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In Reply Refer To:
9214 (IDB030)

May 2, 2014

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

NOTICE OF FIELD MANAGER'S FINAL DECISION

Trout Springs Juniper Treatment

Dear Interested Public:

The Bureau of Land Management's (BLM) Owyhee Field Office (OFO) recently completed the Fundamentals of Rangeland Health (FRH) (43 CFR 4180) process for the Trout Springs Allotment. In support of the FRH process, an interdisciplinary team (IDT) of BLM resource management specialists analyzed and summarized available data to identify resource issues and evaluate the allotment under the Idaho Standards for Rangeland Health (Standards) and Guidelines for Livestock Management (S&Gs).

Through the FRH process, the IDT identified a number of resource issues and S&Gs that were not met. Current livestock grazing was the significant causal factor for all Standards not met while the expansion of western juniper (juniper) was identified as an additional significant causal factor for non-attainment of Standards 1, 4, and 8 (both plants and animals). Juniper expansion was determined to be a secondary causal factor for non-attainment of Standards 2, 3 and 7. A Final Grazing Decision was issued on November 13, 2013 that identified the selected grazing management system analyzed in the Trout Springs and Hanley FFR Allotments Permit Renewal Environmental Assessment #DOI-BLM-ID-B030-2009-0030-EA (EA) that will allow for making significant progress toward the S&Gs.

This decision will address the management of juniper identified as a significant causal factor for non-attainment of Standards 1, 4, and 8. A Proposed Grazing Decision will be issued under separate title for implementation of the interim grazing management prescription needed to facilitate the success of the vegetative treatment.

I have determined that the decision to implement two types of juniper treatment is in accordance with the 1999 Owyhee Resource Management Plan (ORMP) will, in conjunction with the Trout Springs Grazing Final Decision, dated November 13, 2013 enable the Trout Springs Allotment to make significant progress towards meeting Standards. In accordance with the EA, this Decision authorizes juniper treatments as outlined in Section 2.2.4 of that document.

-BACKGROUND-

The BLM, in a 2001 Rangeland Health Evaluation/Determination, found that the Trout Springs Allotment was failing to meet all applicable Standards due to current livestock grazing and juniper encroachment. A new permit was issued which made adjustments to grazing management practices. On August 14, 2009, the BLM initiated scoping with the issuance of a scoping package for the permit renewal process for the Trout Springs and Hanley FFR Allotments. The scoping package was issued for a 30-day comment and review to all affected grazing permittees, interested publics, and other State and local governments of record. A full summary of comments received and BLM's response is in Appendix C of the final EA.

After evaluating conditions on the land and reviewing public comments from the scoping process, it was clear that the Trout Springs Allotment contained resource issues that required improvement. Many of these issues were associated with livestock grazing and juniper expansion. The foremost issues brought forward in consideration of the juniper management proposal were:

1) Western juniper encroachment and livestock grazing have adversely affected and altered upland vegetation and watershed conditions away from reference conditions;
2) Sage-grouse habitat may have been reduced due to juniper encroachment and livestock grazing; and,
3) Proposed prescribed juniper burning will increase carbon emissions and may alter wildlife habitat.

A second Rangeland Health Evaluation/Determination was completed in 2012 based on monitoring data collected during 2003 – 2008. This subsequent Rangeland Health Evaluation/Determination identified that Standards were still not being met in the Trout Springs Allotment; livestock grazing and juniper expansion continued to be causal factors. The 2001 and 2012 Evaluation and Determination documents are included in Appendix A of the final EA.

To address resource issues on the allotment, my office prepared and issued the Trout Springs and Hanley FFR Permit Renewal EA in which we considered a number of options and approaches to improving resource conditions. The alternatives in this EA result from the complexity of resource issues identified by the BLM and from scoping comments which recommended developing alternatives with a range of juniper treatments (including no treatment), stocking levels, and grazing seasons. These factors and the failure of the Trout Springs Allotment to meet applicable Standards, with livestock grazing and juniper encroachment being significant causal factors, necessitate that BLM "take a hard look" by analyzing an assortment of alternatives to make significant progress toward meeting all applicable Standards. BLM analyzed juniper

treatments in conjunction with grazing management in alternatives B-E of the EA. Three additional juniper treatment alternatives were identified but not analyzed in detail.

On July 12, 2012, the Draft EA was issued for a 30-day review period. Comments were received from the Southwest Region of the Idaho Department of Fish and Game, Owyhee Range Service (on behalf of Hanley Ranch Partnership), Ted and Dorothy Payne, Brett Nelson and Western Watersheds Project (WWP). Comments were considered and incorporated into the Final EA or were addressed individually (Appendix N of the final EA).

