USDI, Bureau of Land Management
Three Rivers Resource Area, Burns District

DECISION RECORD

Buzzard Complex Fire
Emergency Stabilization and Burned Area Rehabilitation Plan
Environmental Assessment
DOI-BLM-OR-B050-2014-0032-EA

BACKGROUND

The Burns District Bureau of Land Management (BLM), Three Rivers Resource Area, is proposing to implement emergency stabilization and rehabilitation (ESR), vegetative restoration, and weed treatments across the Burns, Oregon District perimeter of the Riley Field (H8G2) and Beaver Creek (H8A6) Fires in Stinkingwater Mountains in accordance with the Riley Field and Beaver Creek Emergency Stabilization and Burned Area Rehabilitation Plans. This Environmental Analysis (EA) of the Riley Field and Beaver Creek Fires ESR Plans analyzes potential impacts of proposed stabilization and rehabilitation of the burned areas on the human environment.

The Buzzard Complex was comprised of six lightning caused fires (Bartlett, Lamb Ranch, Buzzard, Saddle Draw, Twin Reservoir and Beaver Creek) that started Sunday, July 13, 2014, and burned across both the Burns and Vale Districts. Total acreage burned in the Buzzard Complex was approximately 395,747 acres. A total of 118,514 acres (all ownerships) were burned on the Burns District with the remaining 277,233 acres (all ownerships) having burned on the Vale District. The Burns District is responsible for three individual fires within the Buzzard Complex which total 70,163 BLM acres: the Bartlett Fire, which encompassed 3,843 BLM acres; the Beaver Creek Fire, which encompassed 8,291 BLM Acres; and the Riley Field Fire which encompassed 58,029 BLM Acres. On the Burns District, the fire burned through portions of 27 allotments, including 8 Fenced Federal Ranges (FFR) and the Stinkingwater Herd Management Area (HMA). Additionally, the entire fire burned through either Preliminary Priority or General Sage-grouse Habitat. Emergency stabilization and rehabilitation treatments were developed to maintain or improve the condition of sage-grouse habitat.

COMPLIANCE

The Buzzard Complex Emergency Stabilization and Burned Area Rehabilitation Plan EA (DOI-BLM-OR-B050-2014-0032-EA) is tiered to the Three Rivers Proposed Resource Management Plan (PRMP)/Final Environmental Impact Statement (FEIS) and the 2010 Vegetation Treatments Using Herbicides on BLM Lands in Oregon FEIS. There will be no broad societal or regional impacts not previously considered in these planning documents and relevant information contained therein is incorporated by reference. The Proposed Action has been designed to conform to the following documents, which direct and provide the framework for management of BLM lands within Burns District:

- Taylor Grazing Act (43 U.S.C. 315), 1934
- The NEPA (42 U.S.C. 4320-4347), 1970
- Wild Free-Roaming Horses and Burros Act (16 U.S.C. 1331-1340), 1971
- Handbook H-4700-1 Wild Horses and Burros Management Handbook, 2010
- Federal Land Policy and Management Act (43 U.S.C. 1701), 1976
- Public Rangelands Improvement Act (43 U.S.C. 1901), 1978
- August 12, 1997, Standards for Rangeland Health and Guidelines for Livestock Management for Public Lands Administered by the BLM in the States of Oregon and Washington
- 2007 Vegetation Treatments Using Herbicides on BLM lands in 17 Western States Record of Decision (ROD) (National Veg. Final Environmental Impact Statement (FEIS))
- 2010 Vegetation Treatments Using Herbicides on BLM Lands in Oregon ROD (Oregon Veg. FEIS)
- Greater Sage-grouse and Sagebrush-steppe Ecosystems Management Guidelines (BLM-2000)
- BLM National Sage-grouse Habitat Conservation Strategy, 2004
- Clean Water Act (33 U.S.C. 1251 - 1376; Chapter 758; P.L. 845, June 30, 1948; 62 Stat. 1155)
- Clean Air Act, 42 U.S.C. 7470, et seq., as amended
- National Historic Preservation Act (16 U.S.C. 470)
- State, local, and Tribal laws, regulations, and land use plans
- Executive Order 12372, Intergovernmental Review
- Executive Order 13112, Invasive Species
- Executive Order 11990, Protection of Wetlands
- Executive Order 11988, Floodplain Management
- Archaeological Resources Protection Act (ARPA)
- Native American Graves Protection and Repatriation Act (NAGPRA)
- American Indian Religious Freedom Act (AIRFA)
- BLM Manual Section 8120: "Tribal Consultation under Cultural Resource Authorities"
- Instruction Memorandum WO-2012-043, Greater Sage-Grouse Interim Management Policies and Procedures issued December 27, 2011
- Instruction Memorandum WO IM-2014-114, Sage-Grouse Habitat and Wildland Fire Management issued July 18, 2014
- Wilderness Manual 6330
- National Technical Team Report, 2012
- USFW Listing
- 1998 Burns District Noxious Weed Management Program EA (OR-020-98-05)

DECISION

Having considered the Proposed Action, No Action Alternative and Alternatives Considered but not Analyzed in Detail and associated impacts and based on analysis in DOI-BLM-OR-B050-2014-0032-EA, it is my decision, effective immediately, to apply the Proposed Action implementing the ESR plan and providing for the application of specific herbicides on noxious and invasive weeds located within the fire perimeter and in areas directly adjacent within Burns District. I find that the proposed action would not constitute a significant action and no Environmental Impact Statement is required.

