United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Vale District Office
100 Oregon Street
Vale, Oregon 97918
http://www.or.blm.gov/Vale/

IN REPLY REFER TO:
1742

Dear Interested Party:

A lightning storm ignited the the Jackies Butte Fire (N157), Bowden Fire (N158) and the Jordan Creek Fire (N160) on August 9, 2001. Wildfire burned 67,052 public land acres in the: Dry Creek Native, Dry Creek Seeding, and Indian Fort Pastures of the Jackies Butte Allotment (#1101), Jackies Butte Winter Allotment (#01103), Bowden Hills Allotment (#0803); Winter Area North Pasture of the Eiguren Allotment (#11305); all within the Jordan Resource Area, Vale District. The Jordan Creek Fire burned about 1,530 acres of public land and 850 acres of private land in the Arock Pasture of the West Cow Creek Allotment (#20902), Jordan Resource Area, Vale District. As a consequence, the Jordan Field Office developed the Jackies Butte/Jordan Creek Emergency Fire Rehabilitation Plan/Environmental Assessment (EA No. OR-030-01-017).

The proposed action would seed approximately 1,500 acres of the Jordan Creek Fire and 33,787 acres of the Jackies Butte Fire for a total of 35,287 acres, with a non-native seed mix using rangeland drills. Additionally in the Jackies Butte Fire, 4,500 acres in three selected areas would be aerially seeded with Wyoming big sagebrush. The sagebrush would be flown on after the seed mix is drilled and then would be pressed with a wheeled culti-packer. Also, in the Jackies Butte Fire, forage kochia would be seeded in 200 foot wide strips along identified roads and fencelines to create a vegetative fuel break (green strip) The green strip would include a total of 1,070 acres.

Livestock grazing would be excluded from the burned areas for at least two growing seasons or until sufficient establishment has accurred to allow grazing to resume. If the vegetation in the burned areas respond with vigorous growth, stooling and production, and demonstrate existing exceptional health, livestock grazing may be allowed (at BLMs discretion) to occur after seed ripe of the first growing season. Livestock grazing would be excluded from burned areas by constructing 35 miles of temporary electric fences.

On September 24, 2001 a Finding of No Significant Impact was signed, along with the Decision Record, to implement this emergency action. This decision is issued as a final decision, and seeding is expected to begin on or around October 15, 2001. If you have any questions or would like to review EA OR-030-01-017, please contact the Jordan Field Office Manager at the above address or (541)473-3144. Also, refer to the Vale BLM website at http://www.or.blm.gov/Vale/Planning/Planning-EnvirnAnalyses.htm.

Sincerely,

S/Jerry L. Taylor

Jerry L. Taylor
Jordan Field Office Manager

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Vale District Office

INTERDISCIPLINARY TEAM REVIEW RECORD

AD/CE/EA Number EA-OR-030-01-017 Date Submitted for Comment 9/14/01 Complete Review_____
Proposed Action: Emergency Fire Rehabilitation
Proposed Name(s) EFR Jackies Butte /Jordan Creek Fire
Project Leader(s) Andy Bumgarner
INSTRUCTION: Route through your immediate supervisor first.

T	NAME/DISCIPLINE	Date Reviewed	INITIALS	REVIEW COMMENTS
	(Range & Wildhorses) **MILES**	9/14/01	s/TM	
	(Vegetation) **MILES**	9/14/01	s/TM	
	(Botany & T&E Plants) **FINDLEY**	9/17/01	s/JF	
	(ACEC/Research Natural Areas)			
	(Wildlife & T&E Animals) **SADOWSKI**	9/14/01	s/JS	
	(Fisheries) **TAIT**	9/17/01	s/CKT	
	(Soil/Water/Air) **WENDEROTH**	9/17/01	s/JRW	
	(Geology/Minerals)			
	(Cultural) **WILSON**	9/17/01	s/MW	
	(Lands & Realty)			
	(Recreation/Wild & Scenic River) **CHRISTENSEN**	9/17/01	s/TC	
	(Wilderness) **CHRISTENSEN**			
	(Fire Management) **HARTWELL**	9/17/01	s/MHH	
	(Engineering & Force Acct.)	9/24/01	s/DDE	
	(Noxious Weeds) **Erstrom**	9/17/01	s/JE	
	(Range) MILES	9/18/01	s/TM	
	(P&E Coordinator) **MILES**	9/19/01	s/TM	
	(Project Leader) **BUMGARNER/MILES**	9/21/01	s/TM	FINAL EA & FONSI/DECISION RECORD PREPARATION
	Area Manager	9/24/01	S/jt	FINAL EA REVIEW & FONSI/DECISION RECORD (Signature) s/Jerry Taylor
	P&E Coordinator			FINAL REVIEW & FILING

This page is to be filed with the
AD/CE/EA & FONSI/DECISION RECORD
OR-030-1790-1 (Dec. 91)

Jackie Butte/Jordan Creek Emergency Fire Rehabilitation Plan (N157,N160)
Environmental Assessment
EA No. OR-030-01-017

I. PURPOSE AND NEED

A. Background

On August 9, 2001 a lightning storm ignited two fires which burned together on the same date, the Jackies Butte Fire (N157) on the south side of Jackies Butte and the Bowden fire (N158) in the vicinity of the Bowden Ranch (map 1a). In addition another fire started near the confluence of Jordan Creek and the main Owyhee River (map 1b). The Jackies Butte fire burned 67,052 public land acres in the: Dry Creek Native Pasture, Dry Creek Seeding, and Indian Fort Pasture of the Jackies Butte Allotment (#1101), Jackies Butte Winter Range (#01103), Bowden Hills Allotment (#0803), Winter Area North Pasture of the Eiguren Allotment (#11305), Jordan Resource Area, Vale District. The Jordan Creek fire burned about 1,530 acres of public land and 850 acres of private in the Arock Pasture of the West Cow Creek Allotment (#20902), Jordan Resource Area, Vale District.

Frequent wildfire and historic grazing has eliminated shrub and native grass species from a large block of public land that historically has been wild horse range (Dry Creek Native Pasture only), critical big game winter habitat and sage grouse habitat in the Jackies Butte Allotment. Most of the burned areas are in an early seral stage dominated by annual species (cheatgrass, pepperweed, tumble mustard and Russian thistle). Sagebrush and native grass have been replaced by cheatgrass resulting in a short fire-return interval (3.4 years for large fires). Small acreage fires have periodically burned the Jackies Butte area (i.e., North Caviatta Fire 1999 - 550 acres) with large fires occurring in 1983 (53,518 ac.), 1985 (32,497 ac.), 1986 (8,500 ac.), 1995 (36,046 ac.), 2000 (18,158 ac.), and lastly 2001 (67,052 ac.). Wildfire has eliminated shrub and native grass in the Arock pasture of the West Cow Creek Allotment (area of the Jordan Creek Fire), however, at a much smaller scale than in Jackies Butte

The Jackies Butte Fire rate of spread was high resulting from erratic winds, low relative humidity and dry fine fuel conditions. Because of a relatively low fire line intensity on the north flank, much of the cheatgrass seed duff layer remains in-tact. However, the southern flank burned hotter thus resulting in much of the cheatgrass duff layer being removed. Within the fire perimeter (67,052 acres), about 2% of the vegetation remains in unburned islands. Fire suppression activities were extensive consisting of 4 heavy air tankers, 2 helicopters, 2 small aircraft, 6 dozers, 3 grader, 9 tenders, numerous type 4 engines, numerous type 6 engines, and resource/support vehicles. This fire was turned over to a type II team (Central Oregon Interagency Incident Management Team) on August 11, 2001. The Jordan Creek Fire rate of spread was also high resulting from erratic winds, low relative

humidity and dry fine fuel conditions. However, the fire was not as hot and the cheatgrass duff layer remains mostly in-tact.

B. Purpose and Need

The purpose of the rehabilitation effort is to establish adapted perennials in order to: stabilize soils with adapted perennials, prevent re-invasion of cheatgrass, reduce fire frequency, establish a perennial forage base for wild horses, wildlife and livestock, and re-establish a shrub cover in certain areas for multiple rooting depth and wildlife habitat. Boundary fences needs to be restored for protection and the road damage must be repaired for public access, safety, and decreased soil erosion.

The rehabilitation effort would be protected by closing the burned areas within all of the pastures to livestock grazing for a minimum of two growing seasons. It is standard practice to close burned areas and particularly seedings to livestock grazing to facilitate recovery. The closure of the burned areas would be accomplished through temporary electric fencing and the use of riding and control of water to prevent substantial livestock use in the burned areas.

In regards to the Jackies Butte Fire, wild horses present a unique challenge in terms of dealing with the recovery process of these areas. In October of 2000 a emergency horse gather was conducted resulting from the White Mule Fire. The gather reduced the herd size to 37 animals and as of August 28, 2001 there are 47 animals. This temporary reduction of the herd size will balance with existing forage and water to provide adequate protection for plant establishment and still retain a viable herd.

II. CONSISTENCY WITH LAND USE PLANS

The proposed rehabilitation effort is consistent with the preferred Land Use Alternative for the Southern Malheur Management Framework Plan (MFP) (1983) and the Southern Malheur Rangeland Program Summary (RPS) (1984).

III. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

Objectives for the Jackies Butte/Jordan Creek Fire Rehabilitation Plan are as follows:

1. Stabilize soils and reduce future fire hazards in cheatgrass dominated areas by reducing the re-establishment of annual grasses and weeds, through seeding adapted non-native species. Protect the rehabilitation effort by excluding livestock grazing in the native and seeded burned areas within the pastures for at least two growing

seasons (i.e. first full year and until seed ripe the second year). Allow limited livestock grazing on established crested wheatgrass seedings that were burned after seed ripe the first year if vigor and health of the seeding has recovered by that time.

2. Restore vegetative structure, increase effective precipitation by capturing and holding snow during the winter months by establishing a deep rooted shrub component in some selected areas in the plant community.

3. Within Jackies Butte fire only, reduce future burned acreage by establishing 44 miles x 200 foot strips of non-native vegetation as vegetative fuel breaks (map 2). This non-native vegetation would buffer weed invasion and most importantly, retard future wildland fire spread. It would also provide a highly palatable forage for big game, wild horses, and cattle.

4. Restore the boundary fence for protection of the seedings and burned area.

5. Repair 50 miles of damaged road for public access, safety, and decreased soil erosion. This would be accomplished by grading the surface in the spring of the year after the disturbed soil has settled from the winter precipitation. Also due to the underlaying silty-loam soils, gravel would have to be imported to certain portions of the road to fill and cover these highly erosive soils (map 3).

