

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

PASCUAL 1 FIRE

**BUREAU OF LAND MANAGEMENT
VALE DISTRICT
JORDAN FIELD OFFICE
OREGON STATE OFFICE**

FIRE BACKGROUND INFORMATION

Fire Name	Pascual 1
Fire Number	F9P0
District/Field Office	Vale District/Jordan Field Office
Admin Number	LLORV00000/LLORV06000
State	Oregon
County(s)	Malheur
Ignition Date/Cause	8/6/2011 – Lightning
Date Contained	8/9/2011
Jurisdiction	<i>Acres</i>
BLM	1,488
State	0
Private	253
Other	0
Total Acres	1,741
Total Costs	\$192,000
Costs to LF20000ES (2822)	\$170,000
Costs to LF32000BR (2881)	\$22,000
Total Costs	\$192,000

Status of Plan Submission (check one box below)

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

PART 1 - PLAN SUMMARY

BACKGROUND INFORMATION ON THE FIRE

The Pascual 1 Fire was started by lightning on August 6, 2011 and was contained on August 9, 2011 after burning a total of 1,741 acres. The location of the fire is identified on Map 1. Seeding in conjunction with weed treatments and protection from grazing would stabilize the site and prevent invasion of noxious weeds. There are scattered populations of noxious weeds in the burn area and general vicinity of the fire. Yellow starthistle (*Centaurea solstitialis*), diffuse knapweed (*Centaurea diffusa*), Russian knapweed (*Acroptilon repens*), halogeton (*Halogeton glomeratus*) and Scotch thistle (*Onopordum acanthium*) have been documented within the burn area.

Whitetop (*Lepidium ssp*) has been identified near the perimeter of the burn, along roadsides in the area. Invasive species such as cheatgrass (*Bromus tectorum*), Medusahead (*Taeniatherum caput-medusae*), Russian thistle (*Salsola ssp*), and various annual mustards, including tumble mustard (*Sisymbrium altissimum*), are common throughout the area. In the absence of competition, the burn area would be extremely vulnerable to expansion or invasion by any of these highly competitive annuals, biennials and perennial noxious and/or invasive weed species. Weed control within the burn area would help prevent invasive species from dominating the site. Seeding is needed to establish sagebrush to help prevent loss of sagebrush habitat.

The area burned by the fire was primarily flat to gently rolling with canyon rims extending into the Jordan Creek drainage. Vegetation prior to the fire was dominated by perennial bunchgrass species with scattered rabbit brush and Wyoming big sagebrush. Several noxious weed species have been documented within and/or in close proximity to the burn area. The burn area would be vulnerable to invasion by annual grasses and noxious weeds until desirable vegetation is established. Seeding is needed to help prevent weed invasion and promote competition between desirable perennial bunchgrasses. Weed control within the burn area would help prevent invasive species from dominating the site.

LAND USE PLAN CONSISTENCY

All treatments identified in this plan have been reviewed and are in conformance with the Southeastern Oregon Resource Management Plan as detailed in the Documentation of Land Use Plan Conformance and NEPA Adequacy (DNA) number V060-2011-064 prepared for this plan.

There are no Wilderness Study Areas (WSA), Areas of Critical Environmental Concern (ACEC) or other Special Management Areas within the proposed treatment areas. The proposed treatments are not within any of the areas identified in a 2004, citizens proposal for additional WSA's. Additionally, an April 2011 BLM Inventory determined that the proposed treatment area does not contain wilderness character.

The areas proposed for seeding would be inventoried for cultural and paleontological resources prior to ground disturbing activities. Cultural resources discovered during the survey, and those previously recorded, would be flagged, recorded and avoided as appropriate. If fossil floral or faunal resources are located during the survey, depending on the nature and extent of the fossil locality, the area would either be flagged and avoided during plan implementation activities or the fossils would be removed prior to ESR activities.

COST SUMMARY TABLES

Emergency Stabilization (LF20000ES):

Action/ Spec. #	Planned Action	Unit (acres, WMs, number)	# Units	Unit Cost (If Applicable)	FY11	FY12	FY13	FY14	Totals by Spec.
S1	Planning (Project Mgmt)	WM's	1	\$8,000	\$2,000	\$2,000	\$2,000	\$2,000	\$8,000
S2	Ground Seeding	Acres	800	N/A	\$0	\$72,000			\$72,000
S5	Noxious Weeds	Acres	250	N/A	\$0	\$30,000			\$30,000
S7	Fence/Gate/Cattle Guard	Miles	3	\$30,000	\$0	\$21,000		\$8,000	\$29,000
S12	Closures (area, OHV, livestock)	WM's	0.5	N/A	\$0	\$4,000			\$4,000
S13	Monitoring	Acres	800	N/A	\$0	\$9,000	\$9,000	\$9,000	\$27,000
TOTAL COSTS (LF20000ES)					\$2,000	\$138,000	\$11,000	\$19,000	\$170,000

Burned Area Rehabilitation (LF32000BR):

Action/ Spec. #	Planned Action	Unit (acres, WMs, number)	# Units	Unit Cost (If Applicable)	FY11	FY12	FY13	FY14	Totals by Spec.
R5	Noxious Weeds	Acres	50	N/A	\$0	\$0	\$10,000	\$5,000	\$15,000
R7	Fence/Gate/Cattleguard	Miles	1		\$7,000	\$0	\$0	\$0	\$7,000
TOTAL COSTS (LF32000BR)					\$7,000	\$0	\$10,000	\$5,000	\$22,000

PART 2 – POST-FIRE RECOVERY ISSUES AND TREATMENTS

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

EMERGENCY STABILIZATION ISSUES AND TREATMENTS

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

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

ES Issue 1 - Human Life and Safety: N/A

ES Issue 2 - Soil/Water Stabilization: The burn area is classified as soil unit 188 which is a Nevador (75%) and Wisher (20%) complex that consists of deep, fine-loams derived from ash, loess and alluvium. Slopes are 0 – 8% and soils are slightly susceptible to wind erosion. The burned area needs to be closed to livestock grazing to ensure the adequate recovery of the vegetation and success of the proposed treatment. Temporary fences would be needed to protect the recovering vegetation from livestock grazing while still allowing permittees to access the unburned portions of the pasture. By drill seeding perennial plants, long term soil protection would be enhanced by having more plant biomass above and below the ground surface. Once established perennial vegetation would aid in preventing site conversion to annual grasses.