The Proposed Action will include the following elements:

1. Weed Monitoring:

On the Burns District, as part of the District's standard operating procedures, any areas burned by wildfire are monitored for at least three years post-fire. All BLM-managed lands within and adjacent to the burn perimeter of Riley Field and Beaver Creek fires will be surveyed for noxious and invasive weeds. Any weeds found will be treated using the most appropriate methods.

2. Herbicide Application:

Where herbicide application is determined to be the most appropriate treatment for noxious weeds, use of herbicides will be in conformance with the labeled instructions. Only treatments allowable on Oregon BLM lands in conformance with Burns BLM authorized procedures will be used. Herbicides will be applied aerially or using ground-based sprayers. Herbicides, in addition to our currently available suite of products, include:

Herbicide & Rate	Season/Method of Application	Examples of Weed Species
Chlorsulphuron: Telar XP (1 oz./acre; 0.047 lbs./acre of active ingredient Chlorsulphuron) + *2,4-D* (1 qt./acre; 0.95 lbs./acre of active ingredient 2,4D)	Typical application window is during rosette to early flower stage. Sometimes apply in fall on fall rosettes. Application method would be low-boom or spot spray.	Mediterranean Sage Biennial thistles
Chlorsulphuron: Telar XP (1 oz./acre; 0.047 lbs./acre of active ingredient Chlorsulphuron) + *2,4-D* (1 qt./acre; 0.95 lbs./acre of active ingredient 2,4D)	Typical application window is full flower stage. Application method would be low-boom or spot spray.	White top
Chlorsulphuron: Telar XP (1 oz./acre; 0.047 lbs./acre of active ingredient Chlorsulphuron) + *2,4-D* (1 qt./acre; 0.95 lbs./acre of active ingredient 2,4D)	Typical application window is full flower stage. Application method would be low-boom or spot spray.	Perennial pepperweed
Chlorsulphuron: Telar XP (1 oz./acre; 0.047 lbs./acre of active ingredient Chlorsulphuron) + *2,4-D* (1 qt./acre; 0.95 lbs./acre of active ingredient 2,4D)	Typical application window is during rosette to early flower stage. Sometimes apply in fall on fall rosettes. Application method would be low-boom or spot spray.	Canada thistle

Herbicide & Rate	Season/Method of Application	Examples of Weed Species
Clopyralid: Transline (1 pt./acre; 0.37 lbs./acre of active ingredient Clopyralid); may add *2,4-D* (1 qt./acre; 0.95 lbs./acre of active ingredient 2,4D); may add *Chlorsulphuron:* Telar	Typical application window for this type of treatment would be fall (late season) when desirable vegetation is least susceptible to damage. Application method would be low-boom or spot spray.	Canada Thistle Russian Knapweed
Imazapic: Plateau (6 oz/acre; .09375 lbs/acre of active ingredient) Could be used at 2-12 oz/acre, depending on the location and associated species at the treatment site.	Typical application window is as a pre-emergent in late summer/early fall.	Medusahead rye, cheatgrass, ventenata, and other annual invasive species
Sulfometuron methyl: Oust (0.5 oz/acre; 0.38 lbs/acre of active ingredient)	Typical application window is as a pre-emergent in late summer/early fall. This product is labeled for use on Right of Ways (ROWs) and could be used to enhance the efficacy and longevity of Plateau applications in those areas.	Medusahead rye, cheatgrass, ventenata, and other annual invasive species
Bromacil + Diuron (Weed Blast) at 8 lbs active ingredient/acre (4 lbs ai bromacil and 4 lbs ai diuron).	This product is applied as a dry granular product using a spreader or shaker type of applicator. It would be applied as a bare-ground treatment. Treatments would occur as annual "spot applications" in an approximate 15-foot radius around each power pole. That calculates to .02 ac/pole of treated area.	All vegetation
Tebuthiuron + Diuron (Spra-Kil SK26) at 200 lbs of product/ac (4 lbs ai tebuthiuron and 12 lbs ai diuron)	This product is applied as a dry granular product using a spreader or shaker type of applicator. It would be applied as a bare-ground treatment. Treatments would occur as annual "spot applications" in an approximate 15-foot radius around each power pole. That calculates to .02 ac/pole of treated area	All vegetation

Application method will be by vehicle based boom or aerial spraying methods. Maps 6RF, 8BC and 8RF (in the EA) show the treatment areas proposed for herbicide application.

Approximately 75,000 acres are contained within this treatment area (note-the private lands within this boundary will not be treated by BLM and the map and acreage do not depict riparian/wetland buffers described in Appendix B of the EA due to the scale of the maps. The treatment area boundary shown on Maps 6RF, 8BC and 8RF was selected based on existing weed infestations within the fire boundary and roads and ways which travel through known weed infestations, along with wildlife and livestock use patterns. All of these routes act as vectors for transporting noxious weeds from existing weed sites to the burned area. It is important to understand this proposal is not to treat all acres within this boundary, but only to treat areas of existing or new weed infestations.

3. Aerial Seeding:

Approximately 29,729 acres of the Riley Field and Beaver Creek Fires will be aerially seeded. Aerial seeding will occur between winter 2014 and winter 2016 using native/desirable non-native and desirable non-native seed mixes and mountain big sagebrush.

4. Drill Seeding:

Drill seeding 8,678 acres of the Riley Field and Beaver Creek Fires will be done utilizing rangeland drills in early winter between 2014 and 2016. A combination of native and desirable non-native species will be utilized in the seed mixes.