The proposed action would be to seed approximately 1,500 acres of the Jordan Creek Fire and 33,787 total acres in the Jackies Butte Fire for a total of 35,287 acres with a non-native seed mix using rangeland drills. A non-native worksheet is attached as Appendix 1. Additionally in the Jackies Butte Fire, 4,500 acres in three selected areas would be aerially seeded with Wyoming big sagebrush at a rate of one pound (bulk rate) per acre (8-10% PLS). The sagebrush would be flown on after the seed mix is drilled and then would be pressed with a wheeled culti-packer. See map 4a and 4b for seeding areas. Also in the Jackies Butte Fire Forage kochia would be aerially seeded at a rate of 0.7 lbs. per acre in 200 foot wide strips along the areas depicted in map 2. The non-native vegetation strip would include a total of 1,070 acres. The proposed seed mixes are listed below:

Species*	Pounds per acre	Total Pounds	Approx. Cost per pound	Total Cost
Non-native Mix: 35,287 acres (drill) (Jordan Creek Fire and Jackies Butte Fire)				
Crested wheatgrass (Siberian/Fairway)	5	176,435	$ 1.50	$264,653.00
Russian wildrye	1	35,287	$ 3.00	$105,861.00
Apar, Lewis Flax	0.5	17,644	$ 8.50	$149,974.00

Species*	Pounds per acre	Total Pounds	Approx. Cost per pound	Total Cost
White Yarrow	0.5	17,644	$ 9.00	$158,796.00
Non-Native Vegetation Strip Mix: 1,070 acres (aerial) (Jackies Butte Fire only)				
Forage kochia	0.7	749	$ 20.00	$ 14,980.00
Sagebrush Seeding 4,500 acres (aerial) (Jackies Butte Fire only)				
Wyoming Big Sagebrush	1	4,500	$ 5.00	$ 22,500.00
TOTAL		**252,259**		**$716,764.00**

* Species type and mixture is subject to seed availability.

The non-native mix would be used in the flatter, early seral stage areas that are dominated by annual species with little or no native perennials remaining. The sagebrush would be seeded in three selected areas. The non-native vegetation strip would be located along the roads and fences depicted in map 2.

Livestock grazing would be excluded from the burned areas in the Arock pasture of the West Cow Creek Allotment, the Dry Creek Seeding, Dry Creek Native, Winter Area North Pasture, and Bowden Allotment for at least two growing seasons or until sufficient establishment has occurred to allow grazing to resume. If the seeded areas respond with vigorous growth, stooling, and production and have exceptional health, then livestock grazing may be allowed (at BLMs discretion) to occur after seed ripe of the first growing season. Livestock grazing would be excluded from these burned areas within these pastures by constructing 35 miles of temporary electric fences (map 5a and 5b). These electric fences would have two-three strands of high shock cable which has a breaking strength of 500 pounds. This would allow breakage in the case of a wild horse/wildlife being entangle thus reducing risks to animals.

In addition to the burned areas in the Dry Creek Native Pasture approximately 15,000 acres of unburned areas would be fenced off from livestock grazing for at least two years unless other wise decided by the BLM. This unburned land is considered preferred wild horse range and contains some well used watering holes preferred by the wild horse herd. It would be important and necessary to make sure all of the wild horse herd is contained on the north west side of this temporary electric fence upon construction. For fence location refer to map 5a.

The burned area in the Indian Fort Pasture would not be fenced but would be protected by not turning on any water troughs on the Crows Nest Pipeline within two miles of the burned area. This measure along with frequent riding would all but eliminate most grazing from the burned area. This area would be protected for two growing seasons unless certain criteria are met as stated above. If this protective

measure is not successful, closure of the entire pasture or construction of a temporary fence would occur.

The Jackies Butte Winter Range would not be fenced and grazing would be excluded until after seed ripe of the second growing season, unless certain circumstances are met as mentioned above. Due to the amount of land burned within the allotment and the lack of water sources it is not feasible to temporarily fence. So the Jackies Butte Winter Range would be temporarily closed.

The Jackies Butte Wild Horse herd numbers (47) are sufficient to: a) maintain a viable population, b) balance forage and water availability to population numbers, and c) protect rehabilitation efforts and burned areas.

Monitoring of the burn area would be conducted. This would include monitoring utilization by wild horses, weed monitoring, and vegetation monitoring.

B. Alternative 1

No Action

No emergency rehabilitation and no protection would be done.

C. Alternative 2

Rehabilitation effort would remain the same as the proposed action except for the addition of forage kochia to the aerial seeded sage brush mix and protection of all the burned areas with temporary electric fencing.

Rehabilitation efforts would consist of seeding the areas described in the proposed action. However 4,500 acres of Wyoming big sage brush and forage kochia would be aerially seeded together. Also all burned areas would be protected by temporary electric fences. The remaining unburned forage in the Arock pasture, Dry Creek Native Pasture, Dry Creek Seeding, Jackies Butte Winter Range, Indian Fort Pasture, Winter Area North Pasture, and Bowden Allotment would be grazed by livestock.

D. Other Alternatives Considered But Eliminated From Further Analysis

1. Same as the proposed action except temporary fencing within the preferred wild horse range (Dry Creek Native Pasture) would be attempted.

This alternative was dropped due to the problems encountered with previous electric fencing in the preferred areas of the wild horses. In the past, fencing was broken in many places and wire strung out which allowed cattle access to

the rehabilitated areas. In addition the wires on the fence posed a danger of entanglement to wild horses and wildlife.

2. Same as the proposed action except the seeding mixture would be natives with no non-natives in the mix.

This alternative was dropped due to failed attempts of trying to seed natives in this area and other similar areas which receive low amounts of precipitation 6-8" and are covered in a cheatgrass mat. Our experience has been that seeding natives in these areas has had marginal success at best and does not reduce the presence of cheatgrass, which is the main reason the fire frequency in these areas is so high.

3. Same as the proposed action except the Dry Creek Native Pasture would be totally closed to livestock grazing until seeded and native plant health has been restored.

This alternative was determined to be unreasonable since there are 29,902 acres of unburned rangeland within the Dry Creek Native Pasture that could be grazed if protection measures are implemented for the rehabilitated burned areas. Temporary fencing to protect the burned areas would allow grazing use of some of the unburned rangeland.

IV. AFFECTED ENVIRONMENT

A. Vegetation

Historically, the entire burned areas supported a Wyoming big sagebrush overstory with a bluebunch wheatgrass/ Sandberg's bluegrass and bottlebrush squirreltail understory. Frequent fire occurrence (every 3.4 years in the Jackies Butte Fire area) and historic grazing practices have resulted in the removal of Wyoming big sagebrush, and perennial grass species such as bluebunch wheatgrass in most of the burned area. This has resulted in the invasion of and site domination by cheatgrass, pepperweed and tumble mustard .

The burned area consisted predominantly of old crested wheatgrass seedings, cheatgrass, pepperweed, tumble mustard and Russian thistle. Little bluebunch wheatgrass and Sandberg's bluegrass was found in the bottom of several small drainages and along the southern flank in the Dry Creek Native Pasture. Most of the burned area, which is delineated for non-native seeding, was in an early-seral condition prior to burning. Therefore, an adequate seed source of native perennials does not exist on this site for natural recovery. Post-fire, much of the duff layer within the area, that would be seeded with the non-native mix, consists predominantly of annual grass and remains in-tact, so interspecific competition will be high.

However, the seed for the non-native mixes would be coated with a bio-nutrient based liquid which significantly increases the rate and percentage of seeds making it through ecesis (the process of germination, early growth, and establishment of plants). Lastly, some areas along the southeastern flank of the Jackies Butte Fire have adequate pre-burn plant material and seed sources to naturally recover with no augmentation.

Rehabilitation efforts of the Indian Fort Fire (N216) in 1996 resulted in drilling predominantly adapted non-native species with several test plots of native species near the Jackies Butte Fire. Results after four years indicate that the adapted non-native seeding responded well in cheatgrass conditions while the native species seeded in cheatgrass areas responded poorly. The Indian Fort fire had very similar Ecological Sites and burning conditions to those found in the Jackies Butte burn area. The North Caviatta fire seeding of a non-native mix has not had enough time since drilling to determine its success, but germination and early growth lends support that it may be successful.

Fire rehabilitation efforts in the Arock Pasture resulted in drilling a non-native species mix in about 600 acres of the northwest portion of the Jordan Creek Fire. This seeding came in very sparse resulting in continued cheatgrass dominance.

B. Noxious Weeds

Scotch thistle (Onopordum acanthium), an aggressive biennial, exists on about 300 acres approximately 1/4 mile north of Caviatta Ridge. The population has about 2,500 individual plants and was chemically treated during the spring of 2000. There are no known noxious weed areas in the rest of the rehabilitation area, however, white top, halogeton and medusa head are found in the general area.

C. Livestock Grazing

The Jordan Creek fire burned in one pasture of one allotment which is the Arock Pasture of the West Cow Creek Allotment (#20902). The West Cow Creek Allotment has 139,885 acres of which 1,690 acres burned (about 1% of the total allotment). The Arock Pasture has 15,653 acres of public land of which 1530 acres burned (about 10% of the total pasture). The allotment is authorized for 11,584 AUMs with an average stocking rate of 12 acres per AUM. Total permitted AUMs for the permittee that uses the Arock Pasture is 2828 AUMs. Only one permittee uses the pasture that was burned by the Jordan Creek fire.

The Jackies Butte fire burned in four different allotment which are as follows: Jackies Butte (#01101), Jackies Butte Winter Range (#01103), Bowden Hills (#0803), and Eiguren (#11305).

The Jackies Butte Allotment (Community Allotment) had burned areas in the following pastures: Dry Creek Native Pasture, Dry Creek Seeding Pasture, and Indian Fort Pasture. The allotment has eight permittees and is used in a deferred-rotation grazing system. The Jackies Butte Allotment contains 212,161acres of which 41,107 acres burned (19% of the total allotment acres). The allotment is presently being grazed with 14,172 AUMs with an average pasture stocking rate at 14.9 acres per AUM.

Total permitted use AUMs for the allotment are listed below:

Permittee	**AUMs**
M.A. Easterday	1,488
K. Easterday	1,557
R. Dowell	3,028
J. Matteri	3,603
B. Corbari	1,557
P.J. White	711
P.J./B. White	588
Grenke Ranches	540
V. Pendola	1,100
TOTAL	**14,172**

The Jackies Butte Winter Range Allotment had 16,448 acres burn within its boundaries (84% of the total allotment acres). The allotment has two permittees and the grazing system is winter use only. There are a total of 19,522 acres and is presently grazed with 485 AUMs with a stocking rate at 40.3 acres per AUM.

Total permitted use AUMs for the allotment are listed below.

Permittee	AUMs
P.J. White	120
K. Easterday	365
TOTAL	**485**

The Bowden Hills Allotment had 7,053 acres burn within its boundaries (9% of the total allotment acres). The allotment has one permittee and is grazed for winter use only. There are a total of 79,207 acres and it is presently grazed with 1,927 AUMs with a stocking rate at 41.1 acres per AUM.

The total permitted use AUMs for the allotment are listed below.

