

Double J Fire Restoration & Rehabilitation Environmental Assessment

#DOI-BLM-OR-L040-2014-06-EA

PROJECT LOCATION: T40S R12E Sections 08 and 17; Located approximately 6 miles south of Bonanza, Oregon (see attached map).

BLM OFFICE: Klamath Falls Resource Area, Lakeview District

CONFORMANCE WITH APPLICABLE LAND USE PLAN

This project has been designed to comply with the land use allocations, management direction, and objectives of the 1995 Klamath Falls Resource Area Resource Management Plan (RMP). The project design and recommendations for implementation are contained in the RMP and a number of other supporting documents including:

- Final Environmental Impact Statement, Vegetation Treatment on BLM Lands in Thirteen Western States (1991)
- Northwest Area Noxious Weed Control Program FEIS and ROD (1985) and Supplement (1987)
- Klamath Falls Resource Area Integrated Weed Control Plan EA (July 21, 1993)
- Vegetation Treatments Using Herbicide on BLM Lands in Oregon FEIS (July 2010)

This Environmental Assessment is tiered to the Final - Klamath Falls Resource Area Resource Management Plan and Environmental Impact Statement, September 1994 (KFRA RMP/EIS).

PURPOSE AND NEED FOR ACTION

The Double J Fire was one of a few small fires caused by lightning from thunderstorm activity on August 22, 2013. The fire was wind-driven and rapidly burned northwest before winds shifted and the fire was slowed by fire retardant on all sides. The area within the 140-acre fire perimeter is comprised of BLM-managed lands (130 acres) and private lands (10 acres). The fire was contained on August 23, 2013.

The purpose of this project is to address resource concerns resulting from the Double J Fire through management that is consistent with objectives in the RMP. These objectives include the following:

- Contain and/or reduce noxious weed infestations on BLM-administered land using an integrated plant management approach.
- Avoid introducing or spreading noxious weed infestations in any areas.
- Enhance and maintain biological diversity and ecosystem health in order to contribute to healthy wildlife populations.

Interagency guidance and BLM policy, as stated in the Interagency Emergency Stabilization and Rehabilitation (ESR) Handbook and Emergency Stabilization and Burned Area Rehabilitation Handbook (February 12, 2007 – H-1742-1), is to provide for emergency stabilization and rehabilitation where fire has an adverse impact on vegetation, soils, and watersheds and also to minimize other adverse changes to the extent practicable.

Need

The area burned by the Double J Fire is in need of immediate stabilization/rehabilitation to reduce the invasion and increased dominance of undesirable flammable invasive annual grasses, and to reduce the potential spread of noxious weeds, preserve on-site productivity, and minimize soil movement.

DESCRIPTION OF PROPOSED ACTION

Herbicide Treatment: The project area was known to have existing patchy and scattered medusahead rye populations in existence before the fire. Application of imazapic (trade name Plateau) is proposed as a treatment for all 130 acres managed by the BLM. Imazapic would be applied in the Fall of 2014 by hand, with backpack sprayers, at a rate of 6 oz/acre (0.178 pounds a.e./acre). Herbicide application would be in conformance with label instructions. Pesticide Use Proposals (plans) would be prepared for weed treatments and comply with policy (BLM Manual 9011, H-9011, and 9015).

This treatment is designed to prevent the medusahead rye from spreading from pre-fire populations into burned areas that were devoid of the species. Medusahead rye has been shown to take advantage of the disturbance created by a fire and form a monoculture. Post-treatment surveys will be conducted for new populations of noxious weeds, and spot treatments would be repeated as needed. Imazapic application combined with seeding application is the most effective way to prevent medusahead rye from invading this landscape further and creating a monoculture (Davies, et al. 2011).

Seeding: Approximately 130 acres within the Double J Fire will be ground seeded by hand. Seeding is designed to reduce the potential for wind/water erosion on the site, as well as decrease opportunities for noxious and invasive species to become established. Seed would be spread by hand seeders (with incorporation by raking) and would be completed over a few days. Seeding would be conducted in the late fall or early winter. The seed mix would consist of all native grass and brush species in the following approximate amounts: bottlebrush squirreltail 25%; Idaho fescue 25%; Sandberg's bluegrass 25%; and 25% brush species such as low sagebrush and bitterbrush.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

Use of ATVs or Mechanical Equipment to Apply Imazapic or Distribute Seed

Due to the widespread large rocks and patchy invasive annual grasses present in the project area, the use of mechanized equipment and motorized vehicles (vehicle use, ATV use, seed drilling, etc.) are not realistic options available for this rehabilitation effort.