5. Wyoming big sagebrush planting:

Wyoming big sagebrush seedling (plugs) planting will occur on approximately 4,000 acres where Wyoming big sagebrush mortality occurred due to the fire. Locations for the plug plantings will maximize the chances of success, and are based on soil survey data, vegetative communities present prior to wildfire, and ecological site descriptions.

6. Bitterbrush Seeding:

Approximately 2,500 acres of bitterbrush will be hand seeded where bitterbrush occurred pre-fire. This will be accomplished at a ten-foot spacing using a specialized hollow tube to simulate caching by burrowing animals.

7. Erosion Control Structures:

Up to 200 erosion control structures (hill slope or in channel treatments) will be placed within or upslope of appropriate drainages. Structures will be constructed of weed-free straw, cut juniper, or rock placed on the surface (no ground disturbance) and anchored with metal posts to resist movement as necessary. Height, width, and position will depend on channel morphology and potential for water movement. Contour wattles and straw bale check dams will be constructed according to Natural Resource Conservation Service (NRCS) guidelines (USDA 2004 and USDA 2012). These structures will be located in critical areas of high risk where the threat of sedimentation will cause problems to downstream values. Straw bale check dams will only be placed in small drainages (ephemeral or intermittent) with a channel gradient of less than 30 percent; they will not be placed in any incised drainages. Contour wattles will be placed on slopes of 50 percent or less. Specific types and locations of erosion control structures will be determined by a BLM Hydrologist familiar with erosion in arid areas.

8. Road Maintenance/Water Diversion:

Water diversions will stabilize approximately 124 miles of roads within and adjacent to the burned areas damaged by frequent passage of heavily laden firefighting vehicles which are threatened to varying degrees by erosion. Roads and ways along the eastern and western faces of the Stinkingwater Mountains are characterized by steep terrain (32 percent of the area is between 31 and 60 percent slope). Unless otherwise specified, road maintenance will consist of spot maintenance in damaged areas. Roads will be returned to conditions similar to their conditions prior to the fire. This may include grading, grid rolling, and the placement of spot rock. Where necessary, roadside ditches will be spot cleaned in order to remove sediment and ash that accumulates within the ditches. Spot cleaning of ditches will be necessary to ensure runoff is able to continue flowing through ditches.

9. Fence Maintenance and Construction:

Approximately 249 miles of 4-wire fence will be evaluated and reconstructed as necessary. Of these miles of fence to be reconstructed, approximately half fall on the boundary of or cross private property or exist as part of an FFR making them important in managing boundaries during reseeding and stabilization efforts. These fences are included since they were originally constructed by the BLM and have valid Rangeland Improvement Project System (RIPS) numbers, and are needed by the BLM to properly control livestock within the respective allotments. Private/BLM boundary fences will be the responsibility of the private landowner, not BLM and such will be clarified with each individual permittee/landowner. Fence reconstruction will include the construction of replacement H-braces and rock cribs as needed. In all fence reconstruction, metal materials will be used to the extent possible.

10. Range Improvement Reconstruction:

Nineteen spring developments were damaged to some degree during the wildfire. These developments will be reconstructed restoring the functionality of these water sources for wildlife as well as livestock. Repairs will range from repairing and/or completely rebuilding fence to replacing plastic piping that melted during the fire and replacing headboxes. The use of a backhoe will be required for replacing headboxes or pipe. Fifteen troughs within the fire perimeter will be surveyed for fire damage and replaced as necessary in addition to 2.6 miles of pipeline. Additionally, 51 reservoirs, two dams and two waterholes will be surveyed and cleaned as needed to prevent silting by soil and ash from the fire. Because of the remoteness of many springs, not all have been surveyed and the extent of the damage on all springs has yet to be evaluated.

11. Stabilization of Known Archaeological Sites:

The 30 known cultural resources within the boundaries of the Buzzard Complex burned areas will be assessed to determine whether immediate stabilization measures are needed. If necessary, low impact seeding will be implemented on these sites to minimize erosion of archaeological deposits and decrease visibility as protection against illegal artifact collection.

12. Wild Horse Relocation:

Wild horses will not be immediately relocated from the burned portion of the Stinkingwater HMA (Map 10RF). Relocation will occur if monitoring indicates wild horses caused "Light" (21-40 percent) utilization levels across 5 percent of the burned area in the HMA. Once the pasture fences have been surveyed and repaired, it may be necessary for the wild horses within the rehabilitation area to be relocated from the burned portion to the unburned portion of the HMA, using the helicopter drive method, to allow vegetation recovery in the burned areas. The relocation of wild horses from this area may require multiple flights to move all wild horses, and then to relocate any wild horses that manage to get back into the area. Relocation of wild horses will continue as long as monitoring indicates the need. Wild horses found outside the HMA boundary will be relocated to the HMA.

13. The US Department of Agriculture (USDA), Agricultural Research Service (ARS):

ARS proposes to evaluate sagebrush restoration success of four different methods, as well as natural recovery at seven different elevations from 4,000 feet to over 6,000 feet, using a randomized block design. Treatments will include: natural recovery (control), broadcast seeding of sagebrush, broadcast seeding of sagebrush followed by roller-packing, planting sagebrush seed pellets, and planting sagebrush seedlings. All sagebrush used in the study will be Wyoming or mountain big sagebrush based on the pre-fire vegetative community.