Resource Issues and Conditions

As noted above, the BLM completed Land Health Assessments, Evaluations, and Determinations for the Trout Springs Allotment in 2001 and 2012 (Appendix A of the final EA), the latter based on data collected between 2003 and 2008[1]. The 2012 Evaluation and Determination documents concluded that the resources on the Trout Springs Allotment were not meeting the Idaho S&Gs. Although BLM determined that current livestock grazing was the significant causal factor for non-attainment of all applicable Standards, the BLM also found that juniper expansion (increase from that expected for the ecological sites that occur within the Trout Springs Allotment) was also a significant causal factor for not meeting the following Standards:

a. Standards 1 (Watersheds) and 4 (Native Plant Communities) are not being met, as indicated in the uplands by a reduction of plant vigor, loss of key herbaceous plant species, increased juniper, loss of litter and cover necessary for nutrient cycling and soil protection, reduced native species diversity (particularly of palatable plants), reduced seed production and dispersal, and reduced seedling survival.
b. Standard 4 (Native Plant Communities) is not being met as indicated by the reduction in large perennial bunchgrasses (bluebunch wheatgrass) and a reduction of shrubs (big sagebrush and mountain mahogany) expected for the ecological sites. Ground cover, an important indicator of proper functioning ecological processes, indicated some improvement in basal vegetation and a reduction in stable ground cover elements, although changes were not statistically significant .
c. Standard 8 (Threatened and Endangered Plants and Animals) is not being met. The limited abundance and vigor of desirable native bunchgrasses and forbs, and loss of shrubs and associated community structure indicates that the habitat requirements of many special status animal species are not being adequately met throughout much of the allotment, likely resulting in reduced numbers and/or species diversity. Riparian areas that are not in proper functioning condition have resulted in impacts to riparian-dependent special status species, including redband trout, spotted frogs, and neotropical birds.

Although the 2012 Grasshopper fire and 2013 Juni fire burnt part of the Trout Springs Allotment, juniper treatment is still proposed because the fire covered less than 13% of the proposed treatment acres and because the percentage of seral juniper killed was lower than the specified objectives for the treatment (See EA at Section 2.2.4). Therefore, after carefully considering the comments received for the EA and making the appropriate revisions, and considering the current

[1] Refer to the November 13, 2013 Final Grazing Decision for further information on the data used in evaluating rangeland health.

situation with wildfire impacts in 2012 and 2013, it is my decision to authorize the implementation of the juniper treatment along with the associated interim grazing management as analyzed in the EA.

Finding of No Significant Impact (FONSI)

A Finding of No Significant Impact (FONSI) was signed on May 1, 2014, and concluded that the Trout Springs Juniper Treatment is not a major federal action that will have a significant effect on the quality of the human environment, individually or cumulatively with other actions in the general area. That finding was based on the context and intensity of impacts organized around the 10 significance criteria described at 40 CFR § 1508.27. Therefore, an environmental impact statement is not required. A copy of the FONSI for EA No. DOI-BLM-ID-B030-2009-0030-EA is available on the web at:

https://www.blm.gov/epl-front-office/eplanning/nepa/nepa_register.do

Therefore, it is my Final Decision to implement the following juniper treatments within the Trout Springs Allotment:

-FINAL DECISION-

In accordance with the ORMP, and upon my review of EA # DOI-BLM-ID-B030-2009-0030-EA, I have determined that western juniper (juniper) treatments are necessary within the Trout Springs Allotment. It is my final decision as the authorized officer to implement the following treatments, management objectives, and Standards Operating Procedures (SOPs).

TREATMENTS:

Treatments will consist of hand cutting/girdling and broadcast burning approximately 19,500 acres of public lands and hand cutting/girdling and jackpot burning of approximately 3,800 acres of public land as illustrated on the treatment map (attached Map 1). Both treatment types will occur over the next ten years and will conform to the Standard Operating Procedures (SOPs) outlined in this decision to minimize impacts to resources.

Hand girdling will consist of cutting around the circumference of the tree, into the cambium layer to kill the tree. Broadcast burning will consist of allowing prescribed fire to carry within a prescribed burn perimeter. Due to juniper expansion and outcompeting the shrub and herbaceous layers over time, fire is not able to function in these systems in a natural manner therefore slashing and girdling of juniper is required to build a consistent fuel bed to allow fire to carry through these stands. Jackpot burning or slash burning will consist of burning downed trees and parts thereof to consume remnant slash from cutting treatments without consuming adjacent desirable species such as sagebrush and mahogany.

In broadcast burn or jackpot burn treatment areas, old growth junipers will not be targeted. Old growth trees are identified by rounded, flat, open, or irregularly shaped canopies as opposed to seral trees which are easily distinguished by tight, conical (Christmas tree) shape. Additional indicators of old growth trees include deeply furrowed, fibrous, and reddish bark; presence of lichens; and large branches near the base of the trunk (Miller et al. 2005). Old growth juniper

will not be cut. Concentrations of old growth juniper are not being targeted, and are not expected to burn because old growth juniper is largely restricted to rocky, sparsely vegetated sites that historically burned infrequently. A lack of fine fuels associated with these sparsely vegetated sites resulted in infrequent fires, thereby making juniper the climax species there.

The planned treatment will occur in areas where good herbaceous plant recovery is expected, based on the soil types, precipitation zone, and existing plant composition. Therefore, large-scale post-fire broadcast seeding is not planned. A possible exception to this will be if fire breaks are constructed in the event of an escape fire situation. In that case, the fire breaks and any other unplanned disturbed areas will be broadcast seeded (with native seed) and, where practical, harrowed with a UTV, as discussed under the SOPs.

1) Hand cut/girdle and broadcast burning -

This treatment will occur primarily within the mountain big sagebrush, mountain shrub, mountain mahogany, riparian, meadows, and aspen sites heavily encroached by juniper. The mountain big sagebrush, mountain shrub, and mountain mahogany potential sites are represented by the Loamy 13-16" and Mahogany Savanna 16-22" ecological sites (Map 7 of the EA). The riparian, meadow, and aspen communities occur as small inclusions within these larger ecological sites.

