growing in the same or similar locale as the burned area. Such seeds are expected to exhibit high rates of establishment and survivorship because they are locally adapted. The native taxa (xeric and similar big sagebrush) proposed for seeding have exhibited the ability to establish and persist in similar ecological sites within the Four Rivers Field Office. See citations for seeding success in Part 6 - Question #1 above.

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 **Rationale:**

The areas will be rested from livestock grazing for a minimum of two growing seasons and until resource objectives listed in this ES/BAR plan and forthcoming grazing allotment closure decisions are met. This will facilitate shrub establishment and natural recovery of existing vegetation. Prior to the resumption of livestock grazing the treatment areas will have to meet minimum criteria (see monitoring plan) before livestock grazing may resume.

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

Non-native Plants	Native Plants
	Antelope Bitterbrush (Purshia tridentata)
	Xeric Sagebrush (Artemisia tridentate ssp. xericensis

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

No non-native seed planting is proposed in any treatment.

PART 7. COST-RISK ANALYSIS

A. Probability of Treatments Successfully Meeting Objectives

Action/ Spec. #	Planned ES Action (LF2200000)	Unit (acres, WMs, number)	# Units	Total Cost	% Probability of Success
S5	Noxious Weeds	Acres	663	$5,000	90
S7	Fence Repair	Miles	3	$13,000	100
S12	Closures	Ea	1	$2,000	100
S13	Monitoring	Acres	1,989	$4,000	100
			TOTAL COSTS:	$24,000	

Action/ Spec. #	Planned BAR Action (LF3200000)	Unit (acres, WMs, number)	# Units	Total Cost	% Probability of Success
R4	Seedling Planting	Each	33,000	$112,000	75
R5	Noxious Weeds	Acres	1,326	$8,000	90
			TOTAL COSTS:	$120,000	

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* Rationale for answer: The noxious weed treatments will help protect adjacent private and BLM lands against further expansion of noxious weeds. Existing fence repair and grazing closures will help to ensure that no disturbance from livestock occurs in the recovering burned area and in recovering habitat for candidate and sensitive species.

No Action *No* Rationale for answer: Failure to treat noxious weeds and rest the burned area would compromise vegetation recovery, having adverse effects on candidate and sensitive animal and plant species habitat.

Alternative(s) 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* Rationale for answer: Fence repair and closures would allow for vegetation recovery in areas where native species and previously seeded species burned in mosaic pattern leaving remnant seed sources. Weed control efforts in this area and for similar noxious weed species and in similar soils and precipitation has proven to be successful. The objective is to contain known infestations from mass spread and to detect new invaders. Known sites are already identified which will aid in the successful monitoring of spread and treatment. There is a high likely hood for early detection and rapid response for new noxious weed invasion.

No Action *No* Rationale for answer: There would be no costs associated with no action, but no benefits would be realized. If proposed areas are not protected with fence repair and livestock closure, there is a reduced potential for vegetation recovery of sage-grouse, southern Idaho ground squirrel and critical mule deer winter range habitat. The burned area has a high potential for expansion of noxious weeds. There is high potential for adjacent unburned areas (federal, state, and private) becoming dominated by noxious weeds.

Alternative(s) 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 | X|,
Alternative(s) |__|,
No Action |__|

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 8 – MONITORING PLAN

S5 - Noxious Weeds

Identify the objective of the treatment:

Three species of noxious weeds have been identified and recorded within the burned area and these species occur in greater infestations on lands adjacent and outside the current burned area. It is expected that these weeds will expand their range as a result of the fire. Since these weed species are not uniformly distributed across the burn area, a quantifiable objective cannot be established.
The objective for the first growing season is to conduct an inventory of the burned area and employ EDRR strategy. Noxious weeds detected during the inventory would be treated when possible. Any expansion of known populations of noxious weeds would be treated to contain their spread.

Describe how implementation will be monitored:
Inventory and treatment data will be recorded in the NISIMS database, in Pesticide Application Records, and using GPS/GIS. This data will include information on species, location and size of infestation, chemicals applied, amount of chemicals applied, weather, phenology, etc.

Describe how effectiveness will be monitored, how it will be measured, and within what time period:
Size and abundance of noxious weed infestations as well as any needed treatments would be compared between years one, two, and three to determine treatment effectiveness. If noxious weed populations remain in the burned area beyond the third year, responsibility would be transferred to the Boise District Noxious Weed Program for ongoing inventory, treatment and monitoring using funding sources other than ESR.

S7 - Fence

Identify the objective of the treatment:
The objective of this treatment is to repair approximately 3 miles of allotment exterior boundary livestock management fence. This will help to provide for proper pasture livestock management and livestock grazing closure compliance. All fences would be repaired to BLM fence standards for wildlife.

Describe how implementation will be monitored:
Repair of damaged fences will be monitored through contract administration to ensure fencing is repaired to BLM specifications. Any changes from the planned implementation will be noted in the project file "as builts" and reflected in the monitoring report.

Describe how effectiveness will be monitored, how it will be measured, and within what time period:
Fence repairs will be documented in "as builts" Any changes from the planned implementation will be noted in the project file "as built" discussion.