Permittee	AUMs
Oregon Canyon Ranch	1,927
TOTAL	**1,927**

The Eiguren Allotment had 1,338 acres burn in the Winter Area North Pasture (2% of the total allotment acres). There is one permittee and the allotment is used in a deferred-rotation grazing system. There are a total of 68,217 acres presently grazed with 5,799 AUMs with a stocking rate at 11.8 acres per AUM.

The total permitted use AUMs for the allotment are listed below.

Permettee	AUMs
Eiguren Family Limited Partnership	5,799
TOTAL	**5,799**

D. Soils

Jordan Creek Fire

Soils within the burned area consist of shallow, well drained, clayey (Unit 56) over cemented pans or shallow, well drained, clayey, very stony (Unit 76) over basalt, rhyolite or welded tuff. Typically, these soils occur in gently undulating to rolling lava plateaus and on some of the steeper faulted and dissected terrain (3-60% slopes). The effect rooting depth on these soils is shallow to moderately deep (10-20 inches) and is limited primarily by cemented pans or parent material.

The soils found in the Jordan Creek fire area were surveyed and described in Oregon's Long Range Requirements for Water 1969, Appendix I-11, Owyhee Drainage Basin. The project area consists of two soil mapping units from this fourth-order soil survey; 56-76/2-3, and 96-98/5-6. The two units incorporate four classification units that occur in various percentages within each unit and have two slope groups that range between 3-12 and 20 to 60+ percent.

Unit 56-76/2-3

Unit 56 soils with about 30 percent Unit 76 soils, 3-12 percent slopes.

Unit 96-98/5-6

Unit96 Rock land with about 30 percent Unit 98 raw sediments, 20-60+ percent slopes.

Classification Unit 56

Soils are shallow, well drained soils with clayey subsoils and cemented pans. They occur on very extensive, gently sloping to moderately steep old fans on high terrace remnants. Elevations range from 3,000 to 6,000 feet. Average annual precipitation is on the low side of the 8 to 11 inch range, and mean annual air temperature centers around 47 degrees F. The soil profile by depth consist of gravelly loam, clay loams, heavy clay loan over silica cemented gravelly pans.

Classification Unit 76

Soils are shallow, clayey, very stony, well drained soils over basalt, rhyolite, or welded tuff. They occur on gently undulating to rolling lava plateaus with some very steep faulted and dissected terrain. Soils occur at elevations from 3,500 to 6,500 feet. Average annual precipitation is on the low side of the 8 to 11 inch range, and mean annual air temperature centers around 47 degrees F. The soil profile by depth consist of very stony silt loam, stony silty clay, to stony and channery heavy silty clay loams.

Classification Unit 96 (Steep Rock land)

This is a miscellaneous land unit consisting of rough, steeply sloping areas that are predominantly shallow, very stony soils interspersed with rock outcroppings. Steep

Rock land occurs mainly as canyons and escarpments along margins and dissected portions of lava plateaus.

Classification Unit 98
Unit 98 is a miscellaneous land unit consisting of highly eroded and dissected raw old lacustrine sediments occurring as “badlands.”

Jackies Butte Fire
The majority of the burned area (approximately 80%) consist of Unit 56-76/2-3 on flatter uplands. The remaining area is steep to very steep rock land and raw sediments. Additional soil inclusions can be found throughout the project area that contain varying degrees of surface textures and roughness and are variants of Unit 56-76.

Soils within the burned areas consist of silty-loams, shallow, stoney (Unit 75) or very stoney (Unit S75) and are well drained over basalt, rhyolite or welded tuff. Typically, these soils occur in gently undulating to rolling lava plateaus and on some of the steeper faulted and dissected terrain (3-12% slopes). The effect rooting depth on these soils is shallow to moderately deep (11-15 inches) and is limited primarily by parent material.

The soils found in the Jackies Butte fire area were surveyed and described in Oregon's Long Range Requirements for Water 1969, Appendix I-11, Owyhee Drainage Basin. The project area consists of three soil mapping units from this fourth-order soil survey; 75/2-3, S75/2-3 and S75-99/2-3. The three units incorporate three classification units that occur in various percentages within each unit and have one slope group that ranges between 3-12 percent.

Unit 75/2-3
Unit 75 soils, 3-12 percent slopes.

Unit S75/2-3
Unit S75 soils, 3-12 percent slopes.

Unit S75-99/2-3
UnitS75 soils with about 30 percent Unit 99 bare lava flows, 3-12 percent slopes.

Classification Unit 75
Soils are loamy, shallow, very stony, well drained soils over basalt, rhyolite, or welded tuff.. They occur on gently undulating to rolling lava plateaus with some very steep faulted and dissected terrain. Elevations range from 4,000 to 6,000 feet. Average annual precipitation is on the low side of the 8 to 11 inch range, and mean annual air temperature centers around 47 degrees F. The soil profile by depth consist of very stony silt loam, stony loam, and stony silt loam over basalt bedrock.

Classification Unit S75

Soils are shallow, loamy, well drained, extremely stony soils over basalt, rhyolite, or welded tuff. They occur on gently undulating to rolling lava plateaus with some very steep faulted and dissected terrain. Soils occur at elevations from 3,500 to 6,500 feet. Average annual precipitation is on the low side of the 8 to 11 inch range, and mean annual air temperature centers around 47 degrees F. The soil profile by depth consist of extremely stony silt loam, and extremely stony silty clay loam over fractured basalt bedrock.

Classification Unit 99

Unit 98 is a miscellaneous land unit consisting of recent lava flows. These flow generally are on low slopes but have extremely irregular, rough surfaces. Soils occur in pockets and smooth areas, interspersed with low ridges old bare lave rock.

The majority of the burned area (approximately 85%) consist of Unit S75& S75-99/2-3. The remaining area consists of Unit 75/2-3. Additional soil inclusions can be found throughout the project area that contain varying degrees of surface textures and roughness and are variants of Unit 75.

The Jackies Butte fire suppression activity (N157) caused severe damage to the road-transport system. During the suppression efforts, existing roads were graded to be utilized as control lines. These road/lines are the access and travel routes for suppression activities and general travel. With low soil moisture content and high traffic by truck tractor/lowboys, water tenders, heavy/light engines, and resource vehicles, the roads have been damaged extensively. This damage would be increased-impacted by the rehabilitation of the burned area. This impact would likely be even greater than the damage incurred during suppression due to heavy traffic over a longer period of time.

With low soil moisture content on silty-loam roads, it is not practical to repair directly after control/containment due to the high volume of water necessary to bind the road material together as a road base.

E. Watershed

The nearest perennial water to the Jordan Creek Fire is the Owyhee river located adjacent to the southern boundary of the fire. All ephemeral flowing channels within the burn area drain directly into the Owyhee River.

The Jordan Creek Fire burned area lies within the 8-10 inch precipitation zone yet could receive wide variations from drought to wet years ranging from as low as 3 to as high as 12 inches.

Within the Jackies Butte Fire, the fire encompassed portions of intermittent flowing Dry Creek and Corbin Creek that drain into Blevens Reservoir and/or Dry Creek Reservoir as well as numerous smaller ephemeral flowing channels that drain into Dry, Corbin, Bull, and Rattlesnake creeks. The nearest reliable perennial water in the area is at Hardin Spring just outside the northern boundary of the fire. In most years Dry Creek contains seasonal waters in a series of small elongated pools within the current burnt area.

The Jackies Butte Fire burned area lies within the 8-10 inch precipitation zone yet could receive wide variations from drought to wet years ranging from as low as 3 to as high as 12 inches.

F. Wildlife

There are no federal Threatened or Endangered wildlife species in the proposed treatment areas so there will be no requirement to consult with the U.S. Fish and Wildlife Service regarding Section 7 of The Endangered Species Act.

Rangelands in the vicinity of Jackies Butte and extending to the north for approximately 25 miles constitute the most extensive block of fragmented sagebrush steppe in the Jordan Resource Area. The burn, which was in mid to low elevation Wyoming sagebrush habitat, has added to the cumulative losses of shrub steppe habitat that have been ongoing for the last 10 years or more. Species present or formerly present in the Jackies Butte fire and Jordan Creek fire burn areas include the following:

Game species - mule deer, pronghorn, greater sage grouse
Mule deer habitat is generally limited and confined to draws within close proximity to irrigated farmlands where they can find green forage. Pronghorn use the entire area on a year long basis and they tend to concentrate in winter herds at the west end of the burned area. One greater sage grouse lek (The Basin, GIS_ID #423, T33S R41E sec 19 SWSW) is located in the western end of the unit, it is probable that some nesting and wintering activity was occurring prior to the burn.

Non-game species - coyote, badger, Townsend's ground-squirrel, chipmunk, western whiptail lizard, sagebrush lizard, gopher snake, desert horned lizard, and western rattlesnake, horned lark, meadow lark, brewers sparrow, raven, red-tailed hawk, northern harrier, and burrowing owl.

G. Recreation and Visual Resources

Dispersed outdoor recreation in the proposed fire rehabilitation area consists primarily of hunting of upland birds and big game animals. Some dispersed general sightseeing

and day hiking may occur. The burn is within a visual resource management class IV area, with low visual sensitivity and a low (class C) scenic quality rating.

H. Cultural Resources

Pre-European contact Native American peoples living in southeastern Oregon were entirely dependent upon the locally available food resources. As climatic fluctuations created population and habitat changes in the plant and animal communities, humans adjusted their hunting and gathering areas and their technology accordingly. The Native people of the Great Basin, who practiced the ancestral lifeways into the 19th century, were heirs to an extremely ancient cultural tradition with a technology both effective and efficient, with many multi-functional, light-weight and expendable tools.

Exploration into this area during the Historic period began with the expeditions of John Jacob Aster, after he heard the stories from the Lewis and Clark Expedition of 1804-1806. The first written observations of southeastern Oregon can be found in journals kept by men involved in the expansion of fir trapping territory. Trapping occurred along the major and minor tributaries of the Owyhee River. The era of the fur trade provided the basis for American families to travel west.

Prehistoric and historic use of southeastern Oregon is documented by the archaeological record. Several archaeological excavations have generated information that establishes long-term human occupation in Malheur and Harney Counties. Excavations at five stratified spring sites indicate that prehistoric people occupied southeast Oregon from about 11,000 to 150 years ago. An excavation at the Dirty Shame rockshelter, on a tributary of the Owyhee River, documented occupation of the shelter from 9500 to 400 years ago.

In the Jackies Butte area, numerous archaeological surveys have been conducted as the result of past fire activity. Duane Marti of the BLM inventoried a 52,000 acre burn known as the 1983 Indian Fort Fire. Three sites and four isolated finds were located during the survey. In 1995, Alice Bronsdon of the BLM inventoried a 13,272 acre burn, also known as the Indian Fort Fire. No cultural materials were recorded. In 1995, Alice Bronsdon conducted an inventory of a 16,000 acre burn known as the Battle Creek Fire. No cultural materials were located during the inventory. Marnie Wilson of the BLM surveyed an 18,158 acre burn known as the White Mule Fire. Three isolated finds were recorded.

