USDI, Bureau of Land Management
Andrews Resource Area, Burns District

DECISION RECORD

SES Forest and Woodland Restoration
Environmental Assessment
DOI-BLM-OR-BOSO-2010-0022

BACKGROUND

The SES Forest and Woodland Restoration Environmental Assessment (EA) analyzed issues emerging from field observations of forest health, aspen, and mahogany stand conditions, and overall ecosystem health in the project area. Bureau of Land Management (BLM) field observations and a tour with Insect and Disease specialist, of the Blue Mountain Pest Management Service Center, demonstrated a need for treatment to improve and restore ecosystem health in the SES Project Area.

COMPLIANCE

The attached EA (SES Forest and Woodland Restoration EA) DOI-BLM-OR-BOSO-2010-0022, is tiered to the Three Rivers Proposed Resource Management Plan and Final Environmental Impact Statement (Three Rivers PRMP/FEIS) 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:

- The National Environmental Policy Act (NEPA) (42 U.S.C. 4321-4347), 1970.
- Federal Land Policy and Management Act (43 U.S.C. 1701), 1976.
- Public Rangelands Improvement Act (43 U.S.C. 1901. 1978).
- Burns District Noxious Weed Management Program Environmental Assessment (EA) (OR-020-98-05) (1998).
- Knick and Connelly 2011, *Ecology and Conservation of Greater Sage-grouse: A Landscape Species and its Habitats* (Monograph)
- Oregon Department of Fish and Wildlife's Greater Sage-Grouse Conservation Strategy Assessment and Strategy for Oregon (Hagen, 2011).
- Hagen (2011) has included in the Strategy the 9 chapters from the sage-grouse monograph (Knick and Connelly 2011) that are applicable and more specific to the sage-grouse situation in Oregon. He also includes information from the United States Fish Wildlife Service 12-Month Finding (USFWS 2010) that are specific to Oregon as well.
- In the Strategy on page 74, Hagen (2011) discusses conflicting information from other studies included in the monograph such as Hanser and Knick (2011) and

that "These findings are contrary to the current mosaic of habitat disturbance and population persistence of sage-grouse in Oregon."

- The Burns Interagency Fire Zone Fire Management Plan (2004). The project area lies entirely within the Silver North, Lakes, and Silvies Fire Management Units (FMUs).
- Four of the five key points set forth within the National Fire Plan (NFP)[1]. Additionally, the proposal responds to the goals of A Collaborative Approach for Reducing Wildfire Risk to Communities and the Environment: 10-year Comprehensive Strategy[2].

Key points of the NFP are:

1. Firefighting preparedness
2. Rehabilitation and restoration of areas affected by wildfire
3. Hazardous fuels reduction
4. Promote community assistance
5. Accountability

Goals of the NFP 10-Year Comprehensive Strategy:

1. Improve Fire Prevention
2. Reduce Hazardous Fuels
3. Restore fire-adapted ecosystems
4. Promote community assistance

- Harney County Community Wildfire Protection Plan (CWPP) founded on the NFP and the related 10-year Comprehensive Strategy in Harney County (PF-IRA-006, DNRC et al. 2005). The CWPP was completed in 2005 through a collaborative effort with a diverse group of interested parties. The purpose and need of the Proposed Action are in conformance with the CWPP goals of protecting communities, rural residences and structures, grazing lands, recreational lands, and cultural resources. The CWPP recommends that fuels reduction projects focus on Fire Regime Condition Class (FRCC) 3 (Section 10, Fire Management) lands and private landowners collaborate with Federal agencies to make fuels management efforts more effective.

Finally, the Proposed Action is in compliance with State, tribal and local laws and regulations.

[1] **National Fire Plan (NFP)**: A collection of policies and documents for actively responding to severe wildland fires and their impacts to communities while ensuring sufficient firefighting capacity for the future (http://www.fireplan.gov).