S12 – Closures (Livestock)

Identify the objective of the treatment:
The objective is to close the area to livestock grazing during post-fire recovery until the grazing resumption objectives identified in the forthcoming grazing closure decisions/grazing agreements are met. This is consistent with the RMP and the NFRP.

Describe how implementation will be monitored:
Resumption of livestock grazing will be dependent on meeting the grazing resumption objectives as identified in the forthcoming grazing closure decisions or grazing agreements. The monitoring for grazing resumption and recommendations for grazing resumption will be the responsibility of an interdisciplinary team of Four Rivers Field Office (FRFO) specialists in addition to that conducted by and feedback from the ES&R staff. Implementation of the closure will be administered and monitored through the FRFO Rangeland Management staff. Full force and effect Decisions may be issued to close the burned area to livestock grazing.

Describe how effectiveness will be monitored, how it will be measured, and within what time period:
Effectiveness of the livestock closure will be measured by site visits and lack of evidence of livestock use within the burned area. Resumption of livestock grazing in the natural recovery areas will be based on objectives identified in the forthcoming grazing closure decisions or grazing agreements supplemented by data collected by ES&R staff.

S13 - Monitoring

Identify the objective of the treatment:

Refer to individual objectives Part 8.

Describe how implementation will be monitored:

Refer to individual objectives Part 8.

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

Refer to individual objectives Part 8.

R4 – Seedling Planting

Identify the objective of the treatment:

The objective is to establish antelope bitterbrush and xeric big sagebrush in suitable planting sites. Seedling establishment would be considered successful when 40% of the planted seedlings persist into the third year after planting.

Describe how implementation will be monitored:

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 radius 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 and quality control.

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

Effectiveness will be monitored in April-June each spring. The monitoring plots that were established during contract implementation will be revisited and data will be collected on survival rate, browse, and competition.

R5 - Noxious Weeds

Identify the objective of the treatment:

Three species of noxious weeds have been identified and recorded within the burned area and these species occur in greater infestations on lands adjacent and outside the current burned area. It is expected that these weeds will expand their range as a result of the fire. Since these weed species are not uniformly distributed across the burn area, a quantifiable objective cannot be determined.

The objective for the 2nd and 3rd year treatments are follow-up monitoring, inventories, and treatment. Repeat inventories and treatments will provide return on investment of each previous years treatments and control efforts and allow for Early Detection Rapid Response (EDRR) for any new infestations and discovery of new invaders.

Describe how implementation will be monitored:
Inventory and treatment data will be recorded in the NISIMS database, in Pesticide Application Records, and using GPS/GIS. This data will include information on species, location and size of infestation, chemicals applied, amount of chemicals applied, weather, phenology, etc.

Describe how effectiveness will be monitored, how it will be measured, and within what time period:
Size and abundance of noxious weed infestations as well as any needed treatments would be compared between years one, two, and three to determine treatment effectiveness. If noxious weed populations remain in the burned area beyond the third year, responsibility would be transferred to the Boise District Noxious Weed Program for ongoing inventory, treatment and monitoring using funding sources other than ESR.

PART 9 – MAPS

1. Fire Perimeter
2. Fire Frequency
3. Sage-grouse Habitat
4. Allotments/Pastures
5. Noxious Weeds
6. Seedling Planting
7. Fence Repair
8. Grazing Closures

PART 10 – REVIEW, APPROVALS, and PREPARERS

TEAM MEMBERS

Position	Team Member (Agency/Office)	Initial and Date
READ/Rangeland Mgt. Specialist	Sarah Garcia, FRFO	
Operations	Alex Webb, OPS	
Botanist	Mark Steiger, FRFO	
GIS Specialist	Alex Webb, OPS	