Aerial Application of Herbicide and Aerial Seeding

Due to the small size of the burned area, aerial application of chemical herbicide and aerial application of seed would not be cost effective.

ANALYSIS OF ENVIRONMENTAL IMPACTS

The affected environment reflects the existing condition that has developed from all past natural events and management actions within the project area (and/or 5th field watershed). It is a combination of natural and human caused fires, fire suppression, road building, timber harvesting, grazing, fuel reduction treatments, and the effects of recreational use. The current condition assessed for each affected resource is a result of all past natural events and

management actions. It is therefore unnecessary to individually catalog all past actions in this EA. Such detail would be irrelevant to making a rational decision among alternatives. The important value of this EA is to assess and display for the deciding official the impacts of the alternatives on those resources as they exist today, to allow a determination if the resulting project effects and/or cumulative effects are either significant or are greater than those analyzed in the RMP EIS.

Affected Environment for Botany and Weeds

The fire occurred within juniper and sagebrush habitat with perennial and annual grasses containing a very high level of surface rock. The fire severity was moderate throughout, with most vegetation burned within the perimeter. Approximately 40% of the unit was burned down to mineral soil. Perennial plant mortality is estimated to be 75%, which includes 90% of sagebrush within the burn, 50% mortality of juniper, and a large percentage (90%) of perennial grasses. Native perennial grass species present in the area include bottlebrush squirreltail, Idaho fescue, and Sandberg bluegrass. Invasive annual grasses, such as medusahead rye (*Taeniatherum caput-medusae*) and North Africa grass (*Ventenata dubia*), were present before the fire, totaling approximately 50 acres within the fire perimeter. Low sagebrush and western juniper were present as native woody species pre-fire.

Environmental Impacts for Botany and Weeds

No Action

Under the No Action Alternative, there would be no noxious weed treatment with herbicide to help control existing populations and reduce risk of further establishment of noxious weeds and annual grasses. In addition, the objectives of the BLM's ESR program to mitigate the adverse effects of fire on local resources in a cost effective and expeditious matter would not be met under this alternative. Noxious and invasive weeds would continue to spread onto areas burned to mineral soil and would spread out from current populations. No seeding would take place to facilitate the recovery of the habitat and discourage weed species from taking hold. Noxious and invasive weeds would become the dominant vegetation in this area, and overall biodiversity and habitat quality would be lowered. Once established, noxious and invasive weeds are very expensive and difficult to control or eliminate. Fire hazard would increase due to invasive annual grass tendency to become dried out earlier than native vegetation. Extra thatch and dry vegetation from invasive annual grasses ignite easily and spread fire rapidly, as invasive annual grasses tend to form monocultures that carry wind-driven fire across landscapes quickly.

Proposed Action

The proposed imazapic (Plateau) application and its impact to vegetative communities are as follows: Treating with Plateau would have moderate risk to no risk to the health of upland vegetation (BLM Veg. FEIS pp. 4-49 and 53). Applications of 6oz/acre (0.178125 pounds/acre of active ingredient imazapic) would be below the maximum rate of 0.1875 pounds/acre analyzed by the BLM FEIS (CH 3, pp. 60) and BLM Veg. FEIS (Appendix C-9) authorized to treat infested sites (BLM FEIS C-9). It has been observed that fall applications with 6oz/acre Plateau would further reduce the risk from moderate to low from direct spray on non-target plant species because these plants are dormant (Davies 2010; Davies and Sheley 2011). Plateau would reduce medusahead rye and other invasive annual grasses and allow existing native plants or seeded areas the opportunity to compete for available resources such

as water, nitrogen and other nutrients, and re-establish the site once occupied by noxious and invasive weeds.

Within the burned-area perimeter, the proposed action to seed perennial grasses and sagebrush provides the highest likelihood that vegetation would establish and persist to carry out ecological processes. If establishment is successful, there would be green plants through much of the growing season. This would break up the uniform fuel conditions created by invasive annual grasses that typically become dry and flammable by the end of June. Thus, even in poor production years, there would be plants present to protect the soil. While medusahead rye produces a dense ground cover in good years, following several years of poor production, the soil can be nearly bare. Sheet erosion occurs under the medusahead rye thatch layer. The seeded species create more structure than a medusahead rye-dominated community. Successful seeding of the selected species would interrupt the transition to an invasive annual grass-dominated community, introduce a longer green period through the growing season, provide more habitat values than an invasive annual grass community, and allow plant succession to occur. In comparison to a medusahead rye-dominated community, establishment of native plants would be on a faster successional trajectory towards a healthy native plant community.