[2] http://www.westgov.org/wga/initiatives/fire/final_fire_rpt.pdf

DECISION

Having considered the Proposed Action and No Action Alternative and associated impacts and based on analysis in EA DOI-BLM-OR-BOSO-2010-0022, it is my decision to implement the Proposed Action which utilizes various methods of prescribed fire and mechanical treatments to reduce hazardous fuel loads, restore plant communities, and improve wildlife habitat diversity. Additionally, a Finding of No Significant Impact (FONSI) found the Proposed Action analyzed in DOI-BLM-OR-BOSO-2010-0022 did not constitute a major Federal action that would adversely impact the quality of the human environment. Therefore, an Environmental Impact Statement was unnecessary and will not be prepared.

The proposal is to utilize various methods of prescribed fire and mechanical treatments to accomplish specific objectives described within the purpose and need section. The project area treatment proposals are grouped into three distinct groups, based on the targeted vegetative communities: forest areas (predominately ponderosa pine stands), mountain big sagebrush-bunchgrasses communities, and big game browse/deciduous plant communities. The big game browse/deciduous plant communities include riparian areas, aspen, mountain mahogany, and bitterbrush stands. These communities are intermixed within the forested areas as well as the mountain big sagebrush/bunchgrass communities. In addition to the mechanical and prescribed fire treatments, Large Woody Debris, combined with native riparian plantings, could be added to Lost Creek to accelerate recovery of approximately 600 feet of incised channel.

Forested Areas Treatment

There are approximately 3,597 acres within the project area dominated by ponderosa pine-bunchgrasses plant communities. Approximately 70-90 percent of these stands have become overstocked due to absence of fire and other management practices. Other important plant communities occurring within these sites include quaking aspen, mountain mahogany, and bitterbrush. Juniper has encroached upon these plant communities. Objectives in these areas are to reduce hazardous fuel loading and the risk of sustained crown fires, increase forest health, vigor, and resiliency to disturbances, such as fire, insects, and disease, and to improve wildlife habitat. To return these stands to a historical ponderosa pine community, it is necessary to reduce surface, ladder, and continuous canopy fuels in stages (Agee 2005). The proposal is to thin and/or underburn overstocked pine stands and remove encroaching juniper. Several untreated islands would be left to provide quality thermal and hiding cover for wildlife. These islands would be determined during onsite project layout. Approximately 50-90 percent or 1,799 to 3,237 acres of these communities would be targeted for treatment. Within the treated areas, all juniper trees except those displaying old-growth characteristics or obvious wildlife occupation would be cut and piled. Understory and intermediate and co-dominant overstory ponderosa pine and other conifer trees could be thinned using variable tree spacing creating basal areas ranging from 40 to 100 feet^2/acre (Powell 1999). Thinning would retain the largest and best formed trees for overstory retention. All slash would be piled either by hand or machine depending on feasibility and resource concerns such as slope/terrain or special status species concerns. All piles would be burned after the

vegetation cured (vegetation should cure within two years). A prescribed underburn could be conducted three to seven years after mechanical treatments to further reduce surface fuels (litter, twigs, branches less than three inches) in the same stands. This would allow the treated stands to respond to initial mechanical treatments that open up the stands allowing for less competition for available water, nutrients, and sun light. This response should help the stand cope with the stress of the prescribed underburn.

If it is determined to be both economically and environmentally feasible, biomass[3] could be sold and removed. The determination on whether or not biomass could be sold and removed would be determined by 1) the current market for biomass, 2) the ease of removing the biomass (topography, existing roads, right-of-ways), 3) and whether or not there is an environmental or cultural concern with the biomass removal treatment, such as special status species habitat or sites of cultural significance. Biomass removal would be accomplished using ground-based yarding systems. Removal of woody material due to these treatments would create skid trails and landings. Ground based yarding systems are limited to 35 percent slopes or less. Mechanical felling by hand held chainsaws is expected on all trees selected for removal. Cut trees would likely be skidded to a landing, loaded on trucks, and hauled off site. Biomass utilization could involve the creation of temporary new roads and the establishment of landing sites. There could be up to three miles of temporary new road construction to accomplish biomass removal. Road construction would only be performed where it is not an environmental or cultural concern. There would be no new road construction through riparian areas, through or adjacent to cultural sites, or sites containing or providing important habitat for special status species. All created roads and landings would be closed and rehabilitated once the treatments are completed. Most of these treatments would utilize existing BLM controlled roads.