14. Effectiveness Monitoring:

Vegetation monitoring will be conducted for three years after treatments are applied. Sagebrush and other shrub cover will be measured using the line-intercept method on three, 66 foot transects. The transects will be placed at 10, 15, and 25 foot points along the 33-foot side of the treatment plot. Sagebrush and other shrub density will be measured by counting all sagebrush rooted inside the 33 by 66 foot plot. Average sagebrush height will be determined by measuring the height of 20 randomly selected sagebrush plants per plot. Sagebrush biomass production per plot will be estimated using height and two perpendicular diameter measurements of the sagebrush canopy (Davies et al. 2007) from 20 randomly selected sagebrush plants. Site characteristics will be measured at each block. Elevation, longitude, and latitude will be determined using topographical maps. Aspect will be determined using a compass. Slope will be measured with a clinometer. Soil depth will be determined by digging a soil pit to a restrictive layer. Soil texture will be determined using the hydrometer method for the 0-8 inch depth and 8-16 inch depth. Precipitation will be determined from PRISM precipitation maps. Average, minimum, and maximum temperatures, Ecological Site, and frost free days will be determined for each block from NRCS Soil Surveys. Resin membrane probes will be used to estimate plant available soil nutrients. This monitoring will show if the seeding was successful, the status of native plants, medusahead, and noxious weeds, and whether the soil surface is being protected.

Design Elements of the Proposed Action

Project Design Elements (PDEs) were developed to aid in meeting project goals and objectives. These features are nonexclusive and are subject to change based on site-specific terrain characteristics (topography and vegetation). Changes, additions, or deletions will be made through coordination with appropriate BLM specialists and approved by the Field Manager.

1. The Industrial Fire Precaution Levels (IFPLs) will be followed during construction, where appropriate.

2. Cultural Clearances: Pursuant to Section 106 of the National Historic Preservation Act, the lead Federal agency must take historic properties into account prior to implementing Federal undertakings. Cultural resource inventories will be conducted on areas proposed for ground disturbing stabilization and rehabilitation treatments (fence construction, drill seeding, etc.). These inventories will be conducted prior to implementation of the proposed ground disturbing stabilization and rehabilitation treatments in order to identify and avoid any cultural resources needing protective measures.

3. Inventories will be in accordance with the State Protocol Agreement between the Oregon BLM and the Oregon State Historic Preservation Office (SHPO). All cultural resources will be recorded on agency approved site forms and plotted on maps. Resources, except those previously determined Not Eligible by the agency and SHPO will be flagged for avoidance during stabilization and rehabilitation activities. Flagging will be removed as soon as possible after stabilization and rehabilitation treatments to minimize the potential for looting and vandalism. New fence construction will avoid cultural sites.

4. The risk of noxious weed introduction will be minimized by ensuring all equipment (including all machinery, 4-wheelers, and pickup trucks) is cleaned prior to entry to the sites, minimizing disturbance activities, and completing follow-up monitoring, to ensure no new noxious weed establishment occurs. Should noxious weeds be found, appropriate control treatments will be performed in conformance with the 1998 Burns District Noxious Weed Program Management EA/DR OR-020-98-05 or subsequent decision. Herbicide use will conform to federally approved manufacturers' herbicide labels as well as the streamside, wetland, and riparian habitat herbicide restrictions. Herbicide will not be used on any special status plant populations. Appropriate mitigation measures contained in Table 2 of the Final Vegetation Management EIS and Environmental Report (2007), or its successor, will be utilized as a part of the project design.

5. The Burns Paiute Tribal Council will be notified in advance of the location of any herbicide spraying.

6. All proposed wire fences constructed within 1.25 mile of a lek or known seasonal use area (i.e. spring exclosures), will include plastic reflective clips on the wire to enhance visibility and reduce potential mortality from sage-grouse hitting the fence.

7. Boundary fences will have been inspected, repaired, or replaced and be in good condition prior to turnout into pastures scheduled for use.

8. Fences will be constructed to BLM specifications for a 4-strand barbed wire fence, including 22-foot line post spacing. Wire spacing will be 16 inches, 22 inches, 30 inches, and 42 inches up from the ground, with a smooth bottom wire. Anti-collision flashers will be installed in appropriate locations.

9. All seed will meet BLM standards for germination and purity.

10. Construction will occur in early spring or in late summer or early fall to avoid adverse effects to nesting birds.

11. Prior to final inspection, all construction trash and excess debris will be removed from the public lands and disposed of at a site approved by the BLM Contracting Officer.

COMMENTS RECEIVED

On July 29, 2014, the Burns District held a meeting with Cooperating Agencies, including US Fish and Wildlife Service (USFWS), Oregon Department of Fish and Wildlife (ODFW), Harney County, Oregon Department of Agriculture and the Harney County Soil and Water Conservation District (SWCD) to discuss the ESR treatments proposed in the Riley Field and Beavery Creek ES&R Plans. The timing of medusahead treatments, seeding applications and seed mixes were the main topics of discussion. Overall, the proposed treatments/actions were well received by all cooperating agencies.

On July 31, 2014, the Burns District met with affected Permittees in Crane, Oregon to discuss the potential ESR treatments for the Burns portion of the Buzzard Complex. Discussions focused on fence maintenance (who was responsible), seed mixes and annual grass treatments for the fall of 2014. Other agencies were also on hand to discuss post-fire projects on private lands that could not be funding by Federal ESR dollars. Overall, the ESR plan was well received with the BLM being urged to move as quickly as possible in order to take advantage of current on the ground conditions for invasive annual grass treatments.

Permittees continue to be met with on an individual and ongoing basis.