Treatment/Activity: S2 Drill Seeding

A. Treatment/Activity Description. Approximately 800 acres of public land in the burned area would be seeded using rangeland drills during the fall of 2011 or spring of 2012 with a mixture of native and non-native perennial grasses and sagebrush. The seeding would primarily be done in those areas that prior to the fire contained sagebrush and rabbit brush. The site had a scattered canopy of yellow rabbitbrush (*Chrysothamnus viscidiflorus*) and Wyoming big sagebrush (*Artemisia tridentata*) with a perennial herbaceous understory containing crested wheatgrass (*Agropyron cristatum*), bluebunch wheatgrass (*Pseudoroegneria spicata*) and Sandberg's bluegrass (*Poa secunda*). The site is moderately suited for seeding using the rangeland drill, but prior treatments in the burn area have been successful. Seed would be applied using rangeland drills which would be trailed by a cultipacker to compress the sagebrush seed into the soil surface.

The areas proposed for drill seeding would be inventoried for cultural and paleontological resources prior to ground disturbing activities. Cultural resources discovered during the survey, and those previously recorded, would be flagged, recorded and avoided as appropriate. If fossil floral or faunal resources are located during the survey, depending on the nature and extent of the fossil locality, the area would be flagged and avoided during plan implementation activities or the fossils would be recovered prior to emergency stabilization (ES) activities.

B. How does the treatment relate to damage or changes caused by the fire? The goal of the treatment is to stabilize the site with competitive perennial vegetation and minimize erosion in the long term. Soils within the burn area are loamy and susceptible to wind erosion in the short term until vegetative cover is restored. The treatment would stabilize the site by preventing conversion to annual and undesirable species. The treatment area receives from 9 – 12" of precipitation annually. Similar treatments have been done successfully on numerous projects in the area with similar soils, vegetation and precipitation. Of the 800 acres proposed under this project 630 acres have been previously seeded using a rangeland drill.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Treatments have been reviewed and are in conformance with the Southeastern Oregon Resource Management Plan (2002). The treatment area receives from 9 – 12” of precipitation annually. The treatment is cost and resource effective, would stabilize the site and minimize erosion in the long term. Costs are detailed in part 4 of this document. Previous treatments that have been implemented in the burn area resulted in vigorous stands of perennial grasses. Monitoring would be conducted to determine whether the following objectives are reached: Establishment of seeded grass densities of 1.5 plants per square meter (m²) by the end of the third growing season following implementation of seeding. Obtain a total percent cover excluding woody species (live plants, litter, standing dead plant material, and gravel/rock) value within treatment areas that is within +/- 10% of total percent cover of adjacent unburned areas of the same ecological site within three growing seasons following implementation. Seeding within the burned area with a seed mix that includes sagebrush, at a minimal cost would prevent the loss of sagebrush habitat.

Treatment/Activity: S7 Protective Temporary Fence Construction

A. Treatment/Activity Description. Three miles of temporary protection fence would be erected to separate the burn area from unburned portions of the pasture. The temporary fence would be removed when it was no longer deemed necessary to exclude livestock from the burned area.

B. How does the treatment relate to damage or changes caused by the fire? The goal of the treatment is to protect the burn area from grazing impacts to allow recovery of vegetative resources and establishment of seeded species. The construction of a temporary fence and repair of existing fences would allow the site to recover while maximizing protection of soil and vegetative resources.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Protection fences would enable the permittees to utilize their grazing preference until vegetative objectives are met. These fences would be effective in eliminating livestock from the burned areas. Treatments have been reviewed and are in conformance with the Southeastern Oregon Resource Management Plan (2002). Monitoring is detailed in part 6 of this document. The treatment is cost and resource effective, would allow the site to stabilize and would minimize erosion in the long term. Costs are detailed in part 4 of this document.

Treatment/Activity: S12 Livestock Closures

A. Treatment/Activity Description. The pasture that was burned in the fire would be closed, in part, to livestock grazing until vegetation objectives in the burn area are met. Implementation of BAR Issue 4 would be necessary to repair sections of a existing fence that was damaged by the fire. Permittees would be responsible for keeping their livestock off the recovering and rehabilitated areas in compliance with either grazing decisions or range agreements issued by the Jordan Field Office.

B. How does the treatment relate to damage or changes caused by the fire? Closing the burned portion of the pasture to livestock grazing is essential for soil stabilization and vegetation recovery. Closure would facilitate the recovery of the shrub and herbaceous (forage)

components of the burned plant communities, including perennial grasses, forbs and shrubs. Recovery of plant cover in the burned areas would stabilize the burned landscape and reduce the potential for wind and water erosion.

C. Why is the treatment/activity reasonable, within policy, and cost effective? In accordance with BLM policy and the Southeastern Oregon Resource Management Plan, the burn area would be closed to livestock grazing for at least two growing seasons at a minimum or until desired vegetation has recovered to levels adequate to support and protect upland function. The Jordan Field Office will prepare rangeland agreements or grazing decisions to implement the closure.

ES Issue 3 - Habitat for Federal/State Listed, Proposed, or Candidate Species. The proposed treatment area contains 225 acres of greater sage-grouse habitat previously identified in 2008 as occupied and is within 3.5 – 4 miles of low density greater sage-grouse habitat that was identified by Oregon Department of Fish & Wildlife in July 2011. Seeding sagebrush within the burn area would provide habitat for greater sage-grouse and sagebrush obligate species in the area.

Treatment/Activity: S2 Seeding sagebrush incorporated with drill seeding

A. Treatment/Activity Description. Sagebrush seed would be applied during the drill seeding operation. Approximately 330 acres of public land in the burned area would be seeded with sagebrush seed. Sagebrush seed would be dribbled from a rangeland drill on a 2 or 3 cart drill setup. A tire packer or cultipacker would be trailed behind the rangeland drill to compress the sagebrush seed into the soil surface.

B. How does the treatment relate to damage or changes caused by the fire? The goal of the proposed treatment is to restore sagebrush habitat lost in the fire while stabilizing the site with competitive perennial vegetation. The treatment would stabilize the site by preventing conversion to annual and undesirable species. The treatment area receives from 9 – 12” of precipitation annually.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Sagebrush is one of the most crucial components of the sagebrush steppe. Seeding within the burned area with a seed mix that includes sagebrush at a minimal cost would prevent the loss of this resource. Treatments have been reviewed and are in conformance with the Southeastern Oregon Resource Management Plan (2002). Costs are detailed in part 4 of this document.

ES Issue 4 - Critical Heritage Resources. There have been no cultural resources documented within the fire perimeter to date. Surveys for cultural resources would be required prior to commencing drill seeding activities.