A number of project driven archaeological surveys have been conducted in the Jackies Butte area. In 1990, Angel Dawson of the BLM conducted a survey for the Tree Spring Pipeline. No cultural materials were located. Diane Pritchard of the BLM conducted an inventory in 1991as part of a right-of-way issuance for the Grassy Butte Remote Area Weather Station. No cultural materials were located during the survey.

The Garlow Butte Community Pit was inventoried by Natalie Sudman of the BLM in 1992. A total of 21.1 acres were surveyed, and no cultural materials were located. In 1994, Natalie Sudman conducted an inventory for the Corbin Creek Well. No cultural resources were recorded. Based on information from these surveys, it is unlikely that significant cultural resources will be found in the Jackies Butte area.

Two archaeological surveys have been conducted in the Jordan Creek burn area. In 1985, Mark Plew of the BLM surveyed a 7,900 acre seeding known as the Boney seeding. Plew recorded two isolated finds and one historic dump site. Alice Bronsdon and Natalie Sudman of the BLM surveyed 145 acres in 1992 as part of the Arock seeding. A single isolated find was recorded. These inventories indicate that the potential for locating significant cultural resources is low.

I. Threatened and Endangered (T&E) Plant Species

No known or suspected threatened and endangered or special status plant species are known to occupy the burned area.

J. Wild Horses and Horse Management Area (Jackies Butte Fire only)

The burned area lies within the Jackies Butte herd Management Area (HMA). The Jackies Butte Wild Horse Herd Management Area (HMA) is located directly south of Rome, Oregon.
There is sufficient forage and water available within the Dry Creek pasture to sustain the horses remaining in the HMA. Post fire activities included replenishing the long water hole with 21,000 gallons of water that was used in fire suppression efforts. Recent monitoring depicts physical condition as a 5 (moderate flesh condition) according to the Henneke Scale.

In most herds that have not been selectively gathered for some time, the approximate age structure may be broken down as follows:

Age Class 0-5: 60-70 percent of herd
Age Class 6-20+: 30-40 percent of herd

Selective removal has typically increased the ratio of male wild horses to female wild horses. Prior to selective removal, most herds seem to have a 53:47 ratio favoring females. Where all horses 5 years and younger are removed, the sex ratio may be adjusted to around 50/50. Previous selective removal criteria used in earlier gathering efforts called for the release of all horses over the age of nine. Under this criteria, the sex ratio was skewed more toward males than it is under current policy. This effect is mitigated by several factors: (1) Increased males in the population increases the likelihood that fertile mares will be bred and can result in smaller band size. This not only results in increased reproduction rates but also decreases the potential for

inbreeding. (2) Research has shown that older mares are more fecund and successful at raising their foals than younger mares. (3) Large herd size (AML) dilutes these effects.

K. Other Mandatory Elements

The following mandatory elements are either not present or would not be affected by the proposed action or alternatives:

1. Air Quality
2. Wild and Scenic Rivers
3. Native American Religious Concerns
4. Hazardous wastes
5. Prime or unique farmlands
6. Wilderness Study Areas
7. Areas of Critical Environmental Concern
8. Wetlands/Riparian, Flood Plains

V. ENVIRONMENTAL CONSEQUENCES

A. Proposed Action

1. Vegetation

Seeding would provide an opportunity to establish a more stable perennial vegetal cover consisting of adapted non-native seed mixes and Wyoming big sagebrush. Site specifically adapted perennial grasses (predominantly Siberian and Fairway varieties) would replace annuals, stabilize watersheds, reduce the potential for noxious weed invasion and create habitat diversity. Most importantly, the non-native mix, coupled with forage kochia would replace more flammable annuals and provide a potential fire control line which would break up the large expanse, thereby potentially reducing the spread of wildfire and size of future burns.

Establishment of sagebrush would provide vegetative diversity and structure to the community that has been lost to the cumulative effect of frequent wildfire and historical grazing practices. Additionally, sagebrush would establish a deep-rooted shrub component in the vegetal community and increase effective precipitation by capturing/holding snow during the winter months.

Moreover, establishing an adapted perennial vegetal community, including non-native grasses would mimic the structure of the native bunchgrass community and restore ecological stability and resiliency thereby rehabilitating rangeland processes.

Immigrant forage kochia (Kochia prostrata)is native to the arid and semi-arid regions of Central Eurasia and was introduced into this country in 1966 with the first plantings occurring in 1968 (Harrison, et. al., 2000). Immigrant is a long-lived, semi-evergreen half shrub that averages 1/3 to 1 m high at maturity. It develops an extensive fibrous root system with a tap root that may extend to a depth of 5 m. In most environments the lower 1/3 of the plants remain green throughout the year while seed stalk and the upper stems turn brown to red and dry up after seed shatters (late October and November).

Immigrant forage kochia has high ecological plasticity and is adapted to a variety of environmental conditions in this Region (Harrison et. al., 2000). Forage kochia has been used to improve the nutrient quality of range seedings and may improve valuable sources of protein and carotene for grazing animals in seasons when grasses are dry and dormant. Forage kochia tends to dampen the spread of wildfires but will burn when surrounded by sufficient fuel, such as cheatgrass. However, forage kochia sprouts after burning.

Harrison et. al. (2000) concluded that the concerns that forage kochia is an alien species and may spread vigorously throughout western rangelands is largely unfounded. This conclusion was also verified by Julie Kaltenecker and Steve Jirik (Boise BLM, personal communication) who have seeded forage kochia in vegetation strips over the past decade. Lastly, David Ganskopp (Squaw Butte Experimental Station, personal communication) stated that in their test plots, he had not seen forage kochia invade into the surrounding perennial grass communities. He stated that he had inadvertently found 2,4-D (chemical herbicide) was very effective in killing forage kochia.

Ann DeBolt (Boise BLM, personal communication) stated that forage kochia has been used in this country for only about 20 years. Her concern is that twenty years may not be a long enough period to evaluate the long-term competitive ability of this introduced species. Based on the site description and proposed use in the White Mule Fire of 2000, she stated that the proposed action was consistent with the recommendations developed during the Sagebrush Steppe Symposium held in Boise during 1999 and that she would not have much of a concern. Ann stated, in general, the recommendations from the Symposium were to use forage kochia in limited cases such as non-native vegetation strips or along road sides for purposes of fuel management. Because of its potential competitive nature, it was recommended that forage kochia should not be seeded in Salt Desert Shrub communities and in/around Threatened or Endangered plant species. Lastly, it is recommended that the use of forage kochia be restricted around sensitive native communities.

The Vale District Botanist has continuing concerns regarding the use of Immigrant forage kochia in seeding mixes following wildfires. The origin of this species is cause for immediate concern. Many of the noxious weeds in the Inter-mountain West

are from the arid regions of Central Eurasia, including a weedy annual kochia species (Kochia scoparia) currently well established on roadsides and waste places throughout the Inter-mountain West. Immigrant forage kochia has only been seeded in the United States within the last 32 years. This time frame may be too short to have captured the wide variety of climatic conditions and climatic trends which would favor a perennial species known to have high ecological plasticity and adaptations for a variety of environmental conditions. Invasions of noxious plants as well as recoveries of natural systems tend to follow a logarithmic curve, with little activity noted early, followed by rapid increases in numbers of the species being tracked. The time frames for study of invasiveness and competitive abilities of Immigrant forage kochia may not have been long enough to have determined if the logarithmic curve for increase applies to this species.

2. Noxious weeds

Establishment of perennial species would help prevent the spread and takeover of the site by noxious weeds, particularly Scotch thistle. Establishment of a shrub component would occupy the niche (deep rooted shrubs) in the plant community that perennial grasses alone cannot fill. This would help prevent or minimize the invasion of noxious weed species which will readily invade and fill this niche. Future monitoring would be conducted to insure that no new infestations of noxious weeds would become established.

3. Livestock Grazing

Livestock would be excluded from the burned portion of the Arock Pasture in the West Cow Creek Allotment for at least two growing seasons by the use of an temporary electric fence. Permitted use in this pasture would be reduced by 10% of the normal average use. Permitted use has recently been for 470 head of cattle for 3 months in the Arock Pasture or 1391 AUMS. A 10% reduction would result in a reduction of 139 AUMs in permitted use for the 2002 and possibly the 2003 grazing seasons.

Livestock would be excluded from the Jackies Butte Allotment treated and burned areas for at least two growing seasons. In addition to the burned area according to the proposed action approximately 15,000 acres more of the Dry Creek Native Pasture that is not burned would be excluded from cattle grazing because it is considered Wild Horse preferred range. Permitted use in the community allotment would be reduced by 3,685 AUMs for the 2002 and, possibly, for the 2003 grazing seasons.

Total permitted use AUMs for the allotment during the rehabilitation effort are listed below:

Permittee	AUMs
M.A. Easterday	1,101
K. Easterday	1,152
R. Dowell	2,241
J. Matteri	2,666
B. Corbari	1,152
P.J. White	526
P.J./B. White	435
Grenke Ranches	400
V. Pendola	814
TOTAL	**10,487**

The Jackies Butte Winter Range Allotment would be excluded from livestock grazing for at least two growing seasons.

Total permitted use AUMs for the allotment during the rehabilitation effort are listed below.

Permittee	AUMs
P.J. White	0
K. Easterday	0

TOTAL	**0**

The Bowden Hills Allotment would have grazing excluded from the burned area within the allotment for at least two growing seasons. This would be accomplished by building a temporary electric fence.

Total permitted use AUMs for the allotment during the rehabilitation effort are listed below.

Permittee	AUMs
Oregon Canyon Ranch	1,552
TOTAL	**1,552**

The Winter Area North Pasture of the Eiguren Allotment would have grazing excluded from the burned area within the allotment for at least two growing seasons. This also would be accomplished by building a temporary electric fence.

Total permitted use AUMs for the allotment during the rehabilitation effort are listed below.

Permittee	**AUMs**
Eiguren Family Limited Partnership	5,683
TOTAL	**5,683**

In the long term, positive benefits would accrue to livestock operators due to the establishment of adapted perennial vegetation, since a more stable forage base would be established.

Since the burned areas are rested from livestock grazing there remains a chance that these areas may burn again during the summer of 2002. This has happened the last few years in the Jackies Butte Allotment which has caused problems for the permittees in that allotment meeting normal yearly forage needs for their cattle. Hopefully, a base of perennial plant species would eventually be established in this area that would reduce the fire frequency. In addition, the forage kochia strips, once

established, would break this high frequency fire area into smaller parcels that should make wildfire control easier. Fires in these control areas should be much smaller lessening the impact on livestock permittee operations.

4. Soils

Road repair/re-contouring would reduce potential erosion by re-contouring the road surface, installing some gravel, and pulling borrow pits. Additionally, repairing the road system maintains adequate access and safety for the recreating public and authorized/permitted user groups.