Mountain Big Sagebrush/Bunchgrass Communities Treatment

There are approximately 7,803 acres in the project area classified as mountain big sagebrush-bunchgrass plant communities, but are currently being overtaken or dominated by encroaching juniper and ponderosa pine. Scattered ponderosa pine woodlands are intermixed within some of the mountain big sagebrush-bunchgrass plant communities.

The objective in these areas is to restore and enhance existing mountain big sagebrush-bunchgrass and pine woodland communities to improve stand conditions and wildlife habitat. The management objective in these communities is to remove encroaching juniper and pine trees. Approximately 50-80 percent, or 3,902 to 6,242 acres, of these communities being encroached upon by juniper and pine would be targeted for treatment. The recommendation to treat a given area would be determined by the level of encroachment and relative importance of the area for big game and other locally important species such as sage-grouse. Mountain big sagebrush/bunchgrass communities in the Phase I transitional stage toward juniper woodlands would not be targeted for treatment. The proposal in the mountain big sagebrush plant communities in a Phase II and Phase III

[3] **Biomass:** Wood products obtained from project treatments to include: tree limbs, tree tops, unmerchantable stems, and saw logs.

transitional stage toward juniper woodlands consists of an array of management actions in order to reduce the influence of encroaching juniper and pine. The principal treatments used to treat 70-90 percent of these communities would be cutting encroaching juniper and piling the slash. In areas where this treatment is used, piles would be moved away from retained desired vegetation to the extent practical. Piling would be done by hand or mechanized equipment (excavator, feller buncher, etc.). Where ponderosa pine has expanded outside its historical niche, understory thinning, ranging from complete removal to a 22-foot spacing, may occur. All piles would be burned after the vegetation cured under wet or frozen soil conditions.

Cutting encroaching juniper and pine followed by jackpot burning after juniper has cured and/or juniper/pine cutting and leaving may be employed. The cutting and leaving activity would only be used in sparse fuels[4] where cut and left vegetation would not be considered to be a hazard. Broadcast fire **would not** be used in these communities. Similar to the forested treatments, if it is determined to be both economically and environmentally feasible, cut biomass could be sold and removed.

Big game Browse Maintenance / Deciduous Vegetation Treatment

Mountain mahogany, bitterbrush, and aspen stands, occur in varying size patches, ranging from less than an acre to 100 acres, throughout the forested areas and mountain big sagebrush/bunchgrass plant communities of the project area. In addition, several ephemeral and perennial streams and their associated riparian plant communities are found within the project area. All of these communities have been encroached upon, and in some cases are being dominated, by encroaching juniper, pine, and other conifer trees. The proposal in these treatment areas is to remove encroaching vegetation. It is a management objective to treat 60-100 percent of project area that include mountain mahogany or bitterbrush displaying juniper, pine, or other conifer encroachment and occurring in blocks of at least 1/4 of an acre under the Proposed Action. An additional objective would be to treat 60-100 percent of aspen stands or isolated groves of quaking aspen or deciduous woody riparian vegetation affected by juniper and other conifer encroachment.

Mechanical cutting would be the primary tactic used in these communities. Underburning may be utilized in addition to mechanical treatments or as a substitute for mechanical treatments in an effort to cut down on juniper, and other conifer seedling establishment. All juniper trees except those displaying old-growth characteristics or obvious wildlife occupation would be cut and piled. Understory and intermediate and co-dominant overstory ponderosa pine and other conifer trees would be thinned using variable tree spacing creating basal areas ranging from 10 to 50 feet^2/acre. Thinning would retain the largest and best formed trees for overstory retention. If it is determined to be both economically and environmentally feasible, biomass could be sold and removed. All slash would be piled either by hand or machine depending on feasibility and resource concerns. All piles would be burned after the vegetation cured (vegetation should cure

[4] **Sparse Fuels –** Areas that have a dead fine fuel loading less than one ton/acre or areas containing less than five trees/acre.