On September 4, 2014, the BLM attended the annual Oregon State Weed Board meeting in Burns and led a field tour of the Riley Field portion of the Buzzard Complex. The timing of invasive annual grass treatments was discussed as well as the effectiveness of the treatment in regards to the chemistry of the herbicides. The overall discussion focused on the landscape scale of the issue of invasive annual grasses and the need for landscape scale treatments and options for minimizing fire in these compromised areas.

On September 9, 2014, the BLM hosted a field trip to the Burns District portion of Buzzard Complex Fire. The field trip included representatives from the Oregon Natural Desert Association (ONDA), ODFW, USDA Agricultural Research Service (ARS), USFWS (Ecological Services), Oregon State University Extension, Harney County, Burns Paiute Tribe and Oregon Cattlemen's Association. Participants were provided with a general idea of what rehabilitation efforts the BLM would plan for, including seeding areas, methods, and possible species. Concerns were voiced regarding proposed activities in WSA's and Lands with Wilderness Characteristics and the potential use of crested wheatgrass and forage kochia in the seed mixes, especially in sage grouse habitat. Also discussed was the timing of herbicide use for the most effective control of invasive annual grasses and prioritization of seeding and treatment areas to rehabilitate wildlife habitat. Use of herbicide in traditional Native American use sites was brought up with the determination that most of the sites are in the upper elevations and not where the aerial herbicide treatments will be utilized. Questions regarding long term rehabilitation and restoration projects were discussed, but participants were informed that they were outside the scope of the short term ESR plan and that the plan was only the first step in managing for the longer term. Contact information was provided if any members of the interested public had specific questions or comments.

RATIONALE

This decision addresses the purpose and need for the action because it provides the greatest likelihood of successfully establishing a ground cover of perennial vegetation to: compete with invasive annual grasses for available site resources, reducing the likelihood of burned areas converting to invasive annual grass dominance; stabilize soils after the first growing season, reducing the potential for accelerated soil erosion associated with invasive annual communities; reduce the likelihood of these areas experiencing a shortened fire return interval associated with invasive annual grass dominance; coexist with and promote reestablishment of native vegetation; result in less time needed for big sagebrush to reach sufficient cover percentages to begin to provide usable habitat for sage grouse as both hiding/nesting cover and as a critical food source during the winter season; and reduce the likelihood of new weed establishment or expansion of existing weed infestations. In addition, the decision was based on consultation with affected grazing permittees, other agencies (ODFW, USFWS, etc.), public comments (gathered at field trip and through personal communications), and conformance with applicable laws and regulations.

1. Aerial Seeding

The areas proposed for aerial seeding treatments (30,000 acres) are unsuitable for drill seeding due to rockiness, slope, and the potential presence of cultural sites. Using the aerial seeding method in these areas will help stabilize the soils on slopes by establishing protective ground cover of native and desirable non-native perennial vegetation, protecting the soils from wind and water erosion and stabilizing hillsides. Seeding the rocky upper elevations allows for the seed bank to move downhill naturally providing a
more natural appearance and continuity of natural processes. Aerial seeding mountain big sagebrush will accelerate the reestablishment of a critical component of sage-grouse habitat.

2. Drill Seeding

Following fires, resource availability increases on the site, including an increase in available nitrogen, which annual species are able to utilize quicker than perennial species (Davies et al. 2007, Stubbs and Pyke 2005, Blank et al. 1994, 1996, Monaco et al. 2003, Pellant 1996). This is especially true in the early spring since invasive annual grasses begin actively growing while perennial species are still dormant or just beginning to initialize growth (Pellant 1996). Because of the high concentration of invasive annual grasses in the eastern portion of the fire, drill seeding (8,700 acres) will have the highest rate of success in off-setting the potential of converting the area to an annual grassland (Kirk Davies and Chad Boyd, USDA-ARS Pers. Comm. 2012). Two seed mixes will be used, one containing crested wheatgrass mixed with native species, and the second containing desirable non-natives to compete with the moderate to heavy invasive annual grass infestation.

By drill seeding, appropriate seed mixtures will be planted within parameters optimal for their growing success, increasing the establishment rate and consequently improving the chances of seeded vegetation to outcompete cheatgrass within a timeframe that will narrow the window of recovery and reduce soil and biological soil crust loss. Many burned sites, particularly those in the Great Basin and Intermountain regions, require revegetation to stop invasive and noxious plant

invasion, and most techniques require some soil surface disturbance. This may not appear consistent with recovery of biological crusts, however, failure to treat sites can result in irreversible dominance by invasive annual grass species, which prevents the return of well-developed biological soil crusts (BLM Tech Reference 1730-2) and native or desirable vegetation. Drill depth and seed tubes will be adjusted and/or pulled to create an inconsistent pattern thus reducing impacts to visual resources and a chain will be dragged behind the drill machine to knock down the berms of the furrows. Over time, natural weathering processes make the disturbed areas unnoticeable to the casual observer.