ES Issue 5 - Invasive Plants and Weeds. Cheatgrass, and to a lesser degree, mudsahead are common throughout the burn area. Yellow starthistle, diffuse knapweed, Russian knapweed and Scotch thistle have been treated within the fire perimeter. Halogeton is within the area and whitetop is known to be at the perimeter and near the burn area. Without treatment the area is susceptible to conversion to a site dominated by cheatgrass and other invasive species. Yellow

starthistle and diffuse knapweed are especially aggressive following fires and readily move into cheatgrass ranges. Unless desirable vegetation is established on the burn area, it will be very vulnerable to invasion by invasive and noxious weeds. Other annuals of lesser concern include mustard species, Russian thistle and kochia. Yellow starthistle (*Centaurea solstitialis*), diffuse knapweed (*Centaurea diffusa*), Russian knapweed (*Acroptilon repens*), halogeton (*Halogeton glomeratus*), scotch thistle (*Onopordum acanthium*) and cheatgrass (*Bromus tectorum*) are located either within the burn area or in close proximity to the burned area. Without treatment the area is susceptible to conversion to a site dominated by cheatgrass and other invasive or noxious weed species. The burn area will be vulnerable to invasion until desirable perennial vegetation is established.

Treatment/Activity: S5 Noxious Weed Treatment

A. Treatment/Activity Description. Yellow starthistle (*Centaurea solstitialis*), diffuse knapweed (*Centaurea diffusa*), Russian knapweed (*Acroptilon repens*), scotch thistle (*Onopordum acanthium*), halogeton (*Halogeton glomeratus*) and cheatgrass (*Bromus tectorum*) are located either within the burn area or in close proximity to the burned area. There are various ongoing treatments within the burned area including a grid inventory for and treatment of scattered yellow starthistle plants. Invasive plant and noxious weed seed sources exist on public and private land adjacent to the burn area. Noxious weed inventory and treatment would help to control existing population and reduce the risk of further establishment of noxious weeds. Noxious weed treatment within the burned area would be done in the first year (FY 2012) following the fire under stabilization. In years two (FY 2013) and three (FY 2014), the noxious weeds inventory and treatment would be included as a rehabilitation treatment. Chemical treatment of noxious weed populations, closing the area to livestock and seeding competitive perennial grasses would reduce the likelihood of their spread to new unoccupied areas and help to re-establish higher quality vegetation. Noxious weeds also threaten adjacent private range and agricultural lands. Furthermore, noxious weed infestations have little to no value to livestock and wildlife. They have little value in stabilizing the soil and as with the taprooted starthistle and diffuse knapweed they can actually increase soil loss. Treatment and control of yellow starthistle on this burn is especially important as it is the only known site within the 2.5 million acre Jordan Resource Area.

B. How does the treatment relate to damage or changes caused by the fire? The objective of this treatment is to continue treating previously known infestation sites and identify the spread of noxious weeds in the burned area. The identified weeds are present in the burned area and if not treated, are expected to increase due to the removal of existing vegetation by the Pascual 1 fire. Past treatments in the area have been successful and by continuing to inventory and treat infestation and introductory sites the frequency of noxious weeds is expected to be reduced.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Noxious weed treatments are completed in conjunction with the inventory for effective cost and time management. By continuing ongoing treatments and inventorying for introductory sites in the burned area the treatment is reasonable and will maintain the success of previous treatments. All BLM personnel record and report new noxious weeds as they are found. Noxious weed treatments would be consistent with the guidelines set forth in the ESR handbook (1742-1, pages 34 – 35).

BURNED AREA REHABILITATION ISSUES AND TREATMENTS

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

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

BAR Issue 1 - Lands Unlikely to Recover Naturally. The proposed treatment area was previously identified in 2008 as occupied and is in close proximity to low density greater sage-grouse habitat. Sagebrush has demonstrated a difficulty in self-propagation within low elevation Wyoming big sagebrush range sites. Seeding sagebrush within the burn area would provide habitat for greater sage-grouse and sagebrush obligate species in the area and is covered under ES Issue 3 - Habitat for Federal/State Listed, Proposed, or Candidate Species.

BAR Issue 2 - Weed Treatments. Yellow starthistle (*Centaurea solstitialis*), diffuse knapweed (*Centaurea diffusa*), Russian knapweed (*Acroptilon repens*), halogeton (*Halogeton glomeratus*), scotch thistle (*Onopordum acanthium*) and cheatgrass (*Bromus tectorum*) are located either within the burn area or in close proximity to the burned area. Without treatment the area is susceptible to conversion to a site dominated by cheatgrass and other invasive or noxious weed species. The burn area will be vulnerable to invasion until desirable perennial vegetation is established.

Treatment/Activity: S5 Noxious Weed Treatment

A. Treatment/Activity Description. Yellow starthistle (*Centaurea solstitialis*), diffuse knapweed (*Centaurea diffusa*), Russian knapweed (*Acroptilon repens*), scotch thistle (*Onopordum acanthium*), halogeton (*Halogeton glomeratus*) and cheatgrass (*Bromus tectorum*) are located either within the burn area or in close proximity to the burned area. There are various ongoing treatments within the burned area including a grid inventory for and treatment of scattered yellow starthistle plants. Invasive plant and noxious weed seed sources exist on public and private land adjacent to the burn area. Noxious weed inventory and treatment would help to control existing population and reduce the risk of further establishment of noxious weeds. Noxious weed treatment within the burned area would be done in the first year (FY 2012) following the fire under stabilization. In years two (FY 2013) and three (FY 2014), the noxious weeds inventory and treatment would be included as a rehabilitation treatment. Chemical treatment of noxious weed populations, closing the area to livestock and seeding competitive perennial grasses would reduce the likelihood of their spread to new unoccupied areas and help to re-establish higher quality vegetation.

B. How does the treatment relate to damage or changes caused by the fire? The objective of this treatment is to continue treating previously known infestation sites and identify the spread of noxious weeds in the burned area. The identified weeds are present in the burned area and if not treated, are expected to increase due to the removal of existing vegetation by the Pascual 1 fire. Past treatments in the area have been successful and by continuing to inventory and treat infestation and introductory sites the frequency of noxious weeds is expected to be reduced.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Noxious weed treatments are completed in conjunction with the inventory for effective cost and time management. By continuing ongoing treatments and inventorying for introductory sites in the burned area the treatment is reasonable and will maintain the success of previous treatments. All BLM personnel record and report new noxious weeds as they are found. Noxious weed treatments would be consistent with the guidelines set forth in the ESR handbook (1742-1, pages 34 – 35).