To build a consistent fuel layer that will carry prescribed fire within these targeted plant communities, seral juniper sufficient to carry a broadcast burn will be cut or girdled with chainsaws. The combination of cutting and girdling provides a fuel layer that is receptive to ignition, can carry fire into tree crowns, and generally limits (controls) where prescribed fire will burn, based on where the cutting and girdling occurs.

Smaller, seral juniper trees, less than 12 inches in diameter, will be completely severed from the stump and felled, while some of the larger seral trees will be girdled. After completion of these treatments, the areas will be broadcast burned in the fall. This timeframe for burning can occur from August to October, depending on the elevation and annual weather conditions. The proposed units will be ignited using both aerial and ground ignition techniques. Standard operating procedures to reduce smoke emissions on prescribed burns include burning under dry fuel conditions and when the weather is predicted to carry smoke up and away for better atmospheric dispersion.

The broadcast burn will be implemented under conditions designed to result in 50-70% seral juniper mortality within the targeted vegetation types. If this level of mortality is not reached in the initial broadcast burn, subsequent treatments may be implemented to achieve this objective. A mosaic of burned and unburned patches within the broadcast burn units is expected, as witnessed in the 2012 Grasshopper fire and 2013 Juni fire. This mosaic will be affected by the amount of vegetation present, degree of cutting/girdling, local topography, weather and fuel moisture conditions during the prescribed burn, and ignition methods and patterns. Fire is an imprecise tool, so results cannot be guaranteed, but a mosaic of burn patch sizes from ½ acre to about 20 acres is anticipated, although larger burn patches will be acceptable. Broadcast burn ignition will concentrate in pre-treated (slash and girdle) units of seral juniper. Patches of

sagebrush or mahogany within the broadcast burn units will be avoided during the ignition phase.

2) Hand cut/girdle and jackpot burning –

This treatment will be used in larger stands of old growth mahogany and less rocky low sagebrush sites. These areas include the old mahogany stand (2,174 acres) located along the Juniper Mountain Road in Pastures 1A, 1B, and 2A, and the Shallow Claypan 12-16" ecological sites that comprise approximately 3,800 acres of the allotment. Inclusions of riparian, aspen, old growth juniper and meadows (undergoing seral juniper encroachment) occurring within these larger ecological sites will also be treated.

This treatment also consists of hand cutting/girdling but instead of following up with broadcast burning, only the concentrations of debris created, or jackpots, will be burned. No piling of debris will occur. In low density juniper areas, the slash may be left on-site and not burned. Also, most of the seral trees in targeted areas will be cut/girdled, as opposed to a smaller percentage under the broadcast burn treatment. This treatment allows for only the jackpot of fuels to be burned and not the surrounding vegetation. Because burn patches will normally be confined to the individual tree debris zone, most patches will be small (less than two acres), although some larger patches may also occur. Within large mahogany stands, the treatment will be girdling without burning so as not to threaten mahogany individuals. Jackpot burning will occur in the late fall ,winter, and early spring months when conditions are cool and moist, thereby preventing fire from spreading outside of the slash, and to minimize heat input into the soil.

3) Non-Treatment Areas -

Areas identified for no juniper treatment include the Hanley FFR, North Fork Owyhee Wilderness, and nearly all of the Fairylawn Pasture. Additional non-targeted areas include the Very Shallow Stony Loam and Rocky Canyon ecological sites, and inclusions of old growth juniper and old growth mahogany that lack much of the encroaching juniper within the larger broadcast and jackpot burn units.

No pre-burn cutting or intentional lighting will occur within these areas, and it is unlikely that fire will carry into these sites due to the arrangement of fuels and lack of fuel continuity. As a result internal control lines will not be constructed or required to prevent fire impacting these sites.

MANAGEMENT OBJECTIVES:

1) Broadcast Burning -

a) Seral (non-old growth) juniper mortality is 50-70% within Phase 2 and 3 juniper encroachment areas post-treatment.
b) Post-treatment, burn canopy and ground cover of herbaceous vegetation will be at least 80% of what is found in unburned islands and adjacent areas after the second growing season.
c) Post-treatment, aspen leaders subjected to burns are an average height of at least five feet on areas accessible to livestock after the second growing season.

2) Hand cut/girdle and Jackpot Burning:

a) Treat all seral trees (non-old growth) in targeted areas, allowing for only jackpot fuesl to be burnt.
b) Post-treatment, burn canopy and ground cover of herbaceous vegetation will be at least 80% of what is found in unburned islands and adjacent areas after the second growing season.
c) Post-treatment, aspen leaders subjected to burns are an average height of at least five feet on areas accessible to livestock after the second growing season.