Bottlebrush squirreltail is a native perennial grass which can act as an early-seral species by competing with and replacing invasive annual grass species following fire. Its ability to germinate in the late fall and early spring, and at a wide range of temperatures, adds to its capacity to compete with medusahead rye. Idaho fescue and Sandberg's bluegrass, both native perennial bunchgrass species, are also common on the site and will be used in the seed mixture. Low sagebrush is a native sagebrush species common in the project area that was found on the site prior to the fire and good for wildlife habitat.

The selected species and their seeding rates have been set at a rate that best balances the cost of the seed with their ability to thrive on the site. Bottlebrush squirreltail is a mid-seral species that typically thrives on disturbed sites, and was the co-dominant native species (along with Idaho fescue and Sandberg's bluegrass) on the site prior to the fire.

Affected Environment for Livestock Grazing

The proposed project area is within the Rajnus and Son Allotment (#00864). The allotment has a livestock grazing lease that authorizes 110 AUMs of cattle use. The season of use is from May 1 to June 30 with 55 pairs of cattle.

A Rangeland Health Standards Assessment (RHSA) was completed for the allotment in 2007. Standard 1, Watershed Function-Uplands and Standard 3, Ecological Processes were not met on the allotment. The primary reason for not meeting these standards was the large infestations of medusahead rye, an invasive annual grass species. Following discussions with the grazing lessees, the allotment was voluntarily rested from livestock grazing from 2008 - 2013. The allotment will continue to be rested from livestock grazing until monitoring determines that the medusahead rye has been successfully controlled on the allotment.

Environmental Impacts for Livestock Grazing

No Action

Without seeding and spraying to control invasive species, noxious weeds and annual grasses would re-establish and become dominant on the burned site. Weeds and the annual grasses cheatgrass, North Africa grass, and medusahead have little forage value. While cheatgrass has nutritive value and is palatable before seed ripe, this drops quickly following seed ripe. Medusahead is a poor forage species for both livestock as well as wildlife and has low palatability because of its high silica content. Without recovery of desirable perennial species, forage on the site would be greatly reduced for livestock. The livestock carrying capacity of the burned area would begin to decline as desirable species are replaced with non-desirable species.

The allotment would continue to be rested from livestock grazing as the medusahead and other annual invasive grass species would not be controlled.

Proposed Action

Under the Proposed Action, treatment of the burned area with the herbicide imazapic would lessen the chance for medusahead and other invasive annual grasses to reestablish on the burned area in the short term. This would allow any existing native plants or seeded species the opportunity to compete for available resources such as water, nitrogen and other nutrients. The herbicide application would have no direct physical effects to livestock because livestock would not be present in the area during and following the application.

Under the Proposed Action, seeding of desirable species following the herbicide treatment would also help limit invasive species infestation into the burned area in the short term. The treatment with herbicides and the seeding of perennial grass species under the Proposed Action would provide for better livestock forage in the treatment area than the No Action Alternative.

The allotment would continue to be rested from livestock grazing as medusahead and other annual grasses would not be controlled outside of the burned area treatment.

Affected Environment for Hydrology

The project area is located within the Poe Valley – Lost River subwatershed and comprises less than 1% of the subwatershed. The nearest waterbody, Simms Creek, is an intermittent stream over a quarter mile from the project area. The moderate intensity fire that burned most vegetation within the perimeter has left the landscape without adequate cover and decreased hydrologic function. These functions include interception and subsurface capture of rainfall, soil erosion protection, and slow release of surface run-off. The burn area is currently susceptible to erosion due to increased runoff potential and lack of vegetation cover.

Environmental Impacts for Hydrology

No Action

Not treating the project area with herbicide and seeding would have the effect of continued reduced hydrologic function due to the expected infestation of noxious weeds dominated by annual grasses such as medusahead rye. The reestablishment of noxious weeds and annual grasses would reduce infiltration and reduce protection from erosion that would otherwise be provided by native perennial plant cover.