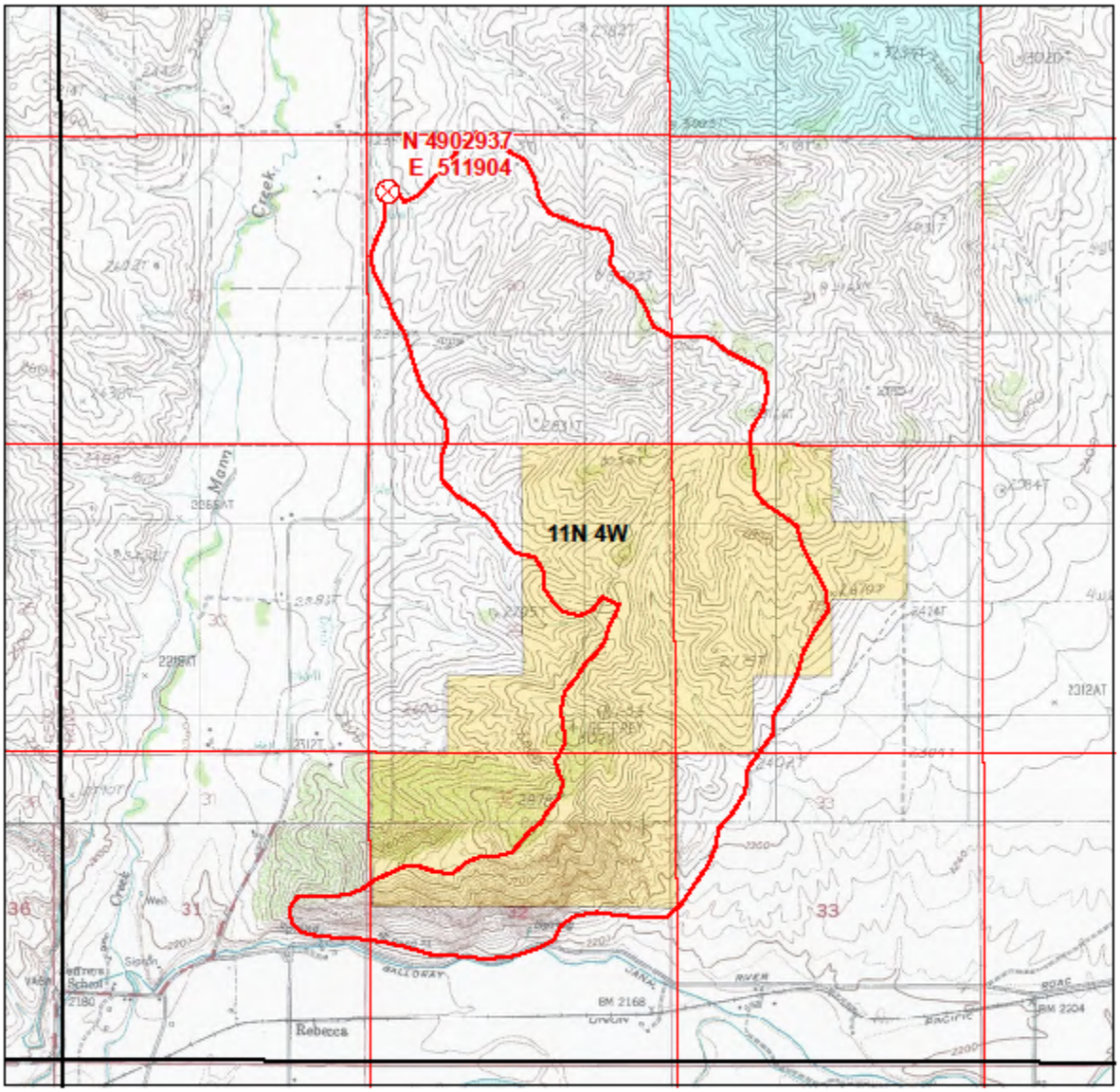
PLAN APPROVAL

Tate Fischer DATE
FOUR RIVERS FIELD MANAGER

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 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.