STANDARD OPERATING PROCEDURES (SOPs):

1) Broadcast Burning -

- To minimize heat and smoke exposure to fire holding crews, and minimize ground disturbance that will result from establishing new fire breaks, existing natural and human-made fire breaks will be used where possible. Accordingly, about 1,706 acres of public, State, and private land located west of the Mud Flat Road within the Pleasant Valley Allotment and Pleasant Valley FFR is included within the broadcast perimeter and may be treated simultaneously with the BLM portion, with proper authorization from the land owner. This will allow Mud Flat Road to serve as an existing fire break. In addition, 667 acres of public and private land within a portion of the Squaw Creek FFR (located east of Squaw Creek) will also be included.
- On short portions of existing roads, dozers or graders may be needed to clean out vegetation which could compromise their usefulness as fire lines, and to improve small portions of these roads which may be inaccessible to BLM fire vehicles. A possible exception will be to protect structures on private lands included in the burn perimeters, and to create fuel breaks between the public and private land should the private landowners decide not to allow BLM to burn on their land. Rehabilitation of these areas could include seeding the disturbed fuel break areas.
- Fire engines, support vehicles, and all-terrain vehicles (ATVs) will be used to contain the fire within control lines and for cutting efforts. Travel will be restricted to existing trails, unless emergency situations arise and as authorized by the incident commander.
- In accordance with BLM prescribed fire policy, a contingency area is proposed outside the burn perimeters to act as a buffer should a fire burn outside the perimeters. If this happens, the fire will be suppressed in the contingency area and burning operations could then continue in the

project area. It is unlikely that the fire will carry into the wilderness, as no pre-treatment work will occur to make fire carry, however, fire could finger into the wilderness area. No ground-disturbing suppression techniques will be used in the wilderness. Suppression in the wilderness will be in accordance with current BLM policy for wilderness fires.

- The undercarriage of all vehicles involved in the prescribed burn will be cleaned before traveling to the project area to reduce the introduction of noxious weed seed.
- Burning will be conducted in accordance with the Idaho-Montana Airshed Group (Airshed Group) guidelines. Permission from the Airshed Group is required prior to ignition to ensure local air quality standards will be met.
- In accordance with the Owyhee RMP, besides prescribed burns, wildfire will be allowed to play its natural role through the use of unplanned ignitions.
- Burning within identified sage-grouse habitat (Map 8) will be completed between July 15 and January 30.
- Broadcast burning will not be conducted within BLM-stipulated buffer zones of raptor nest sites during the breeding season. Buffer zones will be dependent on species, seasonal timing restrictions, and nest site activity status (See Table 1 - Raptor Timing and Buffer Stipulations below). Because nesting raptors may be shielded from disturbance by vegetation and/or topographic features, buffer areas may be individually developed and modified based on 3D analytical methods and/or landscape features (e.g., view-shed analysis, physiographic barriers such as cliffs and canyons).

Table 1 - Raptor Timing and Buffer Stipulations

Species	Timing[1]	Breeding Season Nest Site Buffer (miles)[2]
Bald Eagle	Feb 1 – July 31	0.5 – 1.0
Peregrine Falcon	Feb 1 – July 31	1.0
Feruginous Hawk	Feb 1 – July 31	1.0
Golden Eagle	Feb 1 – July 31	0.5
Northern Goshawk	Feb 1 – July 31	0.5
Prairie Falcon	Feb 1 – July 31	0.5
Red-tailed Hawk	Feb 1 – July 31	0.33
Swainson's Hawk	Feb 1 – July 31	0.25
Burrowing Owl	Feb 1 – July 31	0.25

[1]Indicates timeframes for prohibiting broadcast/jackpot burning and hand cutting/girdling around nest sites with active breeding attempts or until dispersal of young.
[2]Buffers apply to nest sites with active breeding attempts.

- Any new raptor nests discovered during treatment activities will be reported within 24 hours by phone or e-mail to the OFO Wildlife Biologist. Protection of these nest sites will be handled on a case-by-case basis.
- Pre-treatment fire crews will take appropriate measures based on topography, vegetation, and fuel loads to ensure that broadcast burning does not remove or damage Columbia spotted frog occupied habitat unless otherwise approved by the Authorized Officer.
- Impacts to Columbia spotted frogs will be avoided by prohibiting vehicles within occupied habitat.

- Existing native species are expected to respond favorably to juniper treatments and changes in livestock management, therefore the need to apply seed is not anticipated except in localized disturbed areas. Where seeding is necessary native species will be given preference for re-vegetation utilizing the most suitable available seed source. The use of aggressive non-native species will be avoided.
- Necessary additional archaeological inventories and mitigation plans will be coordinated in consultation with affected Tribes and the Idaho State Historic Preservation Office, as applicable. The OFO Archaeologist will review burn plans prior to project implementation. If significant cultural resources were encountered within the project area, project implementation will be postponed and the OFO Archaeologist will be notified. Prior to resuming work, historic property documentation and evaluation will be completed.
- Pastures with more than an incidental amount of broadcast burning may require rest for the year prior to burning (to provide adequate fine fuels to carry the prescribed burn), and will require a minimum of two growing seasons rest from livestock grazing following prescribed fire. Necessary conditions for resumption of grazing include the following, which will be implemented through a separate grazing decision:
    a. Canopy and ground cover of herbaceous vegetation will be no less than 80% of what is found in the unburned islands and adjacent areas after the second growing season.
    b. Aspen leaders will reach an average height of no less than five feet on areas accessible to livestock.