Proposed Action

Imazapic application Standard Operating Procedures would minimize impacts to existing native vegetation and water quality. Impacts would be minimized because the treatment site is not near or adjacent to perennial or intermittent streams, ponds, or reservoirs. Herbicides are usually picked up in stream flow by the first storm large enough to create flow in the channels. The BLM Vegetation FEIS pp. 4-28, Table 4-9 quantifies the off-site movement potential for imazapic. Groundwater leaching potential ranges from low to high while surface water runoff is low. Even if an herbicide has runoff or leaching potential, the likelihood of it reaching a water body also depends on site characteristics. For the proposed treatment site, groundwater levels are likely greater than 100 feet below the ground surface and precipitation is low (about 14 inches). Therefore, the overall potential for that herbicide to reach groundwater before degrading would be very low (BLM FEIS, pp. 4-26). These site characteristics of the proposed project area, coupled with current buffer protections, would help to minimize accidental direct application or drift at concentrations high enough to impair water quality.

Risk to non-target riparian vegetation associated with herbicide use would be low or non-existent due to the location of the proposed treatment. The proposed method of hand treatment decreases the risk for accidental direct spray or drift onto non-target species. As long as standard operating procedures for stream buffering and chemical application are followed, there would be no measurable risk to water resources and wetlands/riparian areas.

Benefits to the project area would occur from the hand seeding treatments designed to establish native perennial grasses and shrubs. Once adequate perennial vegetation is established, the potential for erosion would be reduced and infiltration of rainfall or snowmelt increased.

Affected Environment for Soils

The project area is located on a southwest-facing hill slope at approximately 4,200 feet in elevation. The Natural Resources Conservation Service (NRCS) soil survey identifies map unit 50E- Lorella very stony loam, 2 to 35 percent south slopes, as the primary soil type within the project boundary. These shallow soils formed in very rocky material weathered from volcanic tuff and basalt flows. They are characterized by a very cobbly loam surface over very cobbly clay loam and clay subsoils. Lorella very stony loam soils are found on warmer (mesic) sites, typically supporting plant communities of western juniper, grasses, bitterbrush, and sagebrush (NRCS, 1985).

Sites comprised of Lorella soils are highly susceptible to fire damage, a characteristic primarily attributable to their large volume of rock fragments. Under severe burn conditions, high rock content increases the rate of heat transfer into the soil, thus increasing the relative risk of creating a water repellent layer, volatilization of essential soil nutrients, and destruction of soil biological activity (NRCS, 2013). With the exception of a few isolated areas of high burn severity however, soil resources within the Double J fire perimeter were not subject to severe burn conditions. Detrimental soil conditions associated with severe fire damage were confined to locations beneath the burned skeletons of scattered juniper and shrubs.

Lorella soils exhibit moderate restoration potential. This characteristic describes a soil's inherent ability to recover from degradation and restore soil functional and structural integrity after a disturbance. Likewise, Lorella soils are moderately suited for rangeland seeding,

indicating that “a successful seeding can be anticipated in 6 or 7 years out of 10...a limited number of plant species are adapted to seeding on the site...and a moderate potential forage production level can be achieved” (NRCS, 2013).

The clayey Lorella subsoils coupled with the semi-arid climate renders the project area highly susceptible to medusahead rye invasions. Post-fire reconnaissance confirms extensive medusahead thatch identified within the burned area and widespread medusahead infestation on lands beyond the perimeter of the fire.

Environmental Impacts for Soils

No Action

Under this alternative, no management treatment would be implemented. Negligible direct effects to soil resources such as compaction/disturbance during implementation of herbicide treatments and ground seeding would not occur. Indirect effects anticipated from the lack of herbicide treatment and ground seeding would be the spread of the invasive medusahead rye noxious weed. Invasive plants can have dramatic effects on soil productivity due to changes in soil characteristics such as nutrient and water availability, organic matter in the soil, diversity and abundance of soil biota, and soil water holding capacity. Invasive plants can also increase the soil surface exposed to wind or water erosion, influence fire-return intervals, and produce toxic chemicals that affect soil organisms (USDA Forest Service, 2011). If herbicide treatments and seeding do not occur, the indirect effects of improved soil conditions due to invasive plant eradication would be lost.