Fire Origin:
T11N R04W, Sec 20

Total acres: 1,330
BLM 663
Private 667

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

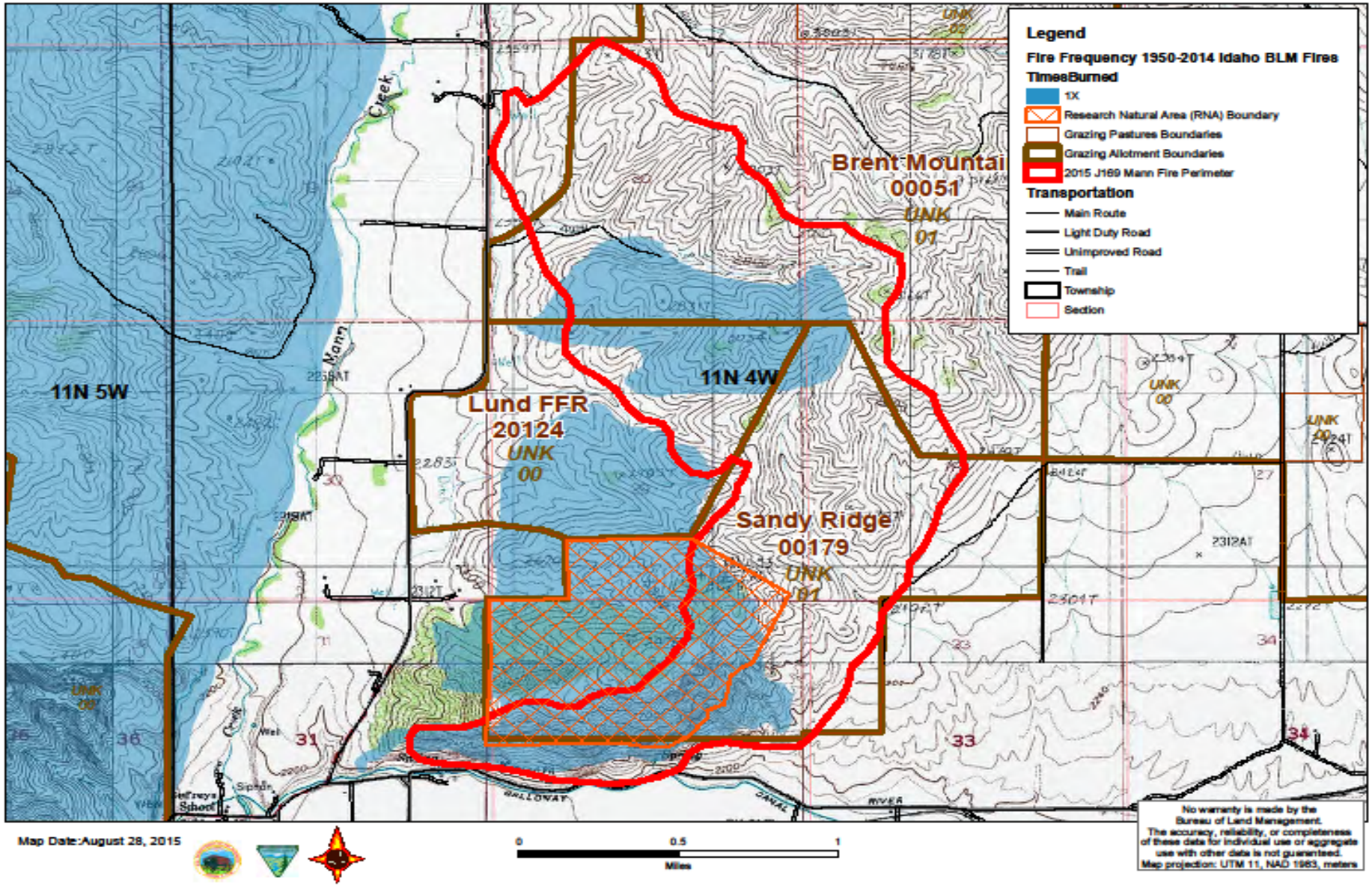
Map Date:August 19, 2015

Boise District 2015
Four Rivers Field Office