2) Hand Cutting and Girdling Treatments -

- Juniper felling, jackpot burning and girdling will be used to control seral juniper in areas not identified for broadcast burning.
- Undercarriages of ATVs will be cleaned before entering the treatment areas to reduce the accidental introduction of noxious weed seed.
- In accordance with the ORMP, juniper products, such as fire wood and posts will be made available to the public where feasible.
- Pickups and larger vehicles associated with cutting treatments and wood gathering activities, as well as support vehicles, will be restricted to established roads and trails.
- Trees will be cut to a stump height of eight inches or less.
- When juniper are cut for jackpot burning or just cut and leave, no live branches will remain on the stump after the tree is cut. Cutting crew camp locations will be pre-approved by the Authorized Officer.
- Cutting within identified key sage-grouse habitat (Map 8 of the EA) will be completed between July 15 and January 30.
- Removal or disturbance (i.e., limbing, felling, or girdling) will not occur to any tree containing a raptor nest (including large cavities suitable for nesting).
- Cutting activities will not occur within breeding nest site buffers (Table 1) until nest failure or dispersal of young. For cutting treatments scheduled to occur during the breeding season, activity status will be confirmed between February 1 and July 31 of the current breeding season by conducting field surveys. Because nesting raptors may be shielded from disturbance by vegetation and/or topographic features, buffer areas may be individually developed and modified based on a viewshed analysis.

- Any new raptor nests discovered during treatment activities will be reported within 24 hours by phone or e-mail to the OFO Wildlife Biologist. Protection of these nest sites will be handled on a case-by-case basis.
- Maintenance activities consisting of hand cutting young juniper that come in after the initial cutting, girdling, and/or burning treatments may occur over the life of the EA.
- Known, significant archaeological sites will be avoided within the cutting areas.

-RATIONALE-

Earlier in this decision I identified the main issues brought forward for consideration of the juniper management proposal. My selection to implement vegetative treatments of juniper as described in the EA is the result of my understanding of the landscape and in order to fully enable the Trout Springs Allotment to make progress towards meeting Standards 1, 4 and 8. In addition, the treatment is needed to ensure juniper expansion does not become a significant causal factor for the non-attainment of Standards 2, 3 and 7. The following addresses the three foremost issues that I considered in making this decision:

Issue 1: Western juniper encroachment and livestock grazing have adversely affected and altered upland vegetation and watershed conditions away from reference conditions.

Changes to the term grazing permit have been identified through a Final Grazing Decision issued November 13, 2013. These changes make the first step in making progress toward attainment of the Idaho S&Gs. Because juniper has been identified as a significant causal factor for non-attainment of Standards 1, 4 and 8 (both plants and animals), BLM is required to take appropriate steps to ensure progress towards meeting Standards are made in accordance with BLM H-4180-1: Rangeland Health Standards (2001). BLM also identified that juniper expansion is a secondary factor for non-attainment of Standards 2, 3, and 7.

Juniper treatments will target all phases of juniper stands. Although Phase 3 areas in general are less likely to recover after burning, juniper stands in the Trout Springs Allotment (including Phase 3 stands) contain adequate herbaceous understory vegetation for a successful post-fire recovery. As discussed in Section 3.2.1 of the EA, density plot data and observations from the 2007 Crutcher Fire show the type of increase in native herbaceous vegetation expected after juniper treatments. Density plot data averaged 8.5 deep-rooted perennial grass plants/m^2 in the Trout Springs Allotment, indicating adequate understory exists to respond once juniper is treated. The Crutcher Fire resulted in an increase in herbaceous vegetation in both heavily encroached mountain big sagebrush and lightly encroached low sagebrush areas. Juniper treatment of cutting followed by prescribed burning is expected to be of somewhat lower severity than wildfire, and result in similar or better herbaceous vegetation recovery. These treatments will be implemented over the next ten years to allow the allotment to meet or progress towards meeting ORMP objectives and Standards 1, 4 and 8, along with restoring existing shrub steppe, aspen and riparian communities that are/have transitioned to juniper woodlands (Maps 4 and 6 of the EA).

Management objectives as brought forward in the EA for aspen stand health have been adjusted to 5' instead of 4' leader heights in order to improve parent stands impacted by fire that could be subjected to grazing use. Literature supports that for improvement of aspen stands leader heights should reach a minimum of 58.8-70 inches before subjected to use by cattle (USDA 1985, Strong et. al. 2010). There would not be additional impacts as originally analyzed by the EA with this modification.

Specific to upland vegetation and watershed function, the vegetative treatments will result in the following:

- Short-term loss of vegetative cover that could increase soil erosion potentials in the upland and riparian areas. Sections 3.1.2.2; 3.1.2.5; 3.2.2.2; 3.2.2.5; 3.3.2.2; 3.3.2.5.
- Localized disturbance to sagebrush, other shrubs, and herbaceous vegetation as a result of hand-cutting activities and blading of roads that will be used as fireline. These activities will damage or kill individual plants in the immediate area. Broadcast burning could impact sagebrush and bitterbrush at a larger scale than cutting or blading, resulting in reduced abundance for 10-30 years post-burn. Section 3.2.2.2.
- Short-term reduction (1-10 years) in soil cover, biotic soil crusts, current year biomass and potential seed production. Section 3.2.2.2.
- Long-term effects of the juniper treatment will include an overall decrease in surface erosion, and a potential increase in spring flows and groundwater storage. The increased light, available nutrients, and improved soil moisture will improve the overall condition of the herbaceous vegetation and shrubs compared to the untreated juniper areas. The shift from woody trees to increase herbaceous vegetation will increase soil cover in the long term, and thus reduce erosion. Spring flow and groundwater storage may increase as more water percolates rather than running off, and less water is used by juniper. Sections 3.1.2.2; 3.1.2.5; 3.2.2.2; 3.2.2.5; 3.3.2.2; 3.3.2.5.
- Effects on upland vegetation from juniper management are expected to be positive, with short- and long-term increases in plant diversity, understory health and productivity, and community integrity (meaning increased dominance by native grasses and forbs). Removal of juniper will result in decreased competition for light, water, and nutrients with understory plants, increasing herbaceous productivity and diversity. Section 3.2.2.2; 3.2.2.5.
- Aspen health is expected to be improved by juniper management, with a reduction in shading and competition from the juniper, and stimulation of sprouting from the prescribed fire. Section 3.2.2.2; 3.2.2.5.
- Burn patches will be dominated by herbaceous vegetation and shrubs that re-sprout or have fire-stimulated seeds. Ceanothus may dominate extensive patches post-burn in some areas, before being replaced by mountain mahogany. Section 3.2.2.2; 3.2.2.5.
- Mountain mahogany will benefit in the long term from juniper cover reduction (less shading and competition), and the return to a less severe fire regime. Section 3.2.2.2; 3.2.2.5.
- Potential increase of noxious and other non-native invasive plants as open condition conducive to weed dominance are created. A short-term flush of annuals such as prickly lettuce and cheatgrass are expected. Research indicates that annual weed