5. Watershed

Soil erosion could increase in the short term as a result of loss of vegetative cover from the fire although overall erosion hazard is low due to slopes and low annual precipitation. Soil erosion rates would decrease as perennial species establish on the site over a two year period. The annual species which currently inhabit the area provide much less protection of the soil surface than would perennial species. Under this alternative, erosion rates would decrease further than under the no action alternative due to establishment of perennial species. Perennial vegetation would reduce soil erosion by providing improved protection of the soil surface, and by reducing the frequency of wildfire .

6. Wildlife

Within the next 10 years or more, the proposed action would accelerate shrub over story recovery over about 7% (4,500 acres) of the burn area and enhance the likelihood of sagebrush recolonization in adjoining burned habitats. Progress would be made towards restoring shrub related forage, structure, and thermal relief for wildlife. The lack of sagebrush cover in and around the Jackies Butte area has long been considered a limiting factor and threat to sagebrush steppe wildlife identified in the existing environment.

In contrast to natural recovery, the proposed action would result in a much higher likelihood of attaining shrub cover conditions that support the life history requirements of greater sage grouse and other animals that use sagebrush habitats on at least part of the burned area. Natural shrub community recolonization is expected to be very slow in unseeded areas due to the general ecology of Wyoming sagebrush and the fact that there is a large surrounding area which currently lacks sagebrush seed sources.

Establishment of a sagebrush corridor would provide an important landscape linkage between two large, fragmented communities of sagebrush which lie to the north and south of the burned area. Because the Jackies Butte area is prone to fire, subsequent

ignitions in sagebrush seeded areas may reduce or eliminate the chances for sagebrush community recovery. Green-stripping would be expected to improve the long term chances of sagebrush community restoration.

As a consequence of grass and forb seeding, spring/summer/fall forage availability for wildlife would be enhanced in the burn areas. The most significant benefits would be associated with enhanced forb availability which is considered a limiting factor (along with water) for many species of wildlife in Malheur County.

7. Recreation and Visual Resources

Impacts to dispersed recreation activities would be insignificant. Should rehabilitation activities occur during game hunting seasons, any wildlife close to the activities would be temporarily disturbed.

Surface impacts of the proposed rehabilitation efforts do not exceed management objectives for visual resource class IV. Long term visual evidence of drilled seedings would remain evident.

8. Cultural Resources

The areas proposed for rehabilitation would be inventoried for cultural and paleontologic resources prior to ground disturbing activities. Class III survey methods would be used in areas with a high probability for yielding cultural resources. Cultural resources discovered during the survey, and those previously recorded, would be flagged, recorded and avoided as appropriate. If paleontologic 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 rehabilitation activities or the fossils would be recovered prior to rehabilitation activities. A single pass with a rangeland drill through the area would be permitted to avoid "islands" without vegetation which could draw unwanted attention. No drilling would be allowed within 100 meters of the Dry Creek channel. The Winnemucca to Silver City historic wagon road which is located along the west boundary of the Jackies Butte Fire would be avoided. The Oregon Central Military Road and the Fort McDermitt to Jordan Valley wagon road that pass through the Jordan Creek burn area would be avoided.

9. T&E Plant Species

Special Status plant species are not present in the burned area thus would not be affected.

10. Wild Horses

Horses remaining in the Dry Creek Native pasture would be left undisturbed.

B. No Action

1. Vegetation

Annual species would dominate the site thus enhancing the chance of noxious weed invasion. The potential for invasion of noxious weeds would remain high. Potential for repeated wildfire would be high. The cumulative effects of repeated wildfire has caused a loss of vegetative diversity and structure. This trend would continue.

2. Noxious weeds

The site would be susceptible to domination by noxious weeds found adjacent to the site. Scotch thistle is an aggressive and highly invasive species. With little competition from perennial grasses and shrubs, this weed would dominate the burn area and provide ecological conditions conducive for other noxious weeds to invade.

3. Livestock Grazing

Livestock would not be allowed to graze the burn area for two growing seasons as required by BLM policy. No long term benefits would occur as there would be no improvement to forage production or vegetative conditions. Livestock production may be further negatively impacted in the long term if noxious weed species increase in the burn area and fire-return intervals increase.

4. Soils

Soil erosion would increase due to sheet and/or rill erosion derived from an annual plant community. In time, soil chemistry and infiltration rates would be altered in the annual plant dominated range from that depicted by a perennial grass/sagebrush plant community.

5. Watershed

Soil erosion would increase in the short term as a result of loss of vegetative cover. Erosion rates would slightly decrease as the annual species re-establish dominance on the site. Soil erosion rates would remain higher than under the proposed action due to the lack of perennial vegetal cover. Fire frequencies would remain high and short term exposure to erosion would occur with each future fire event.

6. Wildlife

Benefits related to the acceleration of sagebrush habitat recovery and enhanced forb availability for wildlife identified in the proposed action would be foregone

7. Recreation and Visual Resources

The return of game species for hunting may be somewhat delayed. Site domination by undesirable weed species would hinder efforts to improve game species habitat in the burn area. There would be an insignificant delay in returning the area to a preferred visual setting of some type of vegetative cover.

8. Cultural Resources

There would be no effect to cultural resources as a result of the no action alternative. However, surface disturbance may be greater from livestock trampling and erosional factors without vegetation to provide surface stability.

9. T & E Plant Species

Special Status plant species would not be affected.

10. Wild Horses

Wild horses would have adequate forage and available water. There would be no loss of acceptable physical condition causing physiological stress. These conditions would not be accelerated by the present drought conditions. Wild horses would not severely impact vegetative rehabilitation efforts.

C. Alternative 2

Rehabilitation Effort with Protection of Only The Burned Area.

Impacts from this action would be identical to those discussed in the Proposed Action Alternative with the exception of livestock in the Jackies Butte Fire area and the addition of Forage kochia to the sagebrush seeding mix in the Jackies Butte Fire area.

Under this alternative, approximately 51 miles of temporary electric fence would be constructed to protect the seeded and burned areas. This would significantly increase the cost of construction of temporary fence with no benefit to the resource.

The construction of the additional 21 miles of fence would cost approximately $73,500. The fence would increase the AUMs available in the Jackies Butte Winter Range from zero to 126 AUMs. However this would not be a significant benefit to the permittees which would justify the cost of the fencing.

The temporary fences would bisect the pasture/HMA resulting in inadequate water availability for the remaining forage base for both livestock and wild horses and would cause poor grazing distribution. This would result in improper use of the forage resource and could result in early livestock removal. This pasture, given the rotational grazing system remains constant, would be used from July through October during the 2001 grazing season. Inadequate water sources during hot season grazing potentially increases improper use. The 1995 fire (36,046 ac) rehabilitation effort resulted in construction of a single 10 mile temporary electric fence to protect the burned area/seedings. Wild horses remained in the HMA and with livestock, consistently traversed through the temporary fence rending it ineffective and impacting the rehabilitation effort.

More importantly, high tensile cable was used to improve the effectiveness of the temporary electric fence. The high tensile cable did not break when encountered by animals resulting in wild horses, wildlife and livestock entangling themselves . No known injuries occurred during this rehabilitation effort but could during any future use.

The addition of forage kochia to the sagebrush mix for seeding 4,500 acres would provide a very palatable additional forage for livestock and big game wildlife. Forage kochia would reduce the fire frequency in these seeded areas once it is established since it stays green for most of the summer (personal conversation with Mike Selenski of the Winnemmuca District BLM. Mike has been studying and seeding forage kochia in the Winnemucca district since 1990). Mike said that forage kochia is singled out by livestock and big game for forage use which gives native plants a break from grazing. Mike also said it takes 3-5 years to get a successful stand of forage kochia, but once established it withstands heavy grazing very well. Mike states that sagebrush has began to come back in some of the older forage kochia seedings in Winnemucca District, therefore, sagebrush and forage kochia seem to be able to co-exist. Adding forage kochia to the sagebrush mix will add a unnatural half-shrub to the plant community which will change the structure and naturalness of the seeding. When all the grasses in the area is turning yellow during the summer the forage kochia will be conspicuously green. It is not known whether forage kochia would hinder the establishment of other seeded species due to its competitiveness. There are concerns over the spread of forage kochia into native areas and outcompeting the native plants for the scarce nutrients and water in these areas. A worse case scenario would be that forage kochia becomes another exotic noxious weed from the Euro/Asia area. However, there is no information that this has occurred in those areas where it has been used for fire rehabilitation. Forage kochia is easily killed by common 2,4-D (chemical herbicide) if the need arises which makes forage kochia a far easier to control plant than the noxious weeds out there such as spotted knapweed and leafy spurge.

VI CONSULTATION AND COORDINATION

Oregon Department of Fish and Wildlife
Jackies Butte Summer Allotment permittees
Oregon Canyon Ranch (Bowden Allotment)
Fred Eigueren (West Cow Creek Allotment)
Richard Eigueren (Eigueren Allotment)

VII. MONITORING

A. Noxious Weeds

Intensive monitoring of the burned area for two years would be required to locate and control noxious weeds which are known to have existed in the burned area. Intensive ground surveys would be conducted monthly from May through October.

B. Vegetation

The burned area would be monitored to determine degree and extent of establishment of seeded species. Monitoring would be done in representative areas during the first three years of the project. Monitoring would include photo plots and techniques to determine species occurrence, composition and vigor.

C. Livestock

Periodic use supervision would be conducted in the project area to ensure livestock are excluded from the pasture during establishment and recovery vegetation on the burned area.

D. Wild Horses

The remaining wild horses in the HA would be monitored to track physiological condition. Utilization on key forage plants would be conducted on the rehabilitation area as well as the unburned range in the Jackies Butte HA to ensure proper use criteria is adhered to and adequate forage and water is available.

VIII. SUMMARY

The rehabilitation effort, as proposed, is expected to establish adapted perennials and would: stabilize soils with adapted perennials, prevent re-invasion of cheatgrass, reduce fire frequency, establish a perennial forage base for wild horses, wildlife and livestock, and re-establish a shrub cover for multiple rooting depth and wildlife habitat. Boundary fences

would be restored for protection and the road damage must be repaired for public access, safety, and decreased soil erosion. The rehabilitation effort would be protected by closing the burned areas in the pastures to livestock grazing for a minimum of two growing seasons.

IX. REFERENCES

Harrison, R.D., N.J. Chatteron, B.L. Waldron, B.W. Davenport, A.J. Palazzo, W.H. Horton, K.H. Asay. 2000. Immigrant Forage Kochia - It's Compatibility and Potential Aggressiveness on Intermountain Rangelands. Research Report 162, U.S. Depart. of Ag, Forest Service, Intermountain Research Stat, Ogden Utah.