Fire: J169 Mann

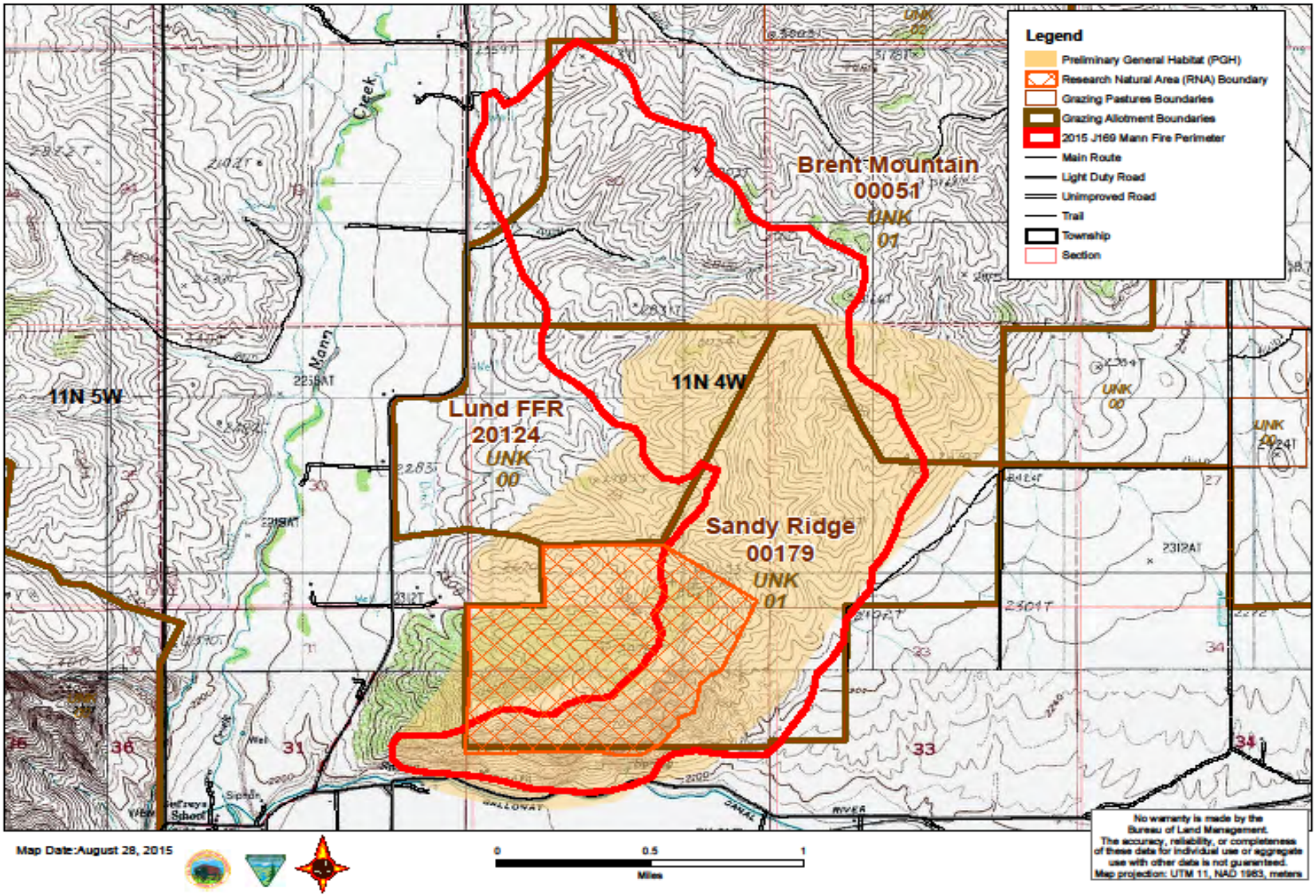
0 0.5 1
Miles

Fire Origin
Fire Perimeter
BLM
State
Private
Township
Section

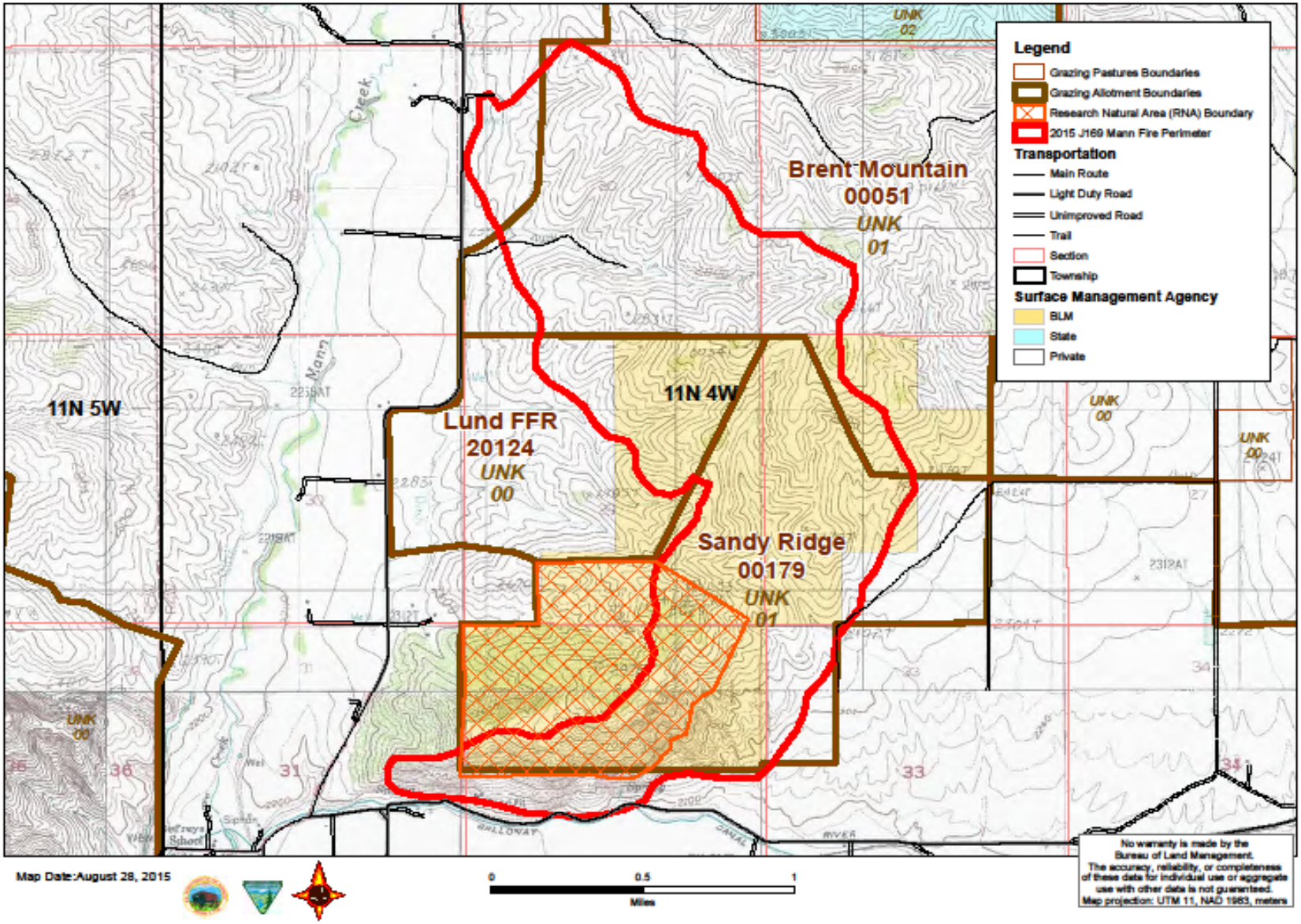
Boise District 2015
J169 Mann - Fire Frequency