within 2 years). Less than 20 percent of the treatments in these communities may involve cutting the encroaching vegetation followed by jackpot burning and/or cutting and leaving the encroaching vegetation. The cutting and leaving activity would only be used in sparse fuels where it is determined not to be a hazard. Aspen stands and riparian areas could be fenced to protect suckers and seedlings from browsing animals. The need for fencing would be determined through monitoring. Monitoring would determine if suckers and seedlings are being continuously browsed upon to the point that regeneration is reduced. If so, exclosure fences would be constructed. Big game exclosure fences would be built to Burns District BLM standards, which consist of woven wire from ground to at least seven feet aboveground. If a big game exclosure fence is determined to be needed, it would remain in place until suckers or saplings attain a height that is above the reach of most grazing animals as determined by rangeland monitoring. Accomplishing these treatment objectives would result in treating no more than approximately 1,200 acres within the project area. This amount would be reduced from the total treated forest acres and mountain big sagebrush-bunchgrasses communities' vegetative groups. Resource advisors would recommend application of this treatment option to the deciding official if sufficient bitterbrush, mahogany, aspen or deciduous riparian vegetation is identified on site.

Design Features of the Proposed Action

1. Protect cultural resource values throughout the life of the project. Archaeological inventory of the proposed treatment areas will be completed prior to any proposed treatments. Archaeological sites may be avoided within mechanical treatment units and activity generated fuels would not be piled within the boundaries of sites. Sites with combustible components will be protected during deployment of prescribed fire by black-lining resources and use of appropriate ignition techniques. The District Archaeologist will review burn plans prior to project implementation.

2. Protect Special Status vegetation species throughout the life of the project. Special Status plant populations will be avoided within mechanical treatment units if it is determined to be necessary for their protection. Fire intolerant sensitive plants will be protected during deployment of prescribed fire by black-lining resources and use of appropriate ignition techniques. The District Fuels Botanist will review burn plans prior to project implementation.

3. Protect Special Status wildlife species (fisheries and wildlife) habitat throughout the life of the project. Structures or areas with Special Status Species habitat value identified during wildlife and fish surveys will be protected during project implementation. The District Fuels Wildlife Biologist and the Three Rivers Fisheries Biologist will review burn plans prior to project implementation.

4. Sites that lack sufficient understory species, such as fully developed juniper woodlands or densely stocked pine stands, or areas burned at a high intensity, such as pile burning, may require seeding following a prescribed fire treatment to

attain the desired post-fire response. Mixtures of native or a native/nonnative mix of grass, forb, and shrub seed may be applied to designated areas with aerial or ground-based methods. Candidate sites for seeding would be determined on a case-by-case basis as monitoring data is gathered. Monitoring data would include but is not limited to: severity of the prescribed fire (percent soil sterilization), condition of the site prior to burn and monitoring the natural response to the burn.

5. No downed ponderosa pine logs greater than 15 inches diameter and no snags greater than 15 inches diameter at breast height would be intentionally burned in any unit. Snags may be intentionally created if an area is determined to be snag deficient following mechanical and prescribed fire treatments. An area may be considered to be snag deficient if it has an average of less than 2.5 snags per acre.

6. The raking of deep duff around old-growth ponderosa pine trees, large snags and large down woody debris may occur prior to prescribe burning if it is determined to be necessary to retain them.

7. Maintain suitable big game hiding and thermal cover. Ensure mountain mahogany stands and conifer leave islands continue to function as big game cover following treatments. Retain a minimum of 10 percent of expansion juniper and young pine stands within the project area to provide thermal and hiding cover for mule deer and elk.

8. Avoid manual cutting of pine and juniper with old-growth characteristics or obvious wildlife occupation (cavities or nests). Consider protection of such trees during prescribed fire operations.

9. All ponderosa pine stumps greater than 14 inches diameter created during the project may be treated with Sporax to guard against the threat of annosus (*Fomes annosus*) root disease. The determination to use Sporax would be based on the presence of existing annosus in adjacent timber stands.

10. Two years of goshawk inventory will be performed prior to any implementation of the Proposed Action on any given forested area.

11. Prior to treatment of prescribed fire and mechanical treatment units, noxious weed populations in the area will be inventoried. Weed populations identified in or adjacent to the project area will be treated using the most appropriate methods in accordance with the Noxious Weed Management Program EA/Decision Record (DR), OR-020-98-05.