increases are likely to be short lived as native perennials regain dominance (Bates et al. 2006). Section 3.2.2.2; 3.2.2.5.

- Long-term effects of the juniper treatment will result in overall decreases in stream temperatures as riparian shrubs improve and decrease in sedimentation rates as riparian shrubs and herbaceous vegetation do a better job of holding streambanks; this will lead to meeting Idaho Department of Environmental Quality (IDEQ) water quality standards. Upland and riparian vegetation (herbaceous and shrubs) will increase, reducing water runoff and upland erosion. It is expected that Idaho water quality standards will be met for the Middle Fork Owyhee, Squaw Creek, West Fork of Red Canyon, and Pleasant Valley Creek, with subsequent removal from the 303d list. Section 3.3.2.2; 3.3.2.5.
- Juniper treatments will alter the fire regime by reintroducing fire and reducing, at least for the short term, live woody biomass. After the prescribed fire, future wildfires are likely to be less severe. Similarly, the juniper treatment will affect the Fire Regime Condition Class of the Juniper Mountain area by reducing the fire frequency and seral stage diversity departures, compared to reference conditions. Section 3.2.2.2; 3.2.2.5.
- Juniper-dominated areas will be converted to a community structure more similar to reference conditions. The treatments will result in fewer continuous areas of young juniper, but produce patchy small stands and retain most old growth individuals. Section 3.2.2.2; 3.2.2.5.
- Juniper treatment will result in a short-term (1-2 years) reduction in grasses and shrubs, but in the long-term (5+ years) vegetative health will improve and significant progress towards meeting Standard 4 will be made. Section 3.2.2.2; 3.2.2.5.

Issue 2: Sage-grouse habitat may have been reduced due to western juniper encroachment and livestock grazing.

Impacts to sage-grouse habitat relating to livestock grazing were addressed in the November 13, 2013 Final Grazing Decision. As identified in the EA (Section 3.4.1), the majority of the Trout Springs Allotment consists of either unsuitable or marginal sage-grouse habitat due to the extensive juniper expansion (Map 8 of the EA). Although the vegetative treatment will improve the limited key sage-grouse habitat that is currently conifer encroached, the treatment will be long-term in nature in respect to a resulting vegetative community that provides suitable sage-grouse habitat for nesting and other life-history processes. While there is a slight possibility for prescribed fire to carry into adjacent sagebrush areas, suitable sage-grouse habitat is not expected to be lost.

The hand girdling of junipers and use of prescribed fire could also increase available perching sites for raptor species, which have been found to prefer high perch sites free of obstructing vegetation (Marion and Ryder 1975)(Leyhe and Ritchison 2004). Available raptor perch sites appear to increase the predation risk of male sage-grouse near leks (Commons et al. 1998). However, the nearest active lek to the project area is approximately 1.3 miles to the west of the Trout Springs combined jackpot/broadcast burn treatment area. A lek with undetermined status is approximately 0.3 miles to the east of the Trout Springs broadcast burn perimeter. Chances of either treatment directly affecting these leks are low as the Mud Flat/Star Ranch Road provides a

strong contingency line to prevent direct effects to either lek. The nature of the jackpot burns will also limit the chances of fire spreading beyond the treatment perimeter. Both treatments could indirectly affect adjacent leks by creating standing dead trees for raptors within the area to use as perches. However, the removal of seral juniper and the reestablishment of sagebrush in the area greatly benefit sage-grouse populations in the long term (>10 years) by increasing the area of suitable habitat and outweigh the short-term risks of predation (Section 3.4.2.2).

Issue 3: Proposed prescribed western juniper burning will increase carbon emissions and may alter wildlife habitat.