Proposed Action

Hand application of imazapic followed by hand seeding of native species is proposed in the project area. Imazapic application and seeding are likely to have minimal direct adverse effects on soil resources. Studies of herbicide effects on soils indicate there is no evidence of loss of soil productivity. Generally, either no effects or short-term effects have been found at concentrations likely to occur from typical application rates. Short term direct effects to soils could include small amounts of compaction/disturbance during implementation of herbicide treatments and hand seeding; indirect effects could result from changes in plant composition and vegetative cover. In the long-term, treatments could improve soil conditions by removing invasive plants and restoring native vegetation on the site (USDA Forest Service, 2011).

The inherent restoration and suitability limitations of Lorella soils would likely influence success rates of noxious weed eradication and native plant restoration within the project area. Should the Proposed Action be implemented, successful weed eradication and native plant restoration may require multiple herbicide applications and hand seeding efforts.

Affected Environment for Wildlife

This section focuses on species considered special status species that may be affected from proposed management activities. These include species listed under the Endangered Species Act (ESA - listed, proposed and candidate species) and species listed under the BLM special status species policy, such as bureau sensitive and land birds classified as Species of Concern (USDI FWS 2008) by the U.S. Fish and Wildlife Service (FWS).

There are no terrestrial threatened or endangered listed, proposed, candidate species or designated critical habitat under the Endangered Species Act (as amended USDI FWS 1973)

that occur within the project area or that would be affected from project activities. Therefore, the BLM made a “No Effect” determination for all terrestrial listed or proposed species and for designated critical habitat. The proposed area is also not essential habitat for any Bureau Sensitive or land birds classified as Species of Concern by the FWS. Therefore, those species will not be addressed further.

The proposed area is within mule deer winter range and provides habitat to non-special status land birds.

Environmental Impacts for Wildlife

No Action

For non-special status wildlife species such as the mule deer and land birds within the proposed burn perimeter, the quality of habitat would remain in poor condition due to the increase in weeds and the reduction of native vegetation. Current habitat conditions, especially those areas infested with medusahead provide poor nesting and minimal foraging habitat for the land birds and poor quality foraging habitat for mule deer. Loss and degradation of habitat is a major contributor to native wildlife population declines. Medusahead is only modestly palatable and is the least desirable forage plant for mule deer (Bodurtha et al 1989).

Medusahead has been shown to out compete the native vegetation and therefore limit the amount of forage available for mule deer. Additionally, medusahead has been shown to increase the fire frequency, therefore increasing the risk of a stand-replacing fire (Knapp 1998). In the sagebrush ecosystem, frequent fires can remove the shrub component and produce a monoculture of medusahead. The shrub component was reduced substantially from the wildfire and the medusahead infestation, pre-fire condition, had already reduced the quality of wildlife habitat. Under the No Action Alternative, the infestation of medusahead would increase, and the foraging and nesting habitat for land birds and the foraging habitat for mule deer will remain in poor condition.

Proposed Action

Under the Proposed Action, the reduction of medusahead and increase of natives through seeding would be beneficial to wildlife by increasing forage and nesting habitat. Imazapic works by inhibiting a biological pathway that exists only in plants and not in animals, thus making it, along with other acetolactate synthase (ALS) inhibitors, among the lowest risk herbicides for wildlife (BLM FEIS 2010). Imazapic is not highly toxic to most terrestrial wildlife species (BLM FEIS 2010). “Mammals are more susceptible during pregnancy and larger mammals are more susceptible than small mammals. No adverse short-term exposure risks to birds were noted for imazapic, but some chronic growth reduction was noted. None of the risk categories for susceptible or non-susceptible shows any ratings that exceed the level of concern” (BLM FEIS 2010).

CUMULATIVE EFFECTS

Former range management activities and naturally occurring events have resulted in various degrees of soil disturbance within the project area boundaries. Cattle grazing occurred in the project area until 2007. Approximately 50 acres of a previous fuels reduction project, Fuels Treatment Zone (FTZ) 152C, overlaps the Double J fire area in the southwestern half. The FTZ 152C treatments included mechanical cutting and piling of juniper in 2002, followed by pile burning in 2004. Fire suppression activities related to the 2013 Double J Fire included a small amount of dozer line and retardant drops in and adjacent to the project area. Herbicide

application and hand seeding proposed for 2014 could be expected to incur negligible cumulative effects, even if multiple entries are required for successful site restoration. Weed treatments and ground seeding, if successful, can be expected to reduce the risk of soil instability, increase nutrient cycling, and improve soil productivity levels over most of the burned area. The scattered isolated areas affected by high burn severity are expected to recover over time. Wildfires will continue to occur throughout the watershed. Continued implementation of project design features, best management practices, and mitigation would ensure compliance with resource management objectives in the RMP.