3. Wyoming Big Sagebrush Plugs

Big sagebrush is a key component to the survival of sage-grouse and other wildlife species and is important habitat for several species of migratory birds, including several Birds of Conservation Concern. Post-burn recovery periods for big sagebrush can take years because it must reestablish from seed. In the shrub steppe environment, stands of Wyoming big sagebrush (lower elevations of the Riley Field and Beaver Creek Fire) may not recover after 50 to 75 years. Fire kills sagebrush plants and sagebrush seeds in the soil, and suppresses recovery because Basin, Mountain, and Wyoming big sagebrush are not root-sprouting shrubs (Tisdale & Hironaka 1981). Post burn recovery periods for these three big sagebrush taxa can be long, especially following large wildfires, because they must reestablish from seed. For example, Baker (2006, 2011) approximated post fire recovery for Mountain big sagebrush from 35–100 or more years and Wyoming big sagebrush from 50–120 years based on a combination of cover and density values from various studies. Planting plugs is expected to accelerate the recovery effort because it typically has a higher survival rate than seeded sagebrush and decreases the period required to achieve reproductive maturity. Additionally, less time is needed for Wyoming big sagebrush to reach sufficient cover percentages to begin providing usable habitat for sage-grouse and pygmy rabbit as both hiding/nesting cover and as a critical food source during the winter season. Seedling planting will occur in areas where Wyoming big sagebrush occurred prior to the fire and has the greatest chance of survival and is based on ecological site descriptions, soil types, and on-the-ground knowledge. They will provide “islands” for future seed sources, further improving critical habitat.

4. Bitterbrush Hand Seeding

The Riley Field and Beaver Creek fire burned through stands of antelope bitterbrush. Hand seeding bitterbrush will provide a greater establishment because rate and method (broadcast, cache, etc.) can be manipulated based on terrain and burn severity. By hand seeding, and thus augmenting the return of bitterbrush communities, there will be a reduction in the length of time habitat is unavailable to affected species. Further, a perpetual benefit of “bitterbrush islands” is an expansion of the plant communities and provides a future seed source for that and other sites.

Bitterbrush is palatable to livestock and wildlife and is important winter range forage for mule deer where availability of winter range is a limiting factor. The affected area provided both winter and summer range for many wildlife species. Mule deer are widespread throughout the fire and surrounding area; 100% of the fire burned through mule deer and pronghorn antelope habitat.

5. Erosion Control Structures

Native seed persists in the soil and preventing its removal will increase the establishment rate of native species and prevent the expansion of noxious and invasive weed species.
Soil stabilization measures such as check dams; cut juniper and silt basins will prevent valuable seed laden top soil from leaving the site and prevent damage to necessary travel routes reducing driving hazards and risks to human safety. These structures will prevent excessive amounts of top soil and ash from washing into the creeks within the fire perimeter.

The structures will be removed once vegetation is adequately holding back the fine materials that may clog coarse materials forming the grade dips.

6. Road Maintenance

Roads on and around the Stinkingwater Mountains are used by local landowners, sportsmen, hikers, campers, and for administrative use. Damage caused by suppression efforts of the Riley Field and Beaver Creek Fires caused deterioration of road surfaces leading to, and throughout, the lower western portion of Stinkingwater Mountains. The heavy use of roads during suppression efforts and during post-fire rehabilitation efforts throughout the entire burned area caused pulverization of the roadbed to the point of decay to talc like state with pockets of dust exceeding 12 inches thereby creating a safety hazard for passenger vehicles as well as four-wheel drive vehicles. Additionally, most emergency stabilization work occurs when damage to roads is likely.

Because of the depth, large rocks can be hidden below the dust surface and may cause extensive damage to vehicle undercarriages. Even full-sized pickup trucks with four wheel drive are prone to being pulled out of route by dust channels similarly to driving through deep water, slush, or snow. During periods of no wind, disturbed dust can remain suspended in air for several minutes over reaches exceeding a mile reducing visibility to near zero for following vehicles.

Sections of the roadbed have been compromised to the point where low amounts of moisture may accumulate into large, deep puddles. This creates a driving hazard and is expected to result in erosion both alongside and across the roadbed. Large amounts of runoff and associated soil movement out of drainages and across roadways creates a hazard to human safety.
Road maintenance within and directly adjacent to the fire perimeter will occur within the boundary of the existing roadbed and will not impact soils or soil crusts because all work will occur within the existing roadbed. Maintenance and stabilization activities will reduce creation of new or widened roads in efforts to get around obstacles created by road deterioration and consequently reduce risks to public health and safety while ensuring access by the public. Spot cleaning of ditches will ensure runoff is able to continue flowing through ditches and culverts, reducing the probability of water pooling and damaging roads.

7. Fence Maintenance and Construction

The Riley Field and Beaver Creek Fires burned through allotment and pasture boundary fences needed to manage rotational grazing within specific pastures and time periods outlined in management plans for each allotment.

Repair of these fences is necessary to keep livestock out of the burned and seeded areas until objectives are met and to allow pre-fire management to occur once livestock grazing resumes. Also, by maintaining fences of pastures adjacent to the burned area, unburned BLM and private land pastures will continue to be grazed as scheduled without livestock moving into the burned areas.

Without the maintenance of existing fences damaged by the fire, livestock use following the rest period will be unmanageable.

Fence repairs will prevent livestock from over utilizing any unburned area within the perimeter of the fire and impacting resource values. Livestock, wild horses and wildlife tend to congregate in areas where vegetation and water are readily available and the unburned areas provide these resources, especially with the surrounding vegetation and water sources no longer available.

Approximately 249 miles of 4-wire fence will be reconstructed as needed including replacement of H-braces and rock cribs but may be as extensive as full fence replacement, depending on the severity of damage. In all fence reconstruction, metal materials will be used to the extent possible to prevent future issues.

All fences will be outside of the 0.6-mile distance from leks to reduce collision hazards to flying birds (sage-grouse) as designated in the conservation guidelines in the Oregon Sage-Grouse Conservation Strategy (Hagen 2011).