As analyzed in the EA in Section 3.12.2.2, prescribed fire releases less carbon initially because less fuel is consumed in comparison to a wildfire. Prescribed fire also reduces the probability of high-intensity wildfire, which is expected to result in a slight indirect long-term reduction in carbon emissions. The EA identifies that while the above-ground biomass will be immediately reduced and any carbon acquisition would be reduced over the short term, the juniper root systems would not be consumed by fire and would therefore provide a long-term source of carbon storage (Rau 2008). In addition, the rapid recovery of deep-rooted grasses (and other herbaceous species) resulting from the reduction in juniper competition would increase soil carbon storage from the growth and die back of perennial grass root systems each year. While damaging alteration to wildlife habitat from increased carbon emissions is expected to be short-term in nature, long-term improvement to wildlife habitat will occur as a result of the treatment. Impacts to wildlife habitat are expected to be the following (as identified in Section 3.4.2.2 of the EA):

- Sensitive bird species and spotted frogs will benefit from the removal of juniper as riparian areas will not be degraded by the negative effects of juniper encroachment. Nesting and foraging habitat will be enhanced and overall productivity of riparian areas and waterways will improve over time as riparian vegetation is reestablished.
- In general, restoration of grassland, sagebrush, shrub steppe, riparian, and aspen habitats will increase the potential productivity of the area treated and could lead to increased prey for all predators, including raptors.
- Overall, the juniper treatments will have beneficial effects for big game and other herbivores by creating a greater mosaic of habitat types and greater habitat diversity.
- Juniper treatments are expected to benefit redband trout and other fish species by reducing the amount of water used by junipers and increasing flows in streams.

Additional Rationale

Hand cut/girdling is an effective method for controlling large juniper trees, especially in dense juniper stands. Girdling prevents the need for felling the larger trees, thereby reducing ground fuel loading in a treated area, and resulting in lower soil temperatures when the slash is burned. Girdling is less visually intrusive than felling, as girdled trees look as though they were naturally killed by fire. Girdling also creates cavity nesting trees for a variety of bird species. Through this treatment prescription, concentrations of old growth juniper can be avoided (during the treatment implementation) as old growth junipers are valuable for wildlife habitat, plant community structure diversity, and scenic values within the area. Due to the nature of the hand-

cut, girdling treatments, and jackpot burning, the SOP regarding the removal of seral juniper adjacent to old growth being cut and removed where practicable was not carried forward in this decision. Due to the jackpot burning method, fire will not be carried into areas with old-growth juniper. As stated previously, old growth trees are identified by rounded, flat, open, or irregularly shaped canopies as opposed to seral trees which are easily distinguished by tight, conical (Christmas tree) shape. Additional indicators of old growth trees include deeply furrowed, fibrous, and reddish bark; presence of lichens; and large branches near the base of the trunk (Miller et al. 2005).

Late stage juniper expansion results in a loss of the herbaceous component (Miller et al. 2000) of the upland shrub-steppe ecosystem. The objectives of the juniper treatments are to restore and maintain the native shrub steppe, aspen, and riparian communities of this area, and to restore the natural role of fire on the landscape for the long-term maintenance of these communities. Juniper treatments to arrest expansion will also be expected to result in an increase of the herbaceous component which will benefit both wildlife and livestock. Although forage is expected to increase as a result of juniper treatments, alternatives were not developed or analyzed with the expectation of increasing livestock use.

Management objectives identified will allow for improved watershed functionality, allow for a heterogeneous mosaic of vegetation age classes across the landscape and increase biodiversity. Unburned islands will also aid in the heterogeneous mosaic while also protecting and stabilizing soil surfaces from run-off events across the project area. This decision also identified specific management objectives for the hand cut/girdle and jackpot burn treatment that were not specifically identified as such in the EA; however, were included as "objectives" for the treatment and analyzed within the EA. Carrying these forward as "management objectives" will allow for measurable and achievable outcomes for the Trout Springs fuels treatments in its entirety.

Through a review of literature and survey of information provided by WWP, I conclude that these documents identify the conditions that BLM is seeking to obtain with implementation of this treatment. The various surveys conclude that juniper was native, scattered, and not widespread, with "good grass" or herbaceous components. The information identifies that the area was not a forest of juniper; this is consistent with Ecological Site Descriptions (ESDs) for the area and illustrated in Map 7 of the EA.

Treatments identified are necessary in order to address the expansion of juniper and obtain a community structure that is more similar to reference conditions, with retention of old growth juniper individuals and small stands. The treatments, management objectives and SOPs identified through this decision will allow for attainment of Idaho S&Gs in the short and long term across the landscape. SOPs identified are required in order to ensure attainment of the treatment and management objectives while ensuring the protection of fire crews, the general public, and to mitigate any negative impacts to vegetative, wildlife, or cultural resources.

The Proposed Action identified that "Pretreatment fire crews would take appropriate measures based on topography, vegetation, and fuel loads to ensure that broadcast burning does not remove or damage raptor nest trees and/or nest tree stands (i.e. northern goshawk)". This SOP

was deleted from the decision because other SOPs and required actions included in the EA provide adequate protective measures. The actions and protective measures include raptor nest surveys, notification of a biologist if an active nest is discovered, and buffer zones and timing restrictions for active nests. These management requirements will ensure that active raptor nests are protected. Protection of raptor nests outside of the breeding season is not required with the exception of eagles. The protection of eagle nests is afforded under the Bald and Golden Eagle Protection Act (1962) as amended.

-AUTHORITY-

Authority under which this decision is being issued is found in Title 43 of the Code of Federal Regulations (CFR) Subpart 4.410 – Appeals to the Board of Land Appeals.

-RIGHT of APPEAL-

Any applicant, permittee, lessee or other interested publics may appeal a final decision under Sec. 43 CFR 4.410, 4.411, 4.412, and 4.413 in person or in writing to Loretta V. Chandler, Owyhee Field Office Manager, at 20 First Avenue West, Marsing, Idaho 83639 within 30 days after receipt of such decision. The notice of appeal, if filed must include a statement of reasons for the appeal, a statement of standing if required by 43 CFR 4.412(b), and any arguments the appellant wishes to make. The person/party must also serve a copy of the appeal on the Office of the Solicitor, Boise Field Solicitors Office, University Plaza, 960 Broadway Ave., Suite 400, Boise Idaho, 83706 and person(s) named [43 CFR 4.421(h)] in the CC: section of this decision. The Interior Board of Land Appeals must decide an appeal of this decision within 60 days after all pleadings have been filed, and within 180 days after the appeal was filed as contained in 43 CFR 4.416.