12. 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 site, minimizing disturbance activities and completing follow-up monitoring for at least 3 years to ensure no new noxious weed establishment. Should noxious weeds be found, appropriate control treatments will be performed

in conformance with the Noxious Weed Management Program EA/DR, OR-020-98-05.

13. Piles and cut juniper will be jackpot burned when soil moisture is high or under frozen soil conditions to reduce threat of soil sterilization and to maintain the existing shrub and herbaceous plant communities to the extent practical.

14. Prescribed burning will follow the Oregon State Smoke Management Plan in order to protect air quality and reduce health and visibility impacts on designated areas.

15. Any road damaged during treatments by vehicles, equipment or anything related to treatments will be restored to its previous standard including maintaining adequate drainage to provide for resource protection.

16. Dispersed campsites identified within the project area will not be intentionally burned during broadcast burn operations. Protection will be considered for leave islands of sufficient size around identified campsites to protect cultural and recreation values.

17. Limit the amount of mechanized equipment in the riparian area. Landings, machine piles and any temporary new road construction will be kept out of riparian areas.

18. Prior to beginning operations requiring any fuel tanks or fuel handling at the site, the contractor or BLM will develop and submit to the authorized officer a spill contingency plan.

19. The use of heavy equipment will occur under dry or frozen soil conditions to limit impacts. This includes activities such as timber removal and machine piling.

20. Should post-treatment monitoring indicate that adverse resource impacts are occurring due to use by motorized vehicles, a temporary motorized vehicle use closure may be implemented in areas being affected.

21. Basal Area Spacing – The intent of the silvicultural prescription is to leave a natural appearing forest. Varied tree spacing, as opposed to even spacing is desired. Some tree clumping for stand diversity will be left as well as some gaps for understory vegetation. Retained basal area will vary allowing some areas with higher and others with lower basal area to provide different types of wildlife cover. In areas where basal area spacing cannot be achieved, a spacing of 22 feet by 22 feet will be established.

22. Any new temporary road construction will be decommissioned and rehabilitated once treatments in the area have been completed. Road construction and renovation will be limited to the dry season, May 1 to October 15, or as

determined by the Authorized Officer. Temporary road locations will be located along ridge tops and flat areas away from streams and drainages to reduce or eliminate sedimentation. All temporary roads will be designed so as to eliminate as much cut and fill as possible. In sections of road where cut and fill exceeds one foot or greater in depth, these sections will be re-contoured to match the original slope during decommissioning. All decommissioned temporary spur roads will be ripped, water bared and reseeded with a native seed mix to reduce soil erosion and weed establishment. Water bar placement will follow Oregon's Forest Protection Laws suggestions for slope and soil type listed below:

Suggested Water Bar Intervals for Different Soils

Slope Grade	**Erodible (Sand or Ash)**	**Clays**
2 – 5%	400 feet	600 feet
6 – 12%	200 feet	300 feet
13 – 18%	100 feet	200 feet
19% or greater	50 feet	150 feet

23. Site specific burn plans will be written and adhered to for any of the prescribed fire treatments within the project area. All burn plans will adhere to the aforementioned project design elements. The burn plan outlines the specific prescriptions and atmospheric conditions the prescribed fire shall take place in. Burn plans outline mitigating measures for air quality and fire management to include: Prescribed fires and slash pile burning should be planned for implementation when atmospheric conditions promote good smoke dispersion into the atmosphere. These conditions are adequate mixing height, transport wind speed and wind direction. Coordination with other prescribed fire projects occurring at the same time may be necessary. Piles should be burned when fuel moistures within the piles are low enough to promote efficient burning, thus reducing smoke production. Prescribed fire and pile burning ignitions should be planned to minimize fire smoldering long into the night to minimize smoke pooling into the Silvies River Drainage and/or the Silver Creek Valley. A proximity analysis of all units indicated the greater Burns, Hines and Riley area may be potentially impacted. In addition, developed campsites, various roads and Highways 20 and 395 may be potentially impacted. Subsequent site specific burn plans should contain a contact list of residents, other interested federal, state and local agencies and/or other places of interest adjacent to the project area to communicate potential impacts. All burning should be coordinated with the Oregon Department of Forestry by following the Smoke Management Forecast and Instructions as issued by Salem Forestry Weather Center. Depending on the size or number of actual burn units or number of piles to be ignited, specific unit implementation consultation with the forecaster at the Oregon Department of Forestry may be necessary. Depending on the timing and type of burning, coordination with the Oregon Department of Transportation may be necessary.