8. Range Improvements (repair springs, etc…)

Repairing springs and troughs will provide water sources in areas where water is in short supply thus drawing livestock (when they are allowed to return to the allotments), wild horses and wildlife to other parts of the allotments and lessening impacts to more reliable water sources. Repairing spring exclosure fences will prevent over utilization of riparian vegetation.

Construction of sediment traps and cleaning of water catchment basins will prevent water holding facilities from filling with sediment which reduces water holding capacity. These water sources are necessary for livestock, wild horses and wildlife throughout the year and aid in distribution across pastures. Catchment basins provide water to those areas with limited water, reducing the distance wildlife and livestock must travel to this valuable resource. They also provide a means to distribute livestock throughout an allotment in an effort to reduce high impact use areas. If catchment basins are not cleaned, wildlife, wild horses and livestock will congregate in areas of reliable water which will lead to over-utilization in concentrated areas of pastures and allotments.

9. Herbicide Application

Research (Davies, Sheley, 2011; Davies, 2010) has shown that herbicide treatment has the highest rate of success in the control of invasion or migration of undesirable annual grasses and noxious weeds. Herbicide application will allow site-specific control of invasion within identified boundaries followed by monitoring of treatment success. Plateau (*Imazipic*) has been proven as the best choice for treatment of invasive annual grasses and will be among the herbicides in the overall

suite of chemicals used in the weed treatments prescribed for the Riley Field and Beaver Creek Fires. None of the currently authorized herbicides are selective for annual grasses, such as medusahead and cheatgrass, which are two of the biggest threats to persistence of sagebrush steppe and its associated wildlife community (Hagen 2011).

Areas outside the perimeter that may be vectors for invasion within the boundary will be treated using the best available methods, including the use of herbicides. These areas include those which were used for the purposes of fire suppression (access roads, fire breaks, staging areas) as well as infested areas directly adjacent to the fire boundary that will provide seed sources for future invasions.

Early Detection Rapid Response (EDRR) will be used to survey and treat invasive and noxious weeds within the boundary of the Riley Field and Beaver Creek fires, as well as along those routes used to access the fire during suppression efforts, in order to prevent the spread of existing weed sites and prevent the establishment of new weed species. The EDRR is an effective tool because it provides treatment, using the best available methods, of weed sites before they become ecological and economic issues. It also reduces the amount of chemicals, when chemicals are the best available option, needed to control an infestation.

In areas of heavy annual grass infestations, where spread due to newly available resources as a result of the fire is highly probable, broadcast herbicide treatment is the best method for preventing cheatgrass spread. Preventing the germination of cheatgrass during the late fall, early winter and spring will allow native perennial grasses to establish and dominate the understory and decrease the amount of time needed for recovery of valuable sage grouse habitat (Davies, Sheley, 2011).

10. Wild Horse Removal

Management activities will occur to rehabilitate wild horse habitat in Stinkingwater HMA. Aerial and ground based seeding of desirable perennial herbaceous, Wyoming big sagebrush and bitterbrush plant species will increase the likelihood of desirable perennial vegetation establishing in areas with the highest risk of conversion to annual grass dominated plant communities. Upon successful establishment, these seeded species will provide more nutritious and palatable forage habitat for wild horses compared to annual grass communities, therefore maintaining or improving carrying capacity for all demands within the HMA. Aerial and ground-based application of effective herbicides will reduce establishment of annual species, therefore improving the likelihood of establishing desired seeded and naturally recovering plant species.

Wild horses in the burned portion of the Stinkingwater HMA will not be immediately removed. If monitoring indicates wild horses are contributing to a “Light” (21-40%) utilization level across 5% of the burned area horses will then be relocated to the unburned portion of the HMA. Relocation of the wild horses will be done using the helicopter drive method. Relocation will be done to ensure vegetative recovery in the burned area. Because wild horses are territorial and establish their own home ranges, relocation may require multiple flights to move all wild horses and relocate any horses that manage to return to the burned area. Wild horses found outside the HMA boundary will also be relocated to the HMA via helicopter drive method. Direct impacts to wild horses include the stress associated with being herded out of the burned perimeter. The intensity

of these impacts varies by individual, and is indicated by behaviors ranging from nervous agitation to physical distress. When being herded by the helicopter, injuries sustained by wild horses may include bruises, scrapes, or cuts to feet, legs, face, or body from rocks, brush or tree limbs. Rarely, wild horses encounter barbed wire fences and receive wire cuts. The maximum distance wild horses will be driven out of the burned perimeter will be approximately seven miles.

11. ARS Study Plots

The study plots proposed by the ARS will serve the public in providing a better understanding of planting methods for woody species necessary for wildlife needs in the post fire environment where a quick and dependable return to pre-fire conditions are necessary to maintain diverse species populations.

12. No Action Alternative (Alternative A)

The No Action Alternative was not selected because it does not help with reestablishment and spread of native and non-native, desirable species in areas of the fire unlikely to recover naturally, nor will it allow for treating noxious weeds with the most effective herbicides within existing weed infestations adjacent to each fire.

Fences will not be maintained or reconstructed; therefore livestock grazing will occur in burned areas, resulting in impacts to recovering native forbs and grasses, leading to poor quality forage, less vegetative diversity within the fire area, and the greater likelihood of future fires. Without the ability to control livestock there will be less opportunity to protect burned areas from livestock grazing until vegetative objectives are met. Under this scenario, Wyoming big sagebrush plugs will not be planted leading to increased recovery times (potentially 100 years or more) in order to return to its former vigor and cover and once again provide usable habitat for sage dependent species, such as sage-grouse. This will lead to a long-term (potentially >100 year) downsize in localized populations of sage grouse, potentially contributing to the need for listing.