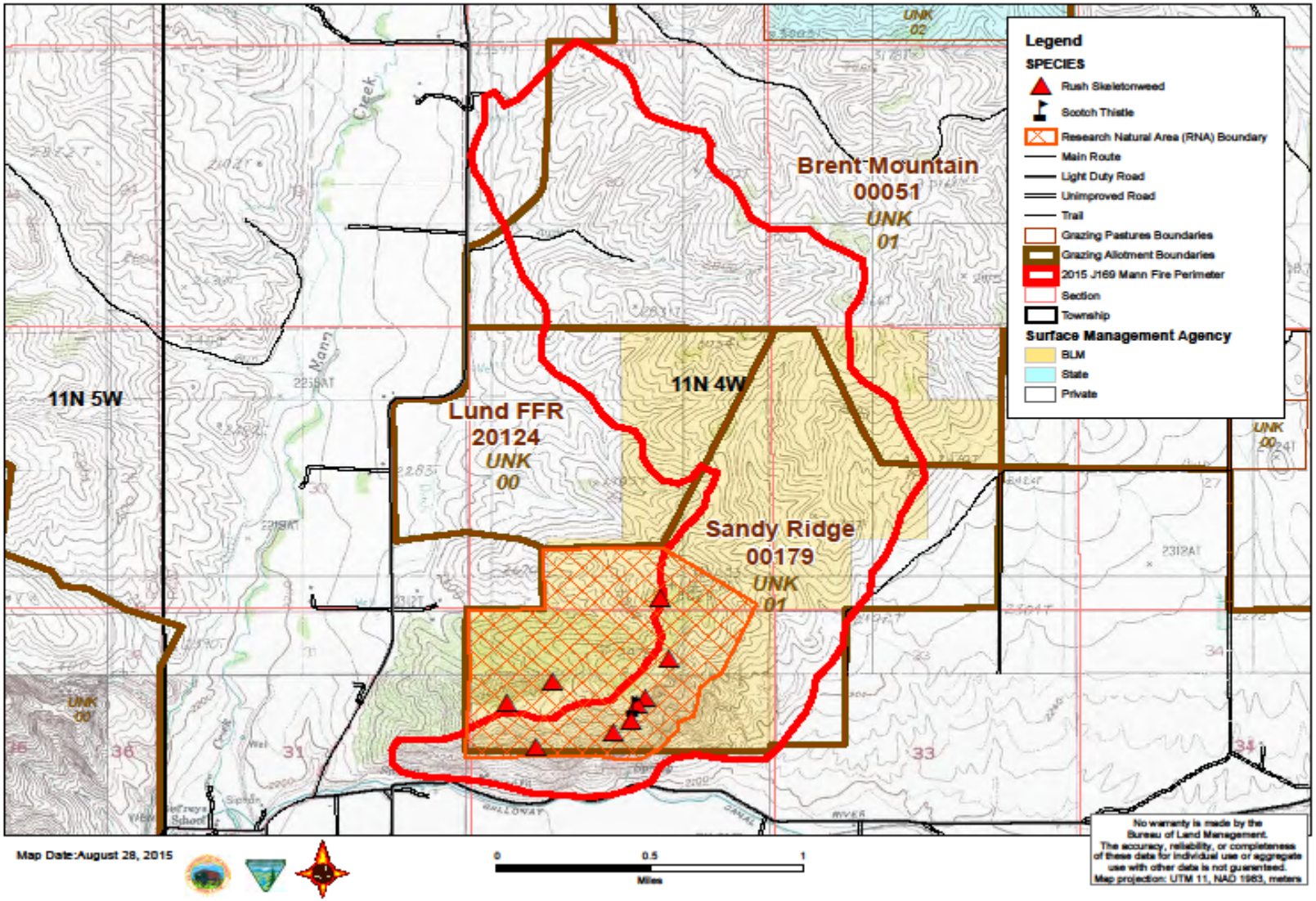
Boise District 2015
J169 Mann - Greater Sage-grouse Habitat