COMMENTS RECEIVED

A copy of the original EA and unsigned FONSI were mailed on June 15, 2012 to permittees with range permits within the SES project boundary, adjacent landowners, special interest groups and other federal and state agencies. In addition, a notice was posted in the *Burns Times-Herald* newspaper on June 20, 2012. The EA and associated appendices and maps, along with an unsigned FONSI were also made available on the Burns District BLM's website on June 20, 2012 at (www.blm.gov/or/districts/burns/plans/index.php). The Burns District BLM received comments from two individuals who have property adjacent to the proposed project boundary. The following is a list of these comments and the BLM's response to those comments.

Adjacent Landowner 1:

Comment: I own property adjacent to the Trout Creek 1860 Acre project. I spoke briefly to Jon Reponen about the scope of work that will take place on the project. My only concern is in regards to the problem with the Pine Butterflies. I am afraid that since the infestation is an ongoing problem, we don't yet know the mortality rate of the pine trees. I would like to see the infestation of the pine butterflies pass before the thinning project begins, so that whatever trees don't survive the infestation could be thinned out to lower fire fuel danger. I also fear that if the thinning project starts before the infestation passes, between the butterflies kill of the pine trees and the thinning project the forest would appear very sparse. This would eliminate many of the thickets used for cover by big game in the area.

Response: The BLM agrees with this comment and shares similar concerns. Project implementation will not occur until after the pine butterfly outbreak has subsided in order to meet this concern.

Adjacent Landowner 2:

Comments: These comments are summarized by a need for clarification on aspects of the proposed action and definitions in the EA. A meeting or field visit was requested.

Response: The BLM met with the adjacent landowner and walked through some of the project area as well as the private property. Their concerns, such as thinning prescriptions, unknown acronyms, pine pathogens, etc., were discussed and addressed during the tour.

RATIONALE

The Proposed Action was selected over the other alternatives because it best meets project objectives outlined in the purpose and need for action and the decision factors listed in the table below:

Ten Project Objectives	Proposed Action Rationale
* Reduce surface fuels in treated forested stands from seven tons per acre to approximately three tons per acre.	*The mechanical thinning and prescribed burns are expected to achieve this objective.
* Reduce density of understory trees acting as ladder fuel in treated forests or woodlands so that treated stands basal area range from 40-100 feet squared/acre.	*The mechanical thinning will achieve this objective in the areas proposed for treatment.
* Reduce woody fuel loading within treated western juniper encroached mountain big sagebrush communities in the project area. Reduce 1-hour and 10-hour time lag fuels associated with juniper by a mean total of 90 percent and 100-hour fuels by a mean total of 75 percent in treated areas.	*The mechanical treatments followed by prescribed pile or jackpot burning is expected to achieve this objective.
* Move mountain big sagebrush/bunchgrass plant communities and hydrological conditions within the project area toward historic conditions by reducing live western juniper density by a mean total of 70 percent within treated areas.	*The mechanical and prescribed fire treatments are expected to meet this objective in treated areas.
* Move pine forest, pine woodland, and pine savannah stand densities, structure, and composition toward historic conditions within the project area.	*The mechanical thinning along with the prescribed underburns would move these ponderosa pine communities toward more historic conditions.
* Reintroduce fire as a disturbance process in mountain big sagebrush/bunchgrass, and ponderosa pine woodland and forest communities within the project area.	*The prescribed burning that will occur under the Proposed Action will reintroduce fire disturbance processes to the plant communities in the project area.
* Reduce western juniper encroachment into key wildlife habitat dominated by bitterbrush, mountain mahogany, aspen, or riparian hardwoods by 90 percent within the project area while maintaining habitat values.	* The mechanical and limited prescribed fire treatments targeting juniper in these communities is expected to meet this objective.
* Increase forage available to big game and other wildlife on BLM-administered lands in the project area while retaining adequate cover.	* The mechanical treatments on both juniper and overstocked pine stands along with the prescribed fires will increase forage available for big-game and other wildlife species. The variable nature of the treatments and areas selected as leave islands will also retain adequate cover.
* Increase forage available to domestic livestock on lands within Packsaddle, Skull Creek, Sawtooth, Hay Creek, Silvies and Trout Creek grazing allotments.	* The treatments listed above (mechanical treatments and prescribed fire) will also increase forage available for domestic livestock.
* Reduce or slow erosion within the six units that make up the SES project area.	*The Proposal should promote better vegetative ground cover and a more resilient soil layer reducing erosion in the project area.