DESCRIPTION OF OTHER RESOURCES

Resource values that are either not present in the project area, or would not be affected by any of the proposed alternatives are: floodplains, wilderness study areas (WSAs), areas of critical environmental concern (ACECs), research natural areas (RNAs), paleontological resources, prime or unique farmlands, wild and scenic rivers, lands, air quality, and minerals (modify as appropriate). There are no known hazardous waste sites in the analysis area. For either alternative, no direct or indirect disproportionately high or adverse human health or environmental effects to minority or low income populations are expected to result from implementation of the proposed action or the alternatives.

Cultural resource surveys were conducted and one archaeological site was recorded. The site will be avoided because it is outside the burned area proposed for treatment. No archaeological sites will be impacted by any of the proposed activities.

PERSONS/AGENCIES CONSULTED

The Klamath Tribes	Livestock Lessee
Oregon Department of Forestry	Other Interested Parties

PREPARERS

Johanna Blanchard	Project Lead/Botanist
Steve Hayner	Wildlife Biologist
Andy Hamilton	Hydrologist
Sara Hescocock	Archaeologist
Mike Limb	GIS Specialist
Cindy Foster	Soil Scientist/Hazardous Materials
Rob Roninger	Aquatic Habitat/Fish Biologist
Dana Eckard	Rangeland Management Specialist
Terry Austin	Planner

LITERATURE CITED

Beckham, Stephen Dow. 2000. *The Gerber Block: Historical Developments on the Public Rangelands in Klamath County, Oregon*. Department of the Interior, Bureau of Land Management, Klamath Falls, Oregon.

Bureau of Land Management (USDI) 1995. Klamath Falls Resource Area Record of Decision and Resource Management Plan. June 1995.

Bureau of Land Management (USDI). July 2010. Vegetation Treatment Using Herbicides on BLM lands in Oregon. Final Environmental Impact Statement. Volume 1. BLM/OR/WA/AE-10/077+1792.

Bodurtha, Timothy S.; Peek, James P.; Lauer, Jerry L. 1989. Mule deer habitat use related to succession in a bunchgrass community. *Journal of Wildlife Management*. 53(2): 314-319. [6677] as cited in USDA FEIS database <http://www.fs.fed.us/database/feis/plants/graminoid/taecap/all.html>)

Chemie. DE Information Service. 2009. Herbicide. <http://www.chemie.de/lexikon/e/Herbicide> as cited in Vegetation Treatment Using Herbicides on BLM lands in Oregon. Final Environmental Impact Statement.

Davies. 2010. *Range Ecology & Manage*. 63:564-571

Davies and Sheley. 2011. *Restoration Ecology*. 19:159-165.