X. ANNUAL WORK PLAN SECTION

A cost/risk assessment is attached as Appendix 2. Listed below by fiscal year is a summary of funding needs for the proposed action:

Description	Items	Cost by Activity		
		2821	2822	8100
FY2001				
Plan, EA preparation, surveys	3/4 WM		$3,850.00	
FY2002				
Plan, surveys, location	4 WM plus per diem		$27,350.00	
Road repair	labor		$15,000.00	
Permanent fence repair	labor		$9,460.00	
	material		$6,066.00	
Temporary Electric Fence construction	labor		$78,750.00	
	material		$43,750.00	
Seed purchase			$716,764.00	
Seed Transport, Treatment, Storage			$93,803.00	
Rangeland drilling	equipment		$250,698.00	
	labor		$229,736.00	
Aerial Seeding Sage			$20,250.00	
Aerial Seeding Kochia			$4,815.00	
Culti-pack of Sage			$61,560.00	
Rehab monitoring	2 WM		$5,000.00	
Noxious weed monitoring	1 WM		$6,300.00	
Noxious weed treatment	materials		$500.00	
FY2003				
Rehab monitoring	1 WM		$5,000.00	
Noxious weed monitoring	2 WM		$6,300.00	
Noxious weed treatment	materials		$500.00	
Temporary Electric Fence Removal			$17,500.00	

Description	Items	Cost by Activity		
		2821	2822	8100
TOTAL		$0.00	$1,602,952.00	$0.00

XI. EFR PROJECT SUMMARY

Fire Name:	Jackies Butte Fire	Jordan Creek Fire
Fire Number:	N157	N160
Fire Control Date:	08/13	08/10
Acres BLM Burned:	67,052	1,530
Start of Rehabilitation Project (Mo/Yr):	09/01	09/01
Completion of Rehabilitation Project (Mo/Yr):	09/2003	09/2003
Miles of Temporary Fence:	30	5
Miles of Fence Rebuilt:	16	2
No. of Soil/Watershed Structures:	none	none
Acres Reforestation:	none	none
Acres of Revegetation:	33,787	1,500
Acres of Burned Area Protected for Natural Regeneration:	33,265	30
Total Acres Rehabilitated:	67,052	1,530
Estimated Funding Current Year (FY2001):	3,700	150
Estimated Funding Second Year (FY2002):	1,504,216	65,586
Estimated Funding Third Year (FY2003):	26,200	3,100
Total Cost Rehabilitation Project:	1,534,116	68,836

XII. LIST OF PREPARERS/REVIEWERS

Tom Miles, Supervisory Range Management Specialist
Andy Bumgarner, Range Management Specialist
Tom Christensen, Outdoor Recreation Planner
Jean Findley, Botanist
Jerry Taylor, Jordan Field Office Manager
Marnie Wilson, Archaeologist
Jack Wenderoth, Hydrologist
Jon Sadowski, Wildlife Biologist
Jerry Erstrom, Weed Coordinator
Dave Evans, Force Account Work Leader
Jim Johnson, Wild Horse Specialist

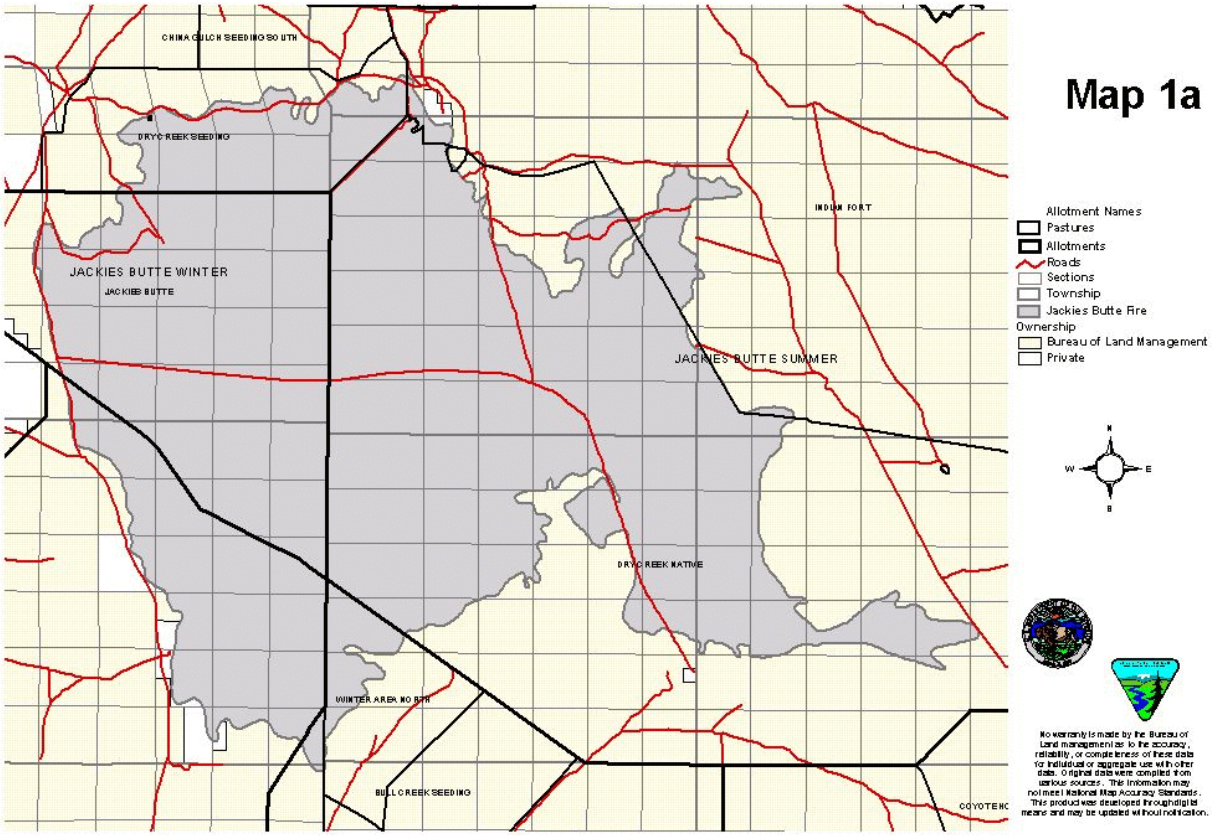
XIII. ENVIRONMENTAL ASSESSMENT DECISION REPORT

Finding of No Significant Impact / Decision Record

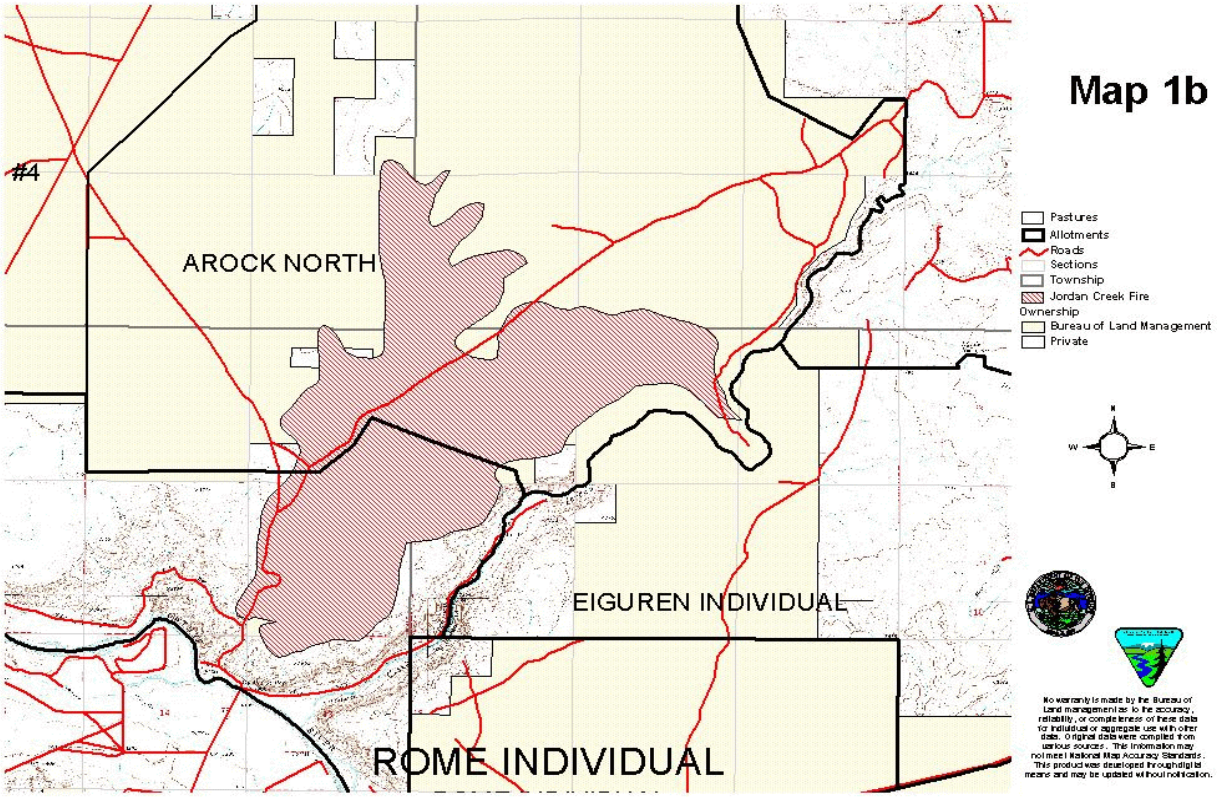
On the basis of the information contained in this Environmental Assessment and all other information available, it is my determination that the proposed action is in conformance with the land use plan for the area and does not constitute a major federal action significantly affecting the quality of the human environment and that an EIS is not required. It is my decision to implement the proposed action described in this EA (OR-030-00-014).