BAR Issue 3 - Tree Planting. N/A

BAR Issue 4 - Repair/Replace Fire Damage to Minor Facilities. The Pascual 1 fire burned approximately 2.5 miles of existing fence (4 strand wire with wood braces, rock jacks and gates) of this approximately 1 mile is in need of replacement. The remaining 1.5 miles was determined to be repairable. During fire suppression activities 2 fences were cut and temporarily fixed. One of the two rock jacks that burned in the fire was replaced by the permittee with the help of an engine crew.

Treatment/Activity: R7 Replacement and Repair of Existing Fence

A. Treatment/Activity Description. One mile of existing fence is in need of repair in order to protect the burn area. This fence separates unfenced parcels of public land that are intermixed with private land. In order to exclude livestock from the burn area this 1.5 mile section of fence needs to be functional.

B. How does the treatment relate to damage or changes caused by the fire? The goal of the treatment is to protect the burn area from grazing impacts to allow recovery of vegetative resources and establishment of seeded species. The temporary fence and fence repair would allow the site to recover while maximizing protection of soil and vegetative resources.

C. Why is the treatment/activity reasonable, within policy, and cost effective? Protection fences would enable the permittees to utilize their grazing preference until vegetative objectives are met. These fences would be effective in eliminating livestock from the burned areas. Treatments have been reviewed and are in conformance with the Southeastern Oregon Resource Management Plan (2002). Monitoring is detailed in part 6 of this document. The treatment is cost and resource effective, would allow the site to stabilize and would minimize erosion in the long term. Costs are detailed in part 4 of this document.

PART 3 – DETAILED TREATMENT COST TABLE

Action /Spec. #	Planned Action	Unit	Unit Totals	FY 11	FY12	FY13	FY14	Total Cost
S-1	Plan Preparation/Project Management							
	Labor	WMs	0.25	\$2,000	\$2,000	\$2,000	\$2,000	\$8,000
	TOTAL			\$2,000	\$2,000	\$2,000	\$2,000	\$8,000
S2	Drill Seeding							
	Labor	days	20		\$27,000			\$27,000
	Travel/Vehicles	days	20		\$13,000			\$13,000
	Equipment Rental (DRILLS)	acre	800		\$4,600			\$5,000
	Seed Purchase	pounds	6,400		\$20,300			\$20,300
	Seed Mixing and Storage	fees			\$1,300			\$1,300
	Cultural Clearance	acres	300		\$6,000			\$6,000
	TOTAL				\$72,000			\$72,000
S5	Noxious Weeds							
	Weed Inventory (labor)	days	5		\$2,500			\$2,500
	Weed Inventory (vehicle, travel)	days	5		\$2,500			\$2,500
	Chemical Treatment (Herbicide)	acres	250		\$25,000	\$10,000	\$5,000	\$40,000
	TOTAL				\$30,000	\$10,000	\$5,000	\$45,000
S7	Protective Fence/Gate							
	Fence Materials	mile	3		\$10,500			\$10,500
	Fence labor/vehicles	mile	3		\$10,500			\$10,500
	Fence removal	mile	3				\$8,000	\$8,000
	TOTAL				\$21,000		\$8,000	\$29,000
S12	Livestock Closure							
	Labor	WMs	.5		\$4,000			\$4,000
	TOTAL				\$4,000			\$4,000
S16	Monitoring							
	Labor	days	4		\$6,000	\$6,000	\$6,000	\$18,000
	Travel/Vehicles	days	4		\$3,000	\$3,000	\$3,000	\$9,000
	TOTAL				\$9,000	\$9,000	\$9,000	\$27,000

Action /Spec. #	Planned Action	Unit	Unit Totals	FY 11	FY12	FY13	FY14	Total Cost
R7	Fence Replacement/Repair							
	Fence Materials	mile	1		\$3,500			\$3,500
	Fence labor/vehicles	mile	1		\$3,500			\$3,500
	TOTAL				\$7,000			\$7,000
	S TOTAL			\$2,000	\$145,000	\$21,000	\$24,000	\$192,000

PART 4 – SEED LISTS

DRILL SEED –

Grass Species

Species	% PLS	PLS Seeds/sq.ft	PLS Seeds/ac.	Seeds/lb (bulk)	Total Seeds/Acre (Bulk)	Drill Seeding [Acres]	Lbs / Acre	Total Lbs.	Cost / Lb.	Total Cost
Siberian Wheatgrass	0.75	15.15	660,000	220,000	880,000	800	4	3,200	\$1.84	\$5,888
Bluebunch Wheatgrass	0.75	7.23	315,000	140,000	420,000	800	3	2,400	\$4.50	\$10,800
Basin Wildrye	0.75	2.58	112,500	150,000	150,000	800	1	800	\$4.50	\$3,600
TOTALS		29				800	8	6,400	\$10.84	\$20,288

Sagebrush Seeding applied at same time as Drill Seeding

Species	% PLS	PLS Seeds/sq.ft	PLS Seeds/ac.	Seeds/lb (bulk)	Total Seeds/Acre (Bulk)	Seeding [Acres]	Lbs / Acre	Total Lbs.	Cost / Lb.	Total Cost
Wyoming Big Sage	0.11	6.31	275,000	2,500,000	2,500,000	330	1	330	11.10	\$3,663
TOTALS		6.3				330	1	330	11.10	\$3,663

PART 5 - NATIVE/NON-NATIVE PLANT WORKSHEET

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

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

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

Yes No

Rationale: The native seed proposed for seeding has already been reserved and will be available when conditions exist for seeding. Most of the native seed is available locally.

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: Although, more expensive than the non-native component of the seed mix, the cost and quality of the proposed native seed has been reasonable in the past.

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: Seed germination and establishment is dependent on favorable environmental conditions which cannot be guaranteed since the site receives 9 – 12” of precipitation annually. Competition from invasive annual grass species and noxious weeds continues to be a concern, but without treatment the chance of conversion to an annual rangeland site exists.

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: Livestock grazing would be excluded for two growing seasons from all treated areas. Once grazing use is authorized within the treatment the pasture will be grazed using the current two year deferred rotation grazing system. The current livestock management practices have maintained vigorous seeding conditions as noticed in the Resource Advisor report provided by Garry Brown.

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

1. Is the use of non-native plants necessary to meet objectives, e.g., consistent with applicable approved field unit management plans?