Seeding treatments will not occur allowing invasive annual grasses to dominate the eastern portion of the fire perimeter, potentially converting it to an annual grassland and removing valuable wildlife habitat, including that needed by sage-grouse. This will provide a vector for invasive grasses and other noxious and invasive weeds to penetrate farther into the Stinkingwater Mountains and further degrade important wildlife habitat leading to a decrease in biodiversity throughout the region. It will be difficult, if not impossible, to stabilize soils and reduce offsite soil loss due to the lack of desirable perennial vegetation to hold soils in place and protect the remaining biological soil crusts prior to objectives being met. There will be a decrease in fire return intervals due to fine fuel build up from annual grasses. Increases in recovery time for antelope bitterbrush and mountain big sagebrush will occur with higher risks of noxious weed and invasive annual grass infestations.

AUTHORITY

Authority for the stabilization and rehabilitation wildfire decisions is found under 43 Code of Federal Regulations (CFR) 4190.1 Effect of wildfire management decision (a) Notwithstanding the

provisions of 43 CFR 4.21(a)(1), when BLM determines that vegetation, soil or other resources on the public lands are at substantial risk of wildfire due to drought, fuels buildup, or other reasons, or at immediate risk of erosion or other damage due to wildfire, BLM may make a rangeland wildfire management decision effective immediately. Wildfire management includes but is not limited to: (1) Fuel reduction or fuel treatment such as prescribed burns and mechanical, chemical, and biological thinning methods (with or without removal of thinned materials); and, (2) Projects to stabilize and rehabilitate lands affected by wildfire. Under these regulations, implementation of projects to stabilize and rehabilitate lands such as seeding (aerial and drilling), planting, weed treatments (aerial and ground), erosion control, road maintenance and protection, fence maintenance and reconstruction, and range improvement reconstruction will be effective upon the date of the authorized officer's signature.

This wildfire management decision is issued under 43 CFR 4190.1and is effective immediately. The BLM has made the determination that vegetation, soil, or other resources on the public lands are at substantial risk of wildfire due to drought, fuels buildup, or other reasons, or at immediate risk of erosion or other damage due to wildfire. Thus, notwithstanding the provisions of 43 CFR 4.21(a) (1), filing a notice of appeal under 43 CFR Part 4 does not automatically suspend the effect of the decision. Appeal of this decision may be made to the Interior Board of Land Appeals in accordance with 43 CFR 4.410. 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.

RIGHT OF APPEAL

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4 and Form 1842-1. If an appeal is filed, your notice must be filed with the Three Rivers Resource Area Field Manager, Burns District Office, 28910 Highway 20 West, Hines, Oregon 97738, within 30 days of receipt. The appellant has the burden of showing that the decision appealed is in error.

Filing an appeal does not by itself stay the effectiveness of a final BLM decision. If you wish to file a petition for a stay of the effectiveness of this decision, pursuant to 43 CFR 4.21, the petition for stay must accompany your notice of appeal. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

A petition for stay is required to show sufficient justification based on the standards listed below.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

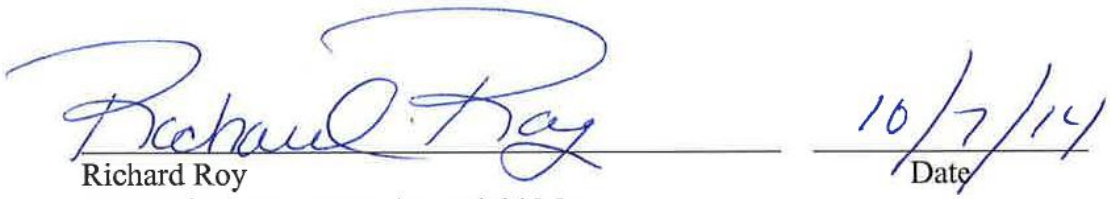
1. The relative harm to the parties if the stay is granted or denied.
2. The likelihood of the appellant's success on the merits.
3. The likelihood of immediate and irreparable harm if the stay is not granted.
4. Whether or not the public interest favors granting the stay.

A notice of appeal electronically transmitted (e.g. email, facsimile, or social media) will not be accepted as an appeal. Also, a petition for stay that is electronically transmitted (e.g., email, facsimile, or social media) will not be accepted as a petition for stay. Both of these documents must be received on paper at the office address above.

Persons named in the *Copies sent to:* sections of this decision are considered to be persons "named in the decision from which the appeal is taken." Thus, copies of the notice of appeal and petition for a stay must also be served on these parties, in addition to any party who is named elsewhere in this decision (see 43 CFR 4.413(a) & 43 CFR 4.21(b)(3)) and the appropriate Office of the Solicitor (see 43 CFR 4.413(a), (c)) **Office of the Solicitor, US Department of the Interior, Pacific Northwest Region, 805 SW Broadway, Suite 600, Portland, Oregon 97205,** at the same time the original documents are filed with this office. For privacy reasons, if the decision is posted on the internet, the *Copies sent to:* section will be attached to a notification of internet availability and persons named in that section are also considered to be persons "named in the decision from which the appeal is taken."

Any person named in the decision, *Copies sent to:* section of the decision, or who received a notification of internet availability that receives a copy of a petition for a stay and/or an appeal and wishes to respond, see 43 CFR 4.21(b) for procedures to follow.

Authorized Officer Signature:



Richard Roy
Three Rivers Resource Area Field Manager

10/7/14
Date