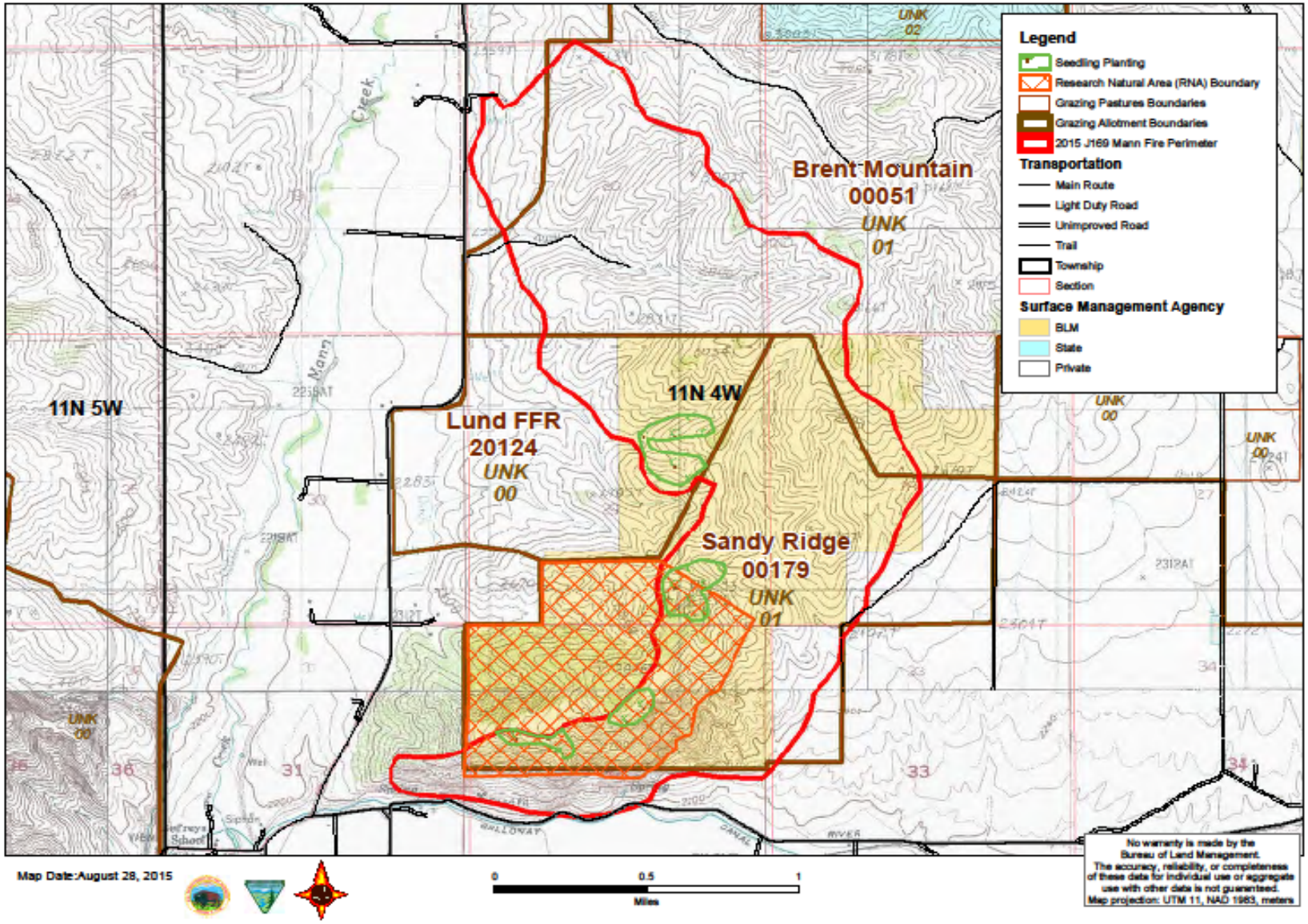
Boise District 2015
J169 Mann - Allotments and Pastures