Yes No

Rationale: Non-native seeding is proposed in conjunction with native grass species to ensure establishment of competitive perennial vegetation that has the ability to compete with annual grasses. The treatment area has previously been seeded with Siberian wheatgrass (*Agropyron fragile*) and the pasture is classified as a seeding. No restrictions exist that would preclude seeding of non-native perennial vegetation within the treatment area.

2. Will non-native plants meet the objective(s) for which they are planted without unacceptably diminishing diversity and disrupting ecological processes (nutrient cycling, water infiltration, energy flow, etc.) in the plant community?

Yes No

Rationale: The non-native plants would aid the burn area in recovery by re-establishing perennial vegetation. This would not diminish

diversity or disrupt the ecological processes since the treatment area was dominated by crested wheatgrass (*Agropyron cristatum*) prior to the fire.

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

Yes No

Rationale: The proposed seed mix contains both non-native and native grass species in order to discourage a mono-culture of non-native perennial grasses. The species selected do not interbreed with each other.

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

Non-Native Plants	
Siberian wheatgrass	(<i>Agropyron fragile</i>)
Native Plants	
Basin wildrye	(<i>Leymus cinereus</i>)
Bluebunch wheatgrass	(<i>Pseudoroegneria spicata</i>)
Wyoming big sagebrush	(<i>Artemisia tridentata</i>)

PART 6. – COST-RISK ANALYSIS

A. Probability of Treatments Successfully Meeting Objectives

Action/Spec. #	Planned ES Action (LF20000ES)	Unit (acres, WMs, number)	# Units	Total Cost	% Probability of Success
S2	Ground Seeding	Acres	800		80%
S5	Noxious Weeds	Acres	1400		90%
S7	Fence/Gate/Cattleguard	Miles	3		95%
S12	Closures (OHV, livestock, area)	#	1		90%
TOTAL COSTS:					

Action/Spec. #	Planned BAR Action (LF32000BR)	Unit (acres, WMs, number)	# Units	Total Cost	% Probability of Success
R5	Noxious Weeds	Acres	1400	\$15,000	95%
R7	Fence/Gate/Cattleguard	Miles	1		90%
TOTAL COSTS:					

B. Cost Risk Summary

Weed Treatments

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: Recovery of residual perennial grasses and the establishment of desirable perennial species on areas that contained yellow rabbitbrush and sagebrush prior to the fire would meet resource objectives to stabilize soils and restore ecological function.

No Action Yes No Rationale for answer: Failure to treat invasive and noxious weed species would result in a significant increase of annual dominated rangeland and loss of potential sage steppe plant communities.

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

Proposed Action Yes No Rationale for answer: Weed control would be done by selective herbicide application and impacts to non-target vegetation are expected to be low.

No Action Yes No Rationale for answer: Failure to treat invasive and noxious weed species would result in decreased ecological function and increased fire frequency with a greater risk to life and personal property due to an increased dominance within the burn area. Additionally, the No Action alternative has a low probability of successfully stabilizing soils, preventing the spread of invasive and noxious weeds and providing for the long term health of the rangeland resources.

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 or **No Action**

Comments: The proposed action is the only option that would adequately address the resource threats and meet the identified objectives.

Temporary Fence Construction, Permanent Fence Repair and Livestock Closure

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: Construction of a temporary fence and closure of the burn area would allow livestock to

continue to graze within the unburned portion of the pasture while providing ample time for the treatment area to recover.

No Action Yes No Rationale for answer: No action would create an undue hardship on the permittee by necessitating the closure of an additional 14,500 acres within the pasture that was unburned by the Pascual 1 fire.

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

Proposed Action Yes No Rationale for answer: Livestock closure by construction of a temporary fence and repairing existing fence would allow livestock to continue to graze within the burned pasture, but provide ample time for the burned area to recover.

No Action Yes No Rationale for answer: Livestock grazing impacts and the potential invasion of non-native annual and noxious weeds would result in decreased ecological function that could result in the irretrievable and irreplaceable loss of soil resources through erosion if the burn area is not closed under the no action.

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 or **No Action**

Comments: Protective temporary and reconstructed permanent fence damaged during the fire would exclude livestock from the treatment area aiding in the establishment of desirable vegetation and would allow resource objectives to be achieved.

Seeding Sagebrush, Rehabilitation Weed Treatments

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: Seeding sagebrush in conjunction with drill seeding would aid in the reestablishment of desirable vegetation in the burn area at a minimal cost. Treating invasive annual and noxious weed species would protect habitat for sagebrush obligate species and reduce competition between desirable vegetation and noxious weeds.

No Action Yes No Rationale for answer: No action would create a loss of sagebrush habitat. Failure to treat invasive annuals and noxious weeds would result in a larger infestation instead of isolated treatable areas.

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

Proposed Action Yes No Rationale for answer: Seeding sagebrush with a cultipacker behind a rangeland drill is the most cost effective way to restore sagebrush habitat. Treating existing and inventoried populations of noxious weeds would reduce the spread between public and private land.

No Action Yes No Rationale for answer: No action would result in a loss of native species and habitat for wildlife creating a greater long term cost.

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 or **No Action**

Comments: The proposed action is the most cost effective and is the sole alternative that would meet rehabilitation objectives. Seeding sagebrush would provide habitat for sagebrush obligate species at a minimal additional cost up front creating a higher long term benefit.

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				✓	
Weed Invasion					✓
Unacceptable Loss of Vegetation Diversity					✓
Unacceptable Loss of Vegetation Structure				✓	
Unacceptable Disruption of Ecological Processes					✓
Off-site Sediment Damage to Private Property			✓		
Off-site Threats to Human Life	✓				
Other-loss of Access Road Due to Plugged Culverts			✓		

Proposed Action - Treatments Successfully Implemented (check one)

Resource Value	N/A	None	Low	Medium	High
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Unacceptable Loss of Topsoil			✓		
Weed Invasion			✓		
Unacceptable Loss of Vegetation Diversity			✓		
Unacceptable Loss of Vegetation Structure			✓		
Unacceptable Disruption of Ecological Processes			✓		
Off-site Sediment Damage to Private Property			✓		
Off-site Threats to Human Life	✓				
Other-loss of Access Road Due to Plugged Culverts			✓		

PART 7 – MONITORING PLAN

Implementation Monitoring: This monitoring is the responsibility of the Vale District ESR Implementation Lead or designee. Monitoring of implementation would be accomplished by determining whether or not specific activities identified in this plan were actually implemented as planned. Items to be monitored include, but are not limited to, dates of actual treatment implementation, seed utilized, GPS data gathering of actual treatment unit perimeters and structures (fences, etc.), and documenting any deviations from planned activities including a justification for the deviation.