If you have any questions, please contact me at 208-896-5912.

Sincerely,

/s/ Loretta V. Chandler

Loretta V. Chandler
Field Manager
Owyhee Field Office

Enclosure: Map 1

cc: Trout Springs Interested Public

Literature Cited:

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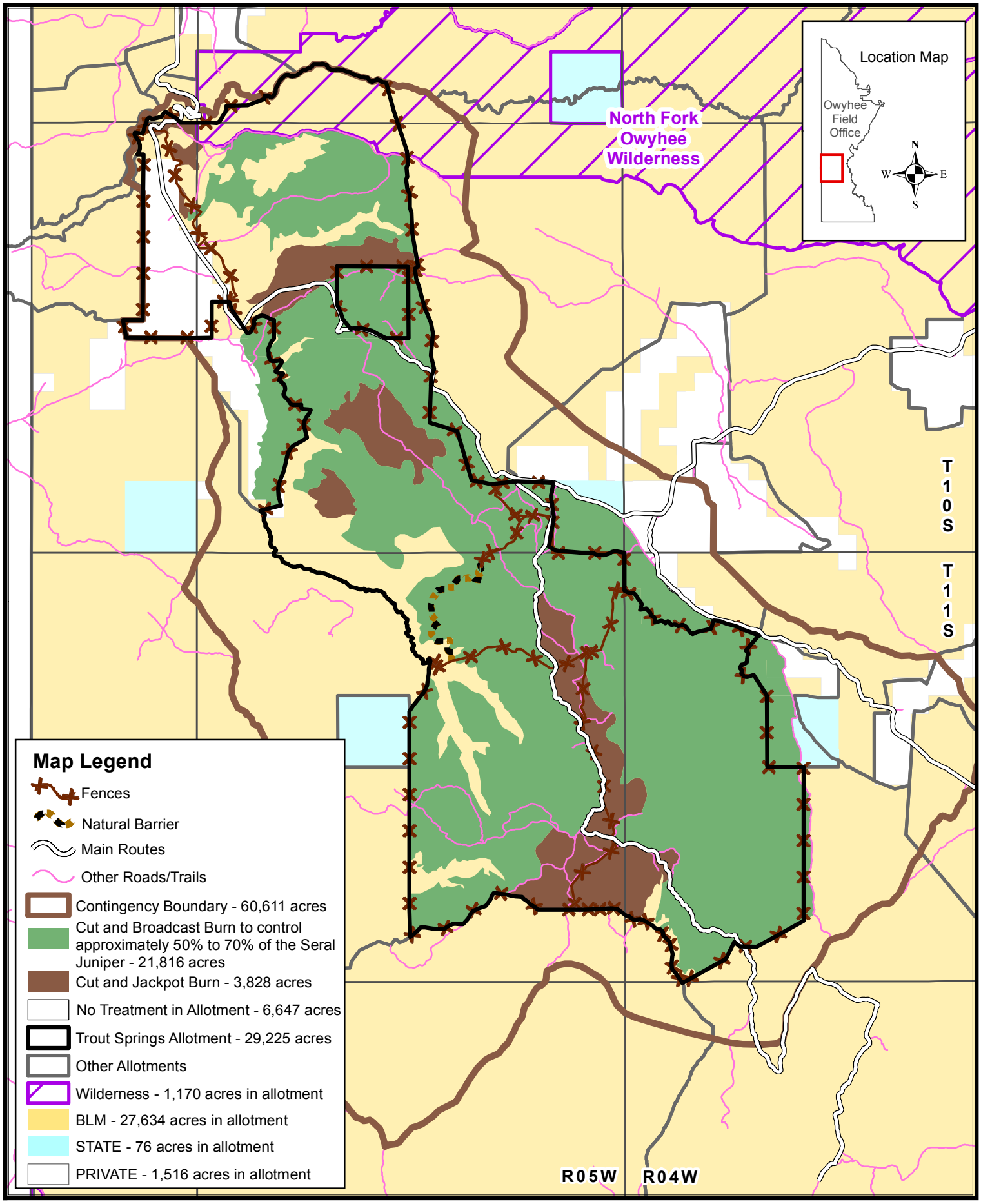
Map 1 - Trout Springs Juniper Treatments



Map Legend

- Fences
- Natural Barrier
- Main Routes
- Other Roads/Trails
- Contingency Boundary - 60,611 acres
- Cut and Broadcast Burn to control approximately 50% to 70% of the Seral Juniper - 21,816 acres
- Cut and Jackpot Burn - 3,828 acres
- No Treatment in Allotment - 6,647 acres
- Trout Springs Allotment - 29,225 acres
- Other Allotments
- Wilderness - 1,170 acres in allotment
- BLM - 27,634 acres in allotment
- STATE - 76 acres in allotment
- PRIVATE - 1,516 acres in allotment

0 1 2 Miles

The sources of the data are from Idaho-BLM Corporate Data, and the USGS.

Map Date: 4/29/2014