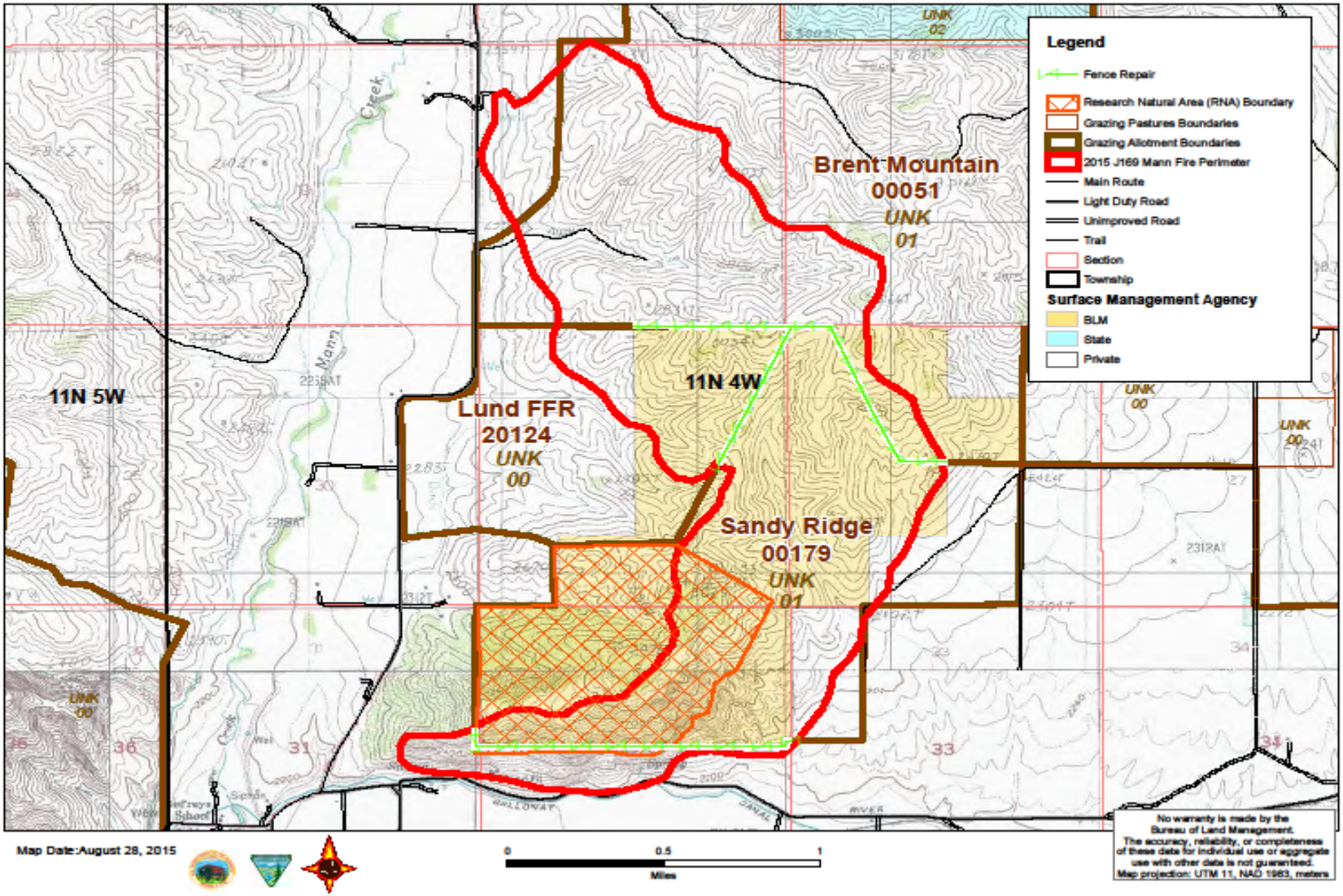
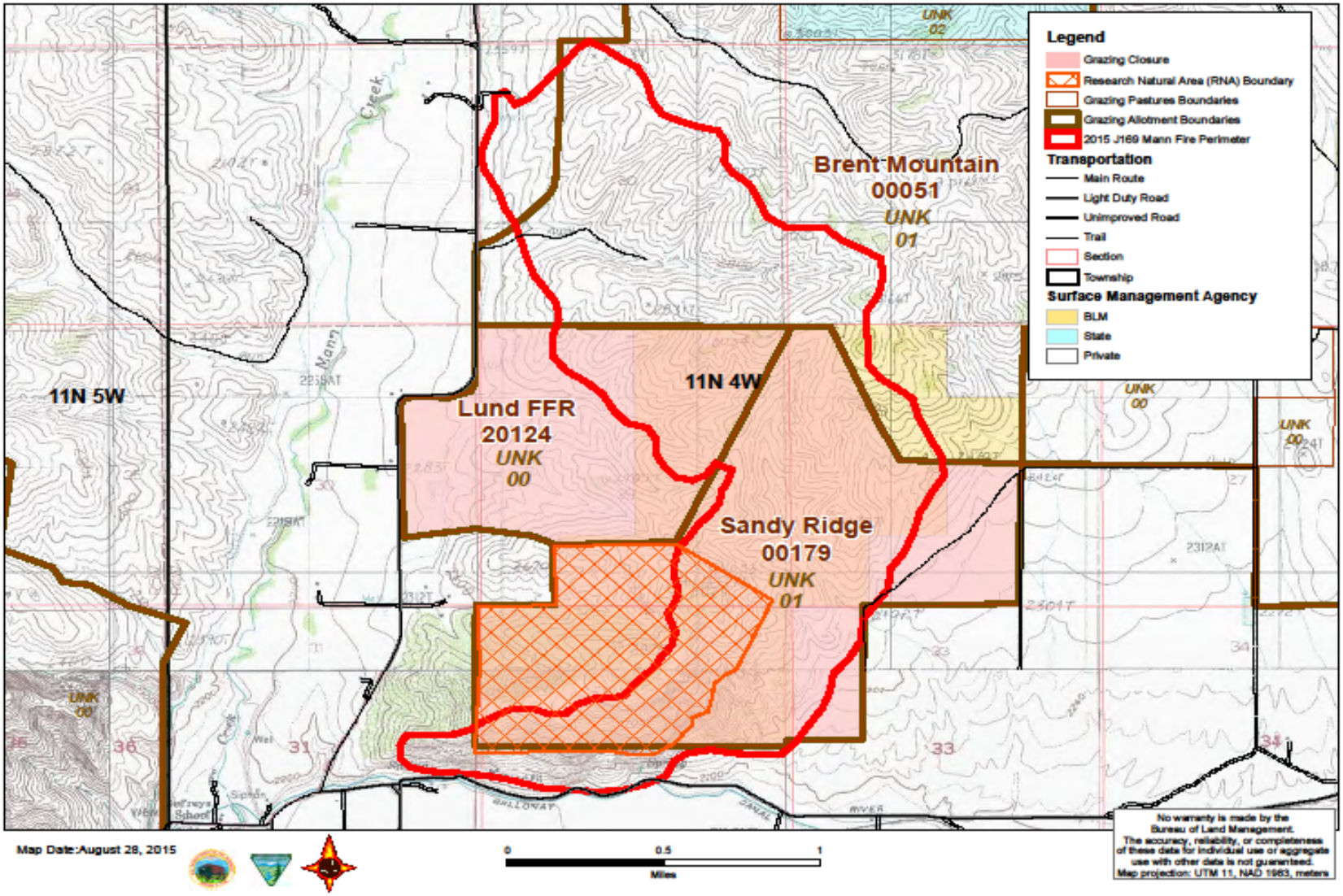
Boise District 2015
J169 Mann - Noxious Weeds



Boise District 2015
J169 Mann - Seedling Planting



Boise District 2015
J169 Mann - Fence Repair



Boise District 2015
J169 Mann - Grazing Closure