Effectiveness Monitoring: This monitoring is the responsibility of the Vale District ESR Monitoring Lead or designee. Effectiveness monitoring would be completed on identified stabilization activities within this plan using a variety of methods, including but not limited to vegetative monitoring protocols.

Drill Seeding

1. The objective of the drill seeding is to prevent erosion by reducing bare ground and establishing desirable perennial vegetation. The specific monitoring objectives to determine success are: 1) by the end of the third growing season following implementation of the seeding the density of perennial seeded species is at least 1.5 plants per square meter (m²). 2) by the end of the third growing season following implementation of the seeding the total percent cover (live plants, litter, standing dead plant material, and gravel/rock) value is within is at least 90% of that on a similar, unburned range site (i.e., similar precipitation zone, soil type and land form).
2. Implementation would be monitored by site visits of treated areas by Vale District Fire Rehab Implementation Designee.
3. Effectiveness would be monitored annually at the appropriate time to measure seed production, percent bare-ground, and perennial grass frequency through site visits using a variety of methods, including but not limited to vegetative monitoring

protocols (FIREMON, USGS protocols in development, etc). The study plots consist of 3 separate 100M transects radiating from a central hub. Each transect would consist of 100 points (at 1M intervals) in which plant cover is sampled using a vertically placed pin, whereby the ground level or basal hit is recorded at or below a 1-inch height, along with any live vegetation above that intersect the pin. Density of desirable perennial grasses, shrubs and forbs would be gathered using a 1M X 1M frame spaced at 5 meter intervals along each transect. Ten (10) total plots would be read along each transect

Noxious Weed Treatment

1. The objective of the weed treatment is to prevent the increase of existing weed populations and the establishment of additional noxious weed species within the burn area until desirable vegetation can re-establish. Initial treatment should kill and/or control from 90% to 100% of targeted weed populations, depending upon type of weed and/or density of infestation. Retreatment by spot spraying is desirable on remaining weeds.
2. Implementation would be monitored by site visits of treated areas by herbicide contract COR/PI (weed personnel).
3. Effectiveness would be monitored by site visits to treated areas by herbicide contract COR/PI (weed personnel). Noxious weed infestations are generally small and widely scattered, therefore effectiveness in most cases would be measured by presence or absence of weeds. Treatment effectiveness on larger infestations would be determined either by stem counts or density of stand, depending upon weed physiology, i.e., 10 plants per acre of Scotch thistle or 1 plant per square yard of perennial pepperweed. Weed treatments would be monitored on a timetable commensurate with the type of chemical used.

Protective Fence, Livestock closure

1. The objective of the protective fence treatment and livestock closure is to protect the burn area from grazing impacts to allow recovery of vegetative resources. The fencing would allow site recovery while maximizing protection of soil and vegetative resources. The protective fence would be removed when adequate recovery of resources is achieved following a minimum two full growing seasons of full rest.
2. Implementation would be monitored by site visits by primarily range staff with some assistance from other Vale District personnel. During use supervision, BLM would monitor the temporary protective fences to ensure that they are constructed before livestock turnout, and are effective and properly functioning to keep livestock out of the burned areas. Any unauthorized use occurring on the burn area would be properly

documented and steps would be taken to insure that it does not continue.

3. BLM personnel would annually monitor the recovery of the vegetation in the burned areas to measure the following objectives: above ground plant cover (%), regardless of species, is at least 90% of that on a similar, unburned range site (i.e., similar precipitation zone, soil type and land form). Above ground plant cover is the amount of ground covered by the vertical canopy projection of grasses, forbs and shrubs, including standing dead and fallen litter. Effectiveness would be monitored annually at the appropriate time using a variety of methods, including but not limited to vegetative monitoring protocols (FIREMON, USGS protocols in, etc.)

Sagebrush Seeding

1. The objective of the shrub seeding is to restore habitat for sage grouse and sagebrush obligate species. The objective by the end of the third growing season is to have a density of sagebrush of at least 1 sagebrush plant per 9 square meters (m²).
2. Implementation would be monitored by site visits in conjunction with monitoring being conducted for stabilization treatments
3. Effectiveness would be monitored annually in conjunction with monitoring of stabilization treatments at the appropriate time to measure percent bare-ground, and perennial shrub frequency through site visits using a variety of methods, including but not limited to vegetative monitoring protocols (FIREMON, USGS protocols in development, etc.). The study plots consist of 3 separate 100M transects radiating from a central hub. Each transect would consist of 100 points (at 1M intervals) in which plant cover is sampled using a vertically placed pin, whereby the ground level or basal hit is recorded at or below a 1-inch height, along with any live vegetation above that intersect the pin. Density of desirable perennial grasses, shrubs and forbs would be gathered using a 1M X 1M frame spaced at 5 meter intervals along each transect. Ten total plots would be read along each transect.

Reporting: Annual monitoring summaries of findings and recommendations would be submitted to the Oregon State Office ESR Coordinator and Field Office Manager for inclusion into the official project file.

PART 8 – MAPS

1. Fire Vicinity and Perimeter Map
2. Proposed Drill Seeding Treatment Areas
3. Temporary Protection Fence and Existing Fences in need of Repair

PART 9 – REVIEW, APPROVALS, and PREPARERS

TEAM MEMBERS

Position	Team Member	Agency/Office	Initial and Date
ID Team Lead	Aimee Huff	BLM/JFO	/s/ AH 8/30/2011
Soil Scientist/ Hydrologist	Linus Meyer	BLM/JFO	/s/ LM 8/30/2011
Cultural Resources/ Archeologist	Don Rotell	BLM/Fire	/s/ DR 8/26/2011
Rangeland Mgt. Specialist	Aimee Huff	BLM/JFO	/s/ AH 8/26/2011
Outdoor Recreation Planner	Kari Frederick	BLM/JFO	/s/ KAF 8/29/2011
Wildlife Biologist	Garth Ross	BLM/JFO	/s/ GRR 8/26/2011
Weeds Specialist	Lynne Silva	BLM/MFO	/s/ LS 8/29/2011
Fire Management Specialist	Brian Watts	BLM/Fire	/s/ BW 8/26/2011