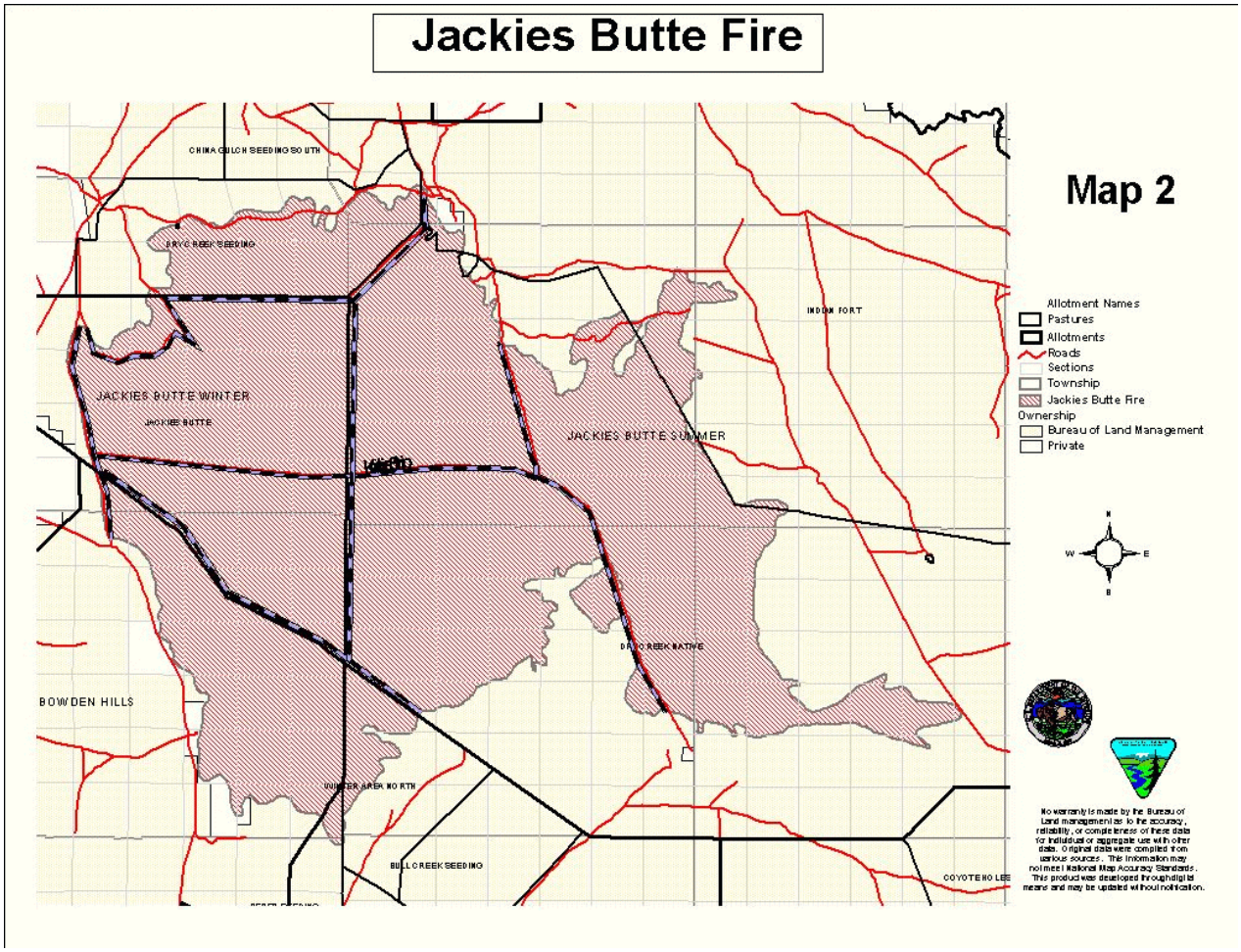
s/Jerry L. Taylor	September 24, 2001
Authorized Official	Date

Jackies Butte Fire

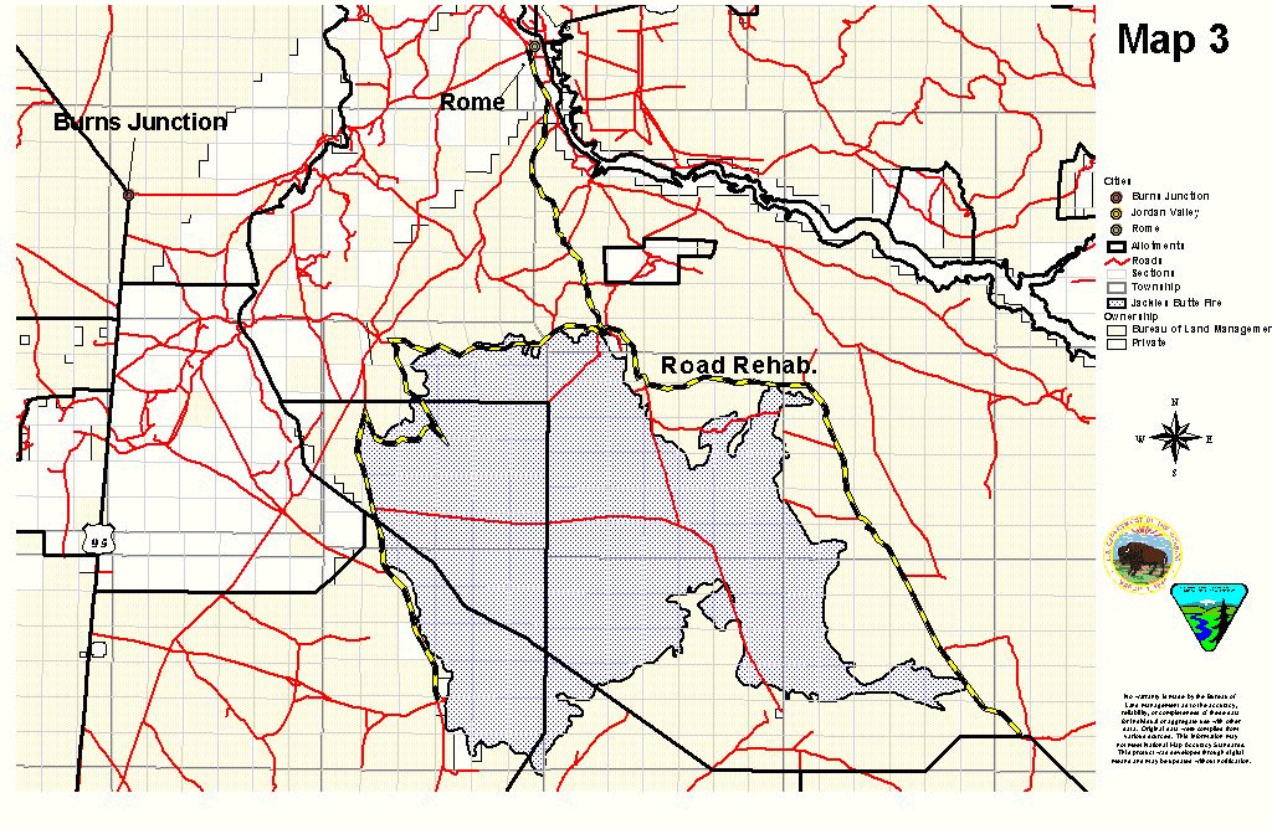


Jordan Creek Fire

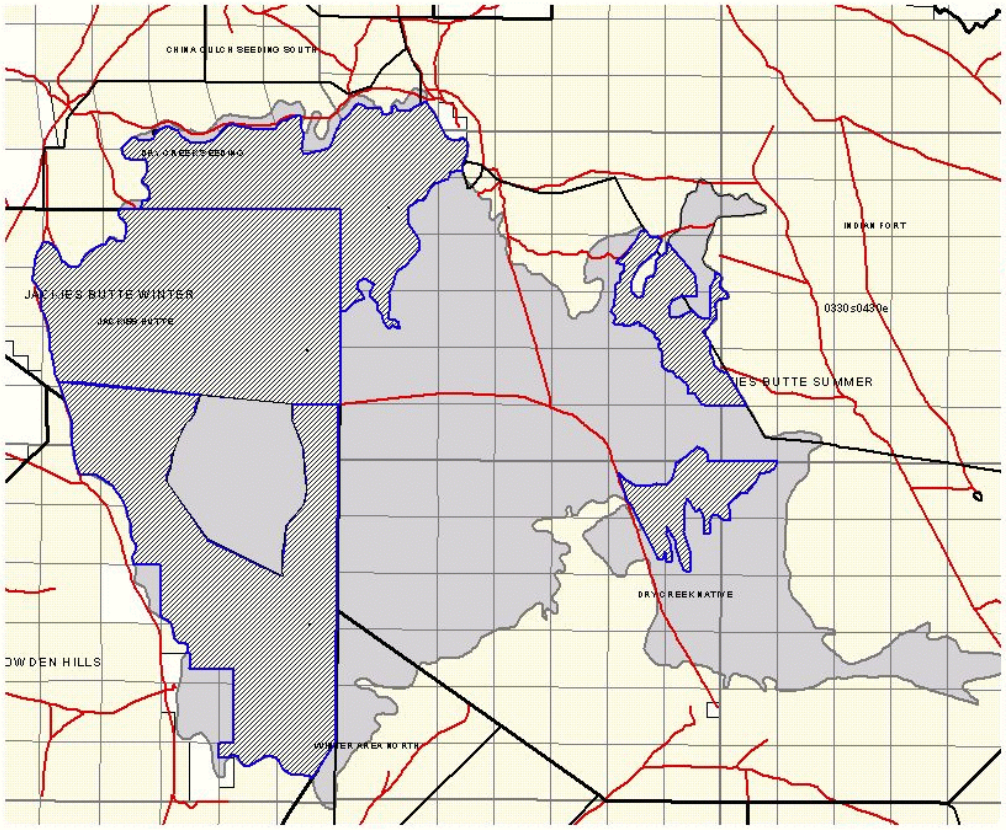



Jackies Butte Fire
CHINA GULCH SEEDING SOUTH
DRY CREEK SEEDING
JACKIES BUTTE WINTER
JACKIES BUTTE
JACKIES BUTTE SUMMER
INDIAN FORT
BOWDEN HILLS
BULL CREEK SEEDING
COYOTE HOLLOW
Map 2
Allotment Names
Pastures
Allotments
Roads
Sections
Township
Jackies Butte Fire
Ownership
Bureau of Land Management
Private
N
W
E
S
No warranty is made by the Bureau of Land management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.