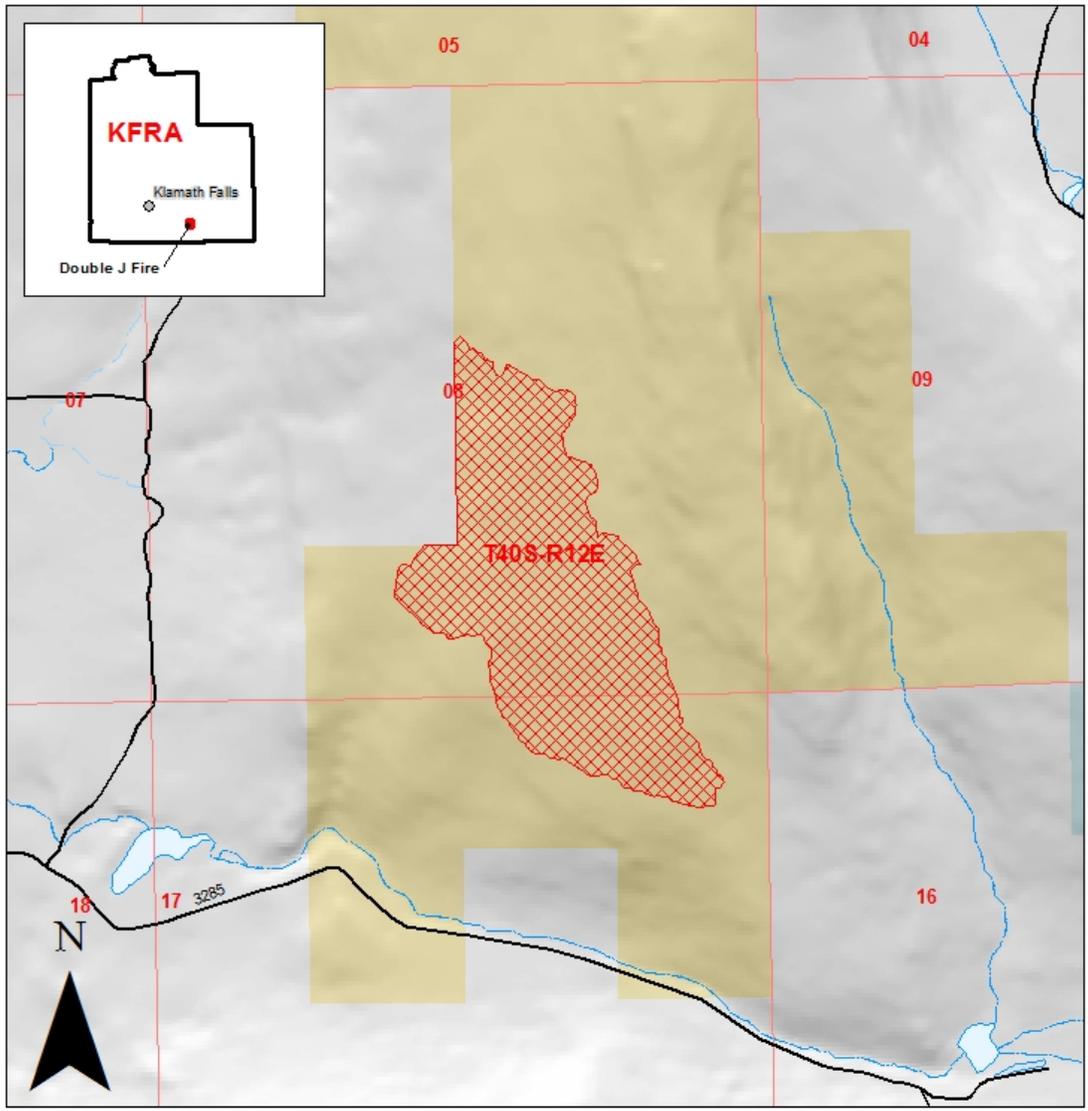
Knapp, Paul A. 1998. Spatio-temporal patterns of large grassland fires in the Intermountain West, U.S.A. *Global Ecology and Biogeography Letters*. 7(4): 259-273. [30109] (as cited in USDA FEIS database <http://www.fs.fed.us/database/feis/plants/graminoid/taecap/all.html>)

Minor, Rick, Stephen Dow Beckham and Kathryn Anne Toepel. 1979. Cultural Resource Overview of the BLM Lakeview District, South-Central Oregon: Archaeology, Ethnography, History. *University of Oregon Anthropological Papers No. 16*. Reprint by Coyote Press.

USDA Soil Conservation Service, Web Soil Survey, 2013. Soil Survey of Klamath County, Oregon Southern Part, version 4. Accessed February 7, 2014.

USDA Forest Service, Fremont-Winema National Forests, 2011. Invasive Plant Treatment Final Environmental Impact Statement.

USDI Fish and Wildlife Service (FWS), 2008. Birds of Conservation Concern. Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, VA. 85 pp.



0 0.125 0.25 0.5 Miles 1:15,000



The accuracy can only be guaranteed by the Bureau of Land Management as the accuracy, availability, or completeness of these data has not been independently verified and may be updated without notification.

NOED: P:\Lakeview\Benny\DoubleJ_ESR\DoubleJ_ESR_2.mxd
 Prepared By: jll@blm.gov
 Current Date: 01/31/2014 11:22:19 AM
 Last Modified Date: 9/24/2013 2:07:07 PM

Double J Fire EA
Lakeview District
Klamath Falls Resource Area
2795 Anderson Ave. Bldg. 25
Klamath Falls, OR 97601
(541) 883-6916

	DoubleJ_Boundary_BLM
	Road
	Perennial Lake / Reservoir
	Intermittent Lake
	Perennial Stream
	Intermittent / Seasonal Stream
	Ephemeral Stream
	Bureau of Land Management
	State
	Private