PLAN APPROVAL

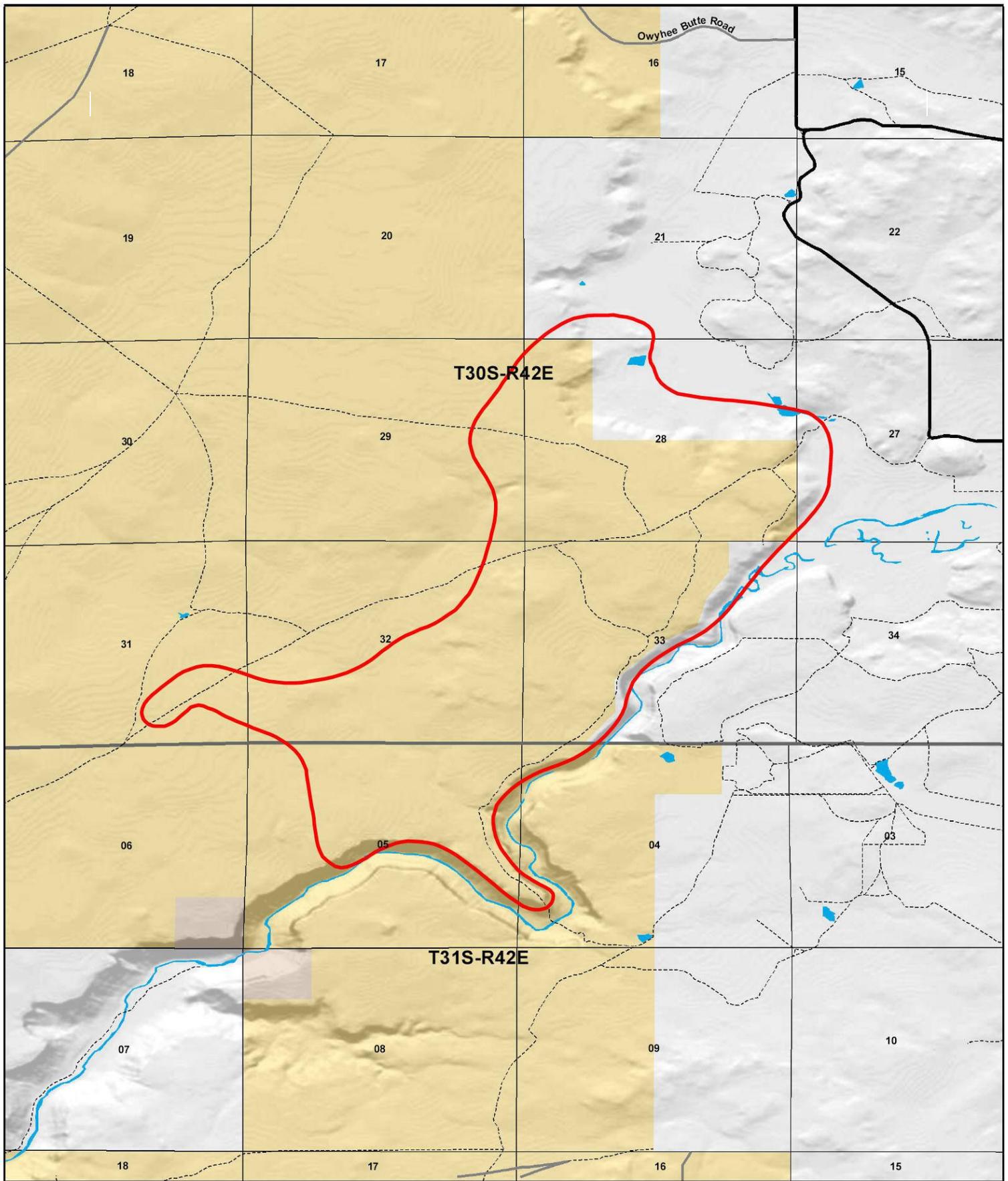
“The Agency Administrator is responsible for developing, implementing, and evaluating emergency stabilization and rehabilitation plans, treatments, and activities.” 620 DM 3.5C




 JORDAN FIELD 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.



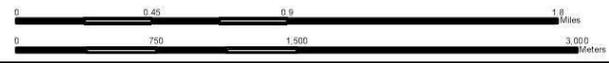
- Legend**
- Fire Perimeter
 - County Road
 - Bureau of Land Management
 - BLM Road
 - Other Federal
 - Other Route
 - Private