Jackies Butte



Jackies Butte Fire

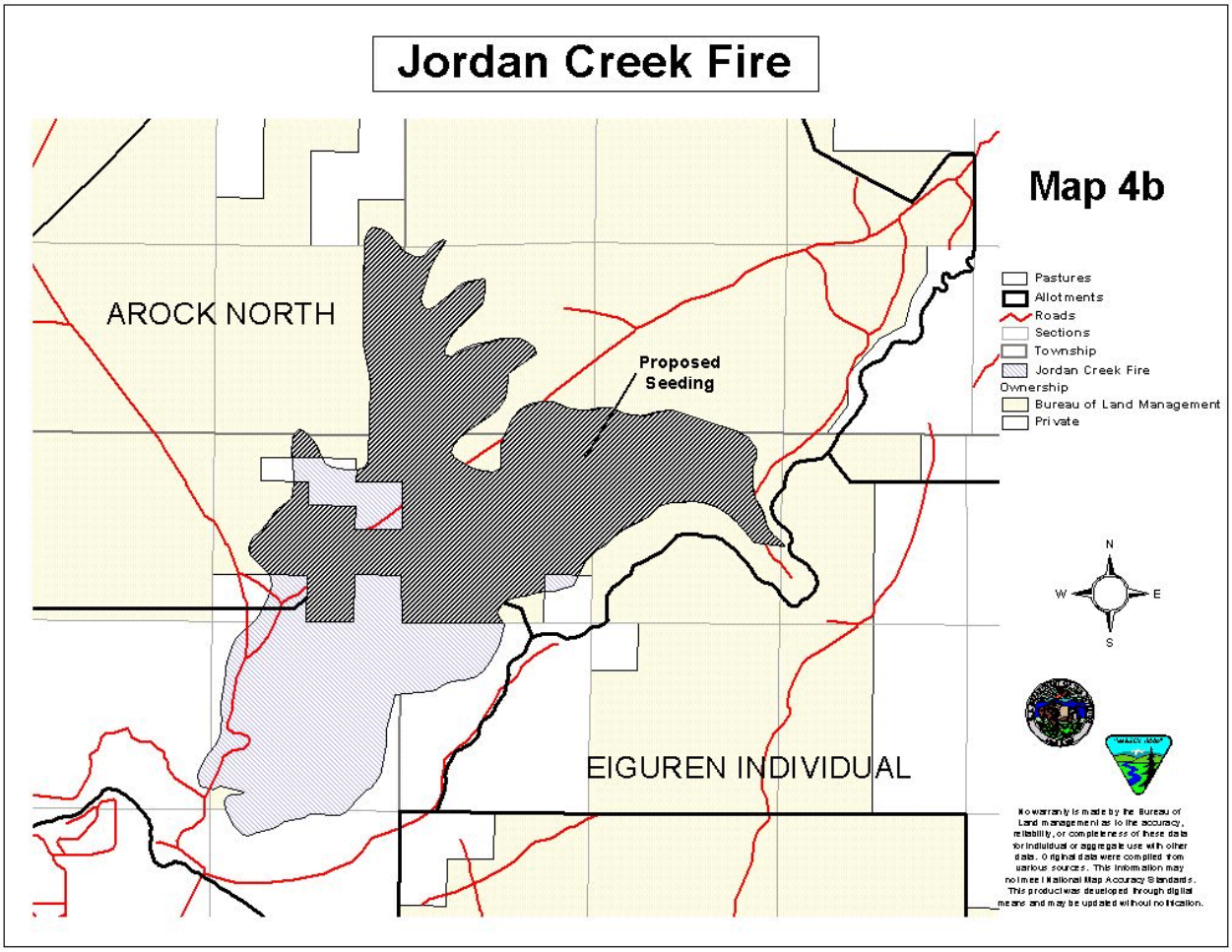


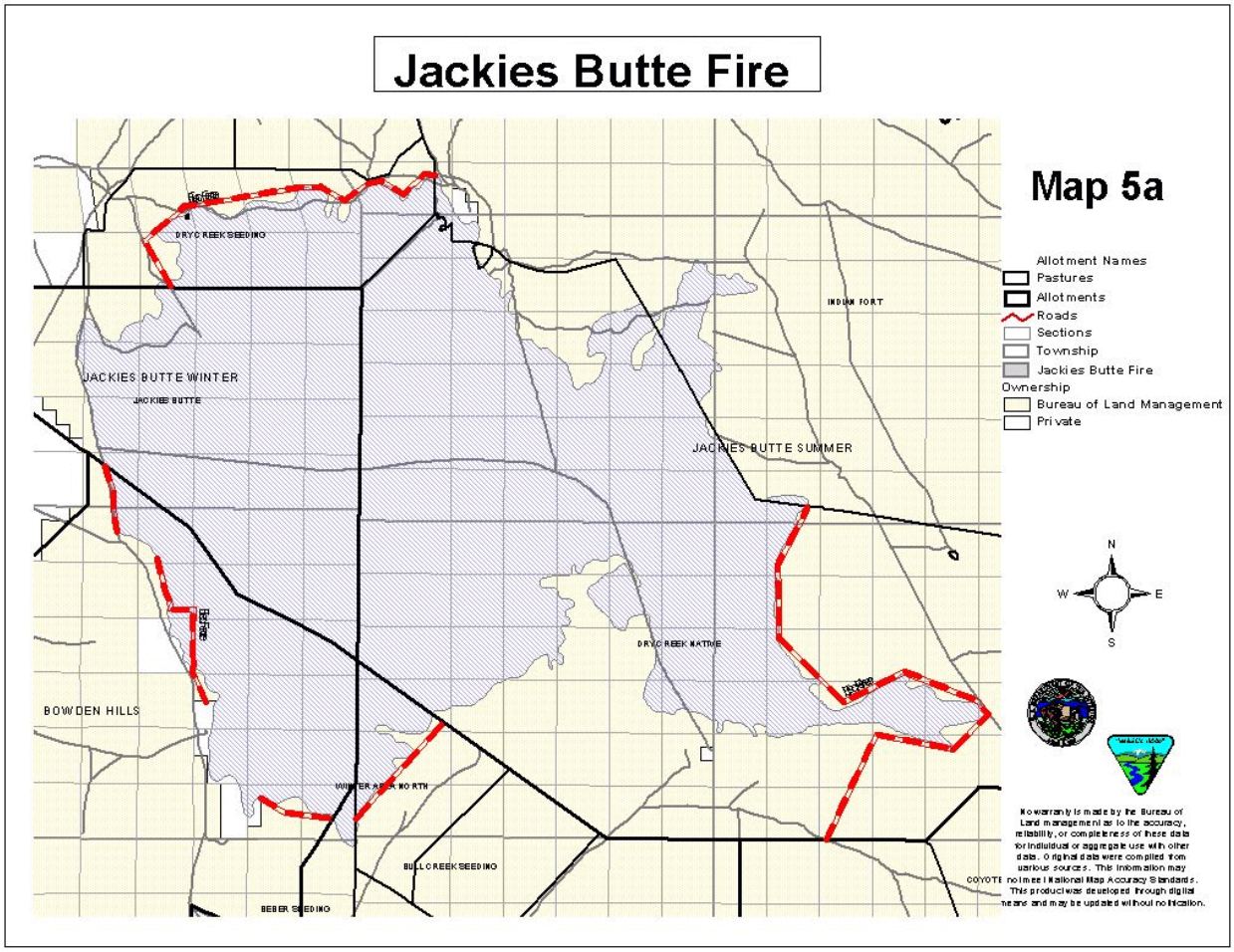
Map 4a

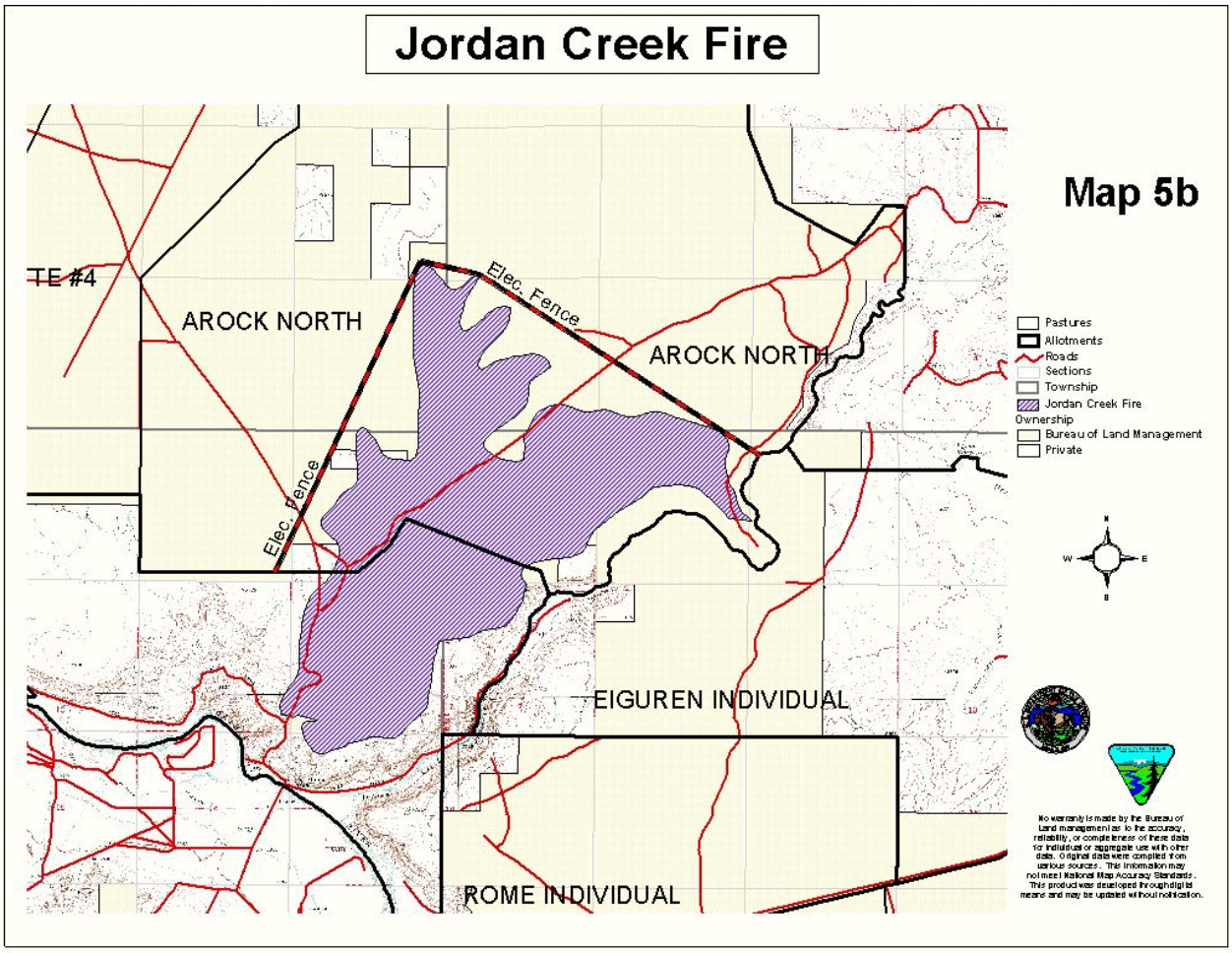
Allotment Names
Pastures
Allotments
Roads
Sections
Township
Jackies Butte Fire
Ownership
Bureau of Land Management
Private

N
W
E
S

No warranty is made by the Bureau of Land management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.


Jordan Creek Fire
Map 4b
AROCK NORTH
Proposed Seeding
EIGUREN INDIVIDUAL
Pastures
Allotments
Roads
Sections
Township
Jordan Creek Fire
Ownership
Bureau of Land Management
Private
N
W
E
S
No warranty is made by the Bureau of Land management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.


Jackies Butte Fire
Map 5a
DRY CREEK SEEDING
INDIAN FORT
JACKIES BUTTE WINTER
JACKIES BUTTE
JACKIES BUTTE SUMMER
DRY CREEK NATIVE
BOWDEN HILLS
WINTER ARK NORTH
BULL CREEK SEEDING
BEBER SEEDING
COYOTE
Allotment Names
Pastures
Allotments
Roads
Sections
Township
Jackies Butte Fire
Ownership
Bureau of Land Management
Private
N
W
E
S
No warranty is made by the Bureau of Land management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.


Jordan Creek Fire
Map 5b
TE #4
AROCK NORTH
Elec. Fence
AROCK NORTH
Elec. Fence
EIGUREN INDIVIDUAL
ROME INDIVIDUAL
Pastures
Allotments
Roads
Sections
Township
Jordan Creek Fire
Ownership
Bureau of Land Management
Private
N
W
E
S
No warranty is made by the Bureau of Land management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.