1:40,000

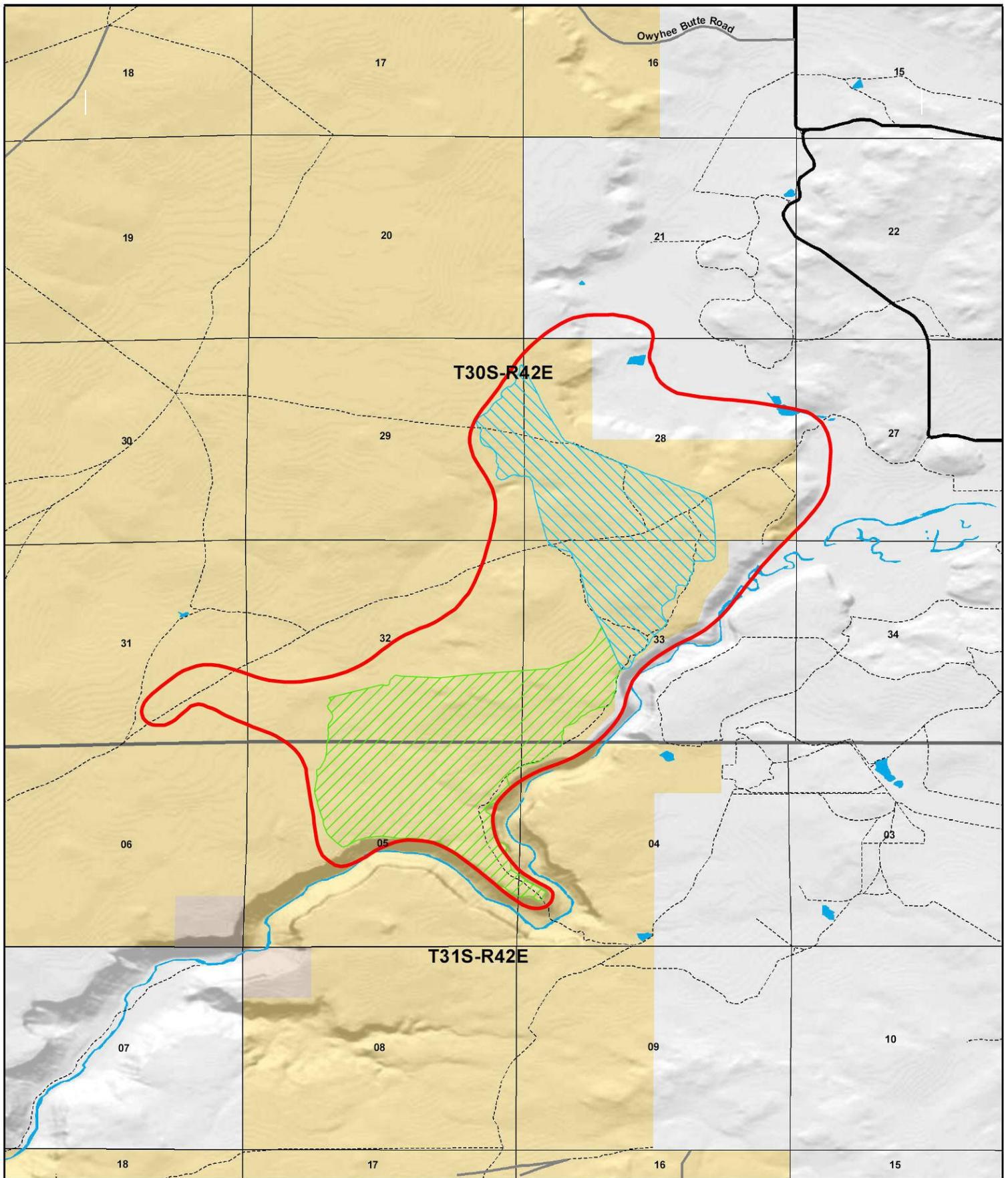


U.S. Department of Interior
Bureau of Land Management
Vale District
August 25, 2011

**Map 1:
Pascual 1 Fire Vicinity Map**



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- Legend**
- Fire Perimeter
 - County Road
 - Bureau of Land Management
 - Proposed Drill Seeding Location
 - BLM Road
 - Other Federal
 - Seeding
 - Other Route
 - Seeding/Sage
 - Private

1:40,000



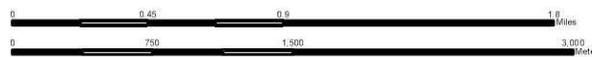
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Bureau of Land Management

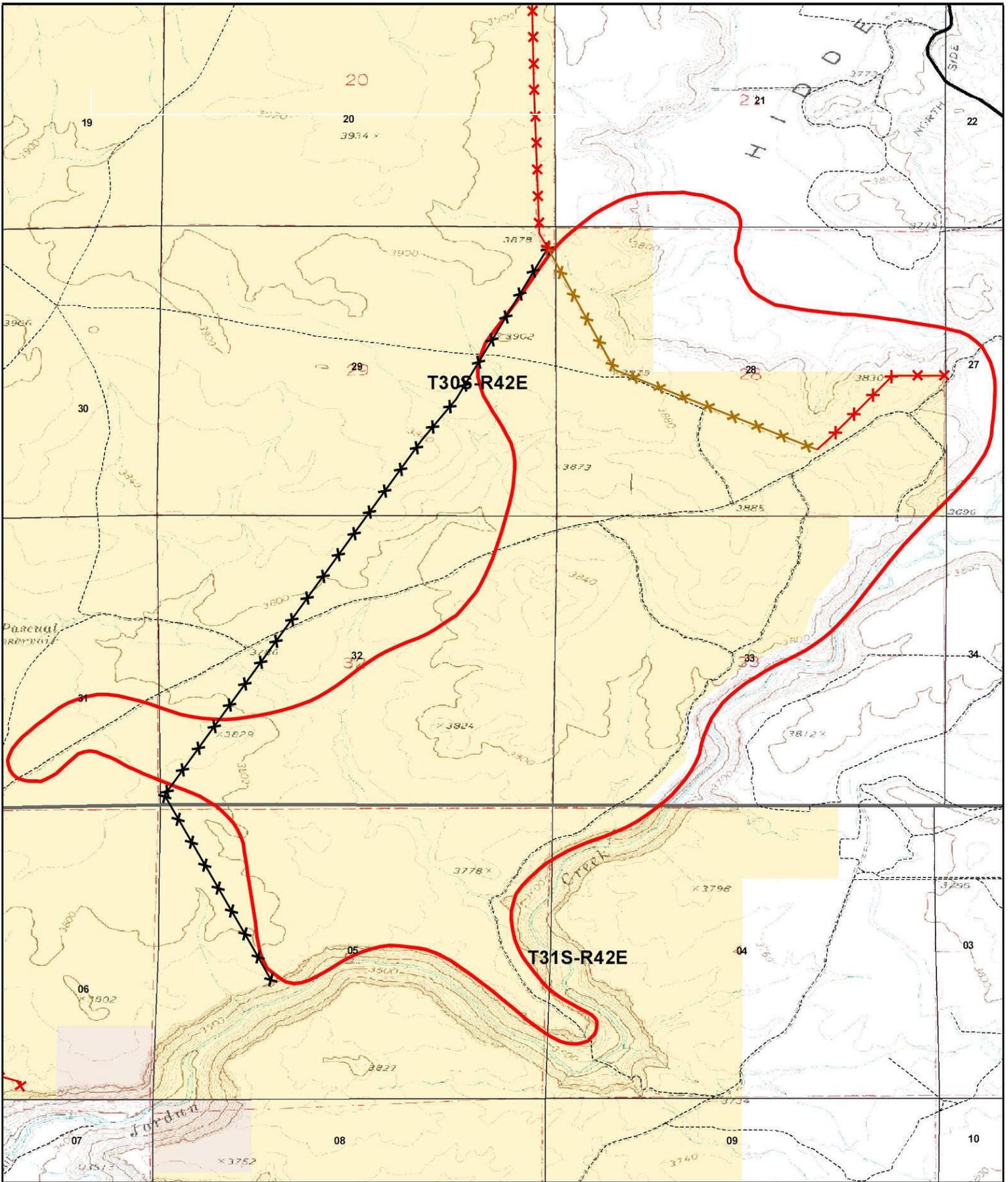


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Map 2:
Pascual 1 Fire Proposed Drill Seeding





- Legend**
- Fire Perimeter
 - County Road
 - Bureau of Land Management
 - Existing Fence
 - BLM Road
 - Other Federal
 - Existing Fence Repair
 - Other Route
 - Private
 - x
 Temporary Fire Fence

1:28,000



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Map 3:
Pascual 1 Fire Temporary Fence