Two Decision Factors	Proposed Action Rationale
* Does the alternative achieve project objectives in a manner that considers the health and safety of the public and fire management personnel?	*The Proposed Action does achieve project objectives in a manner that considers the health and safety of the public and fire management personnel. Other alternatives, such as a prescribed fire only alternative, were eliminated from analysis because the BLM felt those alternatives warranted unsafe conditions to the public and fire management personnel.
* Does the alternative achieve project objectives in a manner that is cost-effective?	*The Proposed Action is the best alternative for meeting project objectives in a cost effective manner. Other alternatives were considered but were either dropped because they presented safety concerns, they did not meet project objectives, or the cost associated with implementation was too excessive.

APPEAL PROCEDURES

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with regulations contained in 43 Code of Federal Regulations (CFR), Part 4 and Form 1842-1. If an appeal is filed, your notice of appeal should be filed with the Three Rivers Resource Area Field Manager, Burns District Office, 28910 Highway 20 West, Hines, Oregon 97738, within 30 days following receipt of the final decision. The appellant has the burden of showing the decision appealed is in error. A copy of the appeal, statement of reasons, and all other supporting documents should also be sent to the Regional Solicitor, Pacific Northwest Region, U.S. Department of the Interior, 805 SW Broadway, Suite 600, Portland, Oregon 97205. If the notice of appeal did not include a statement of reasons for the appeal, it must be sent to the Interior Board of Land Appeals, Office of Hearings and Appeals, 801 North Quincy Street, Arlington, Virginia 22203. It is suggested appeals be sent certified mail, return receipt requested.

Request for Stay

Should you wish to file a motion for stay pending the outcome of an appeal of this decision, you must show sufficient justification based on the following standards under 43 CFR 4.21:

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

Richard Roy
Three Rivers Resource Area Field Manager

12/18/13
Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Burns District Office
Three Rivers Resource Area
Finding of No Significant Impact

SES Forest and Woodland Restoration
Environmental Assessment
OR-BOSO-2010-0022-EA

INTRODUCTION

The Three Rivers Resource Area, Burns District, has prepared an Environmental Assessment (EA) to analyze fuels management and ecosystem restoration treatments within the SES Project Area (23,672 acres). The SES Project Area is made up of six individual units occurring in three geographic areas across the northwest portion of the Three Rivers Resource Area. The Silver Area is made up exclusively of the Wickiup Creek Unit (2,572 acres). The Wickiup Creek Unit is located approximately 28 miles northwest of Burns (T. 21 S., R. 26 E., Sections 1-3, 11, and 12). The Emigrant Area is made up of the Horse Springs Unit (14,016 acres) and the Emigrant Creek Unit (1,630 acres). The Horse Springs Unit is located approximately 12 miles northwest of Burns (T. 21 S., R. 28 E., Sections 12, 13, 24, 25; T. 21 S., R. 29 E., Sections 7, 16-21, 27-35; and T. 22 S., R. 29 E., Sections 2-11 & 14-16). The Emigrant Creek Unit is located approximately 19 miles northwest of Burns (T. 20 S., R. 29 E., Sections 20-22, and 28). The Silvies Area is made up of The Loco Spring Unit (2,039 acres), Lost Creek Unit (1,515 acres), and the Trout Creek Unit (1,860 acres). The Loco Spring Unit is located approximately 25 miles north-northeast of Burns (T. 18 S., R. 31 E., Section 35, and T. 19 S., R. 31 E., Sections 2, 11, and 14). The Lost Creek Unit is located approximately 22 miles north-northeast of Burns (T. 19 S., R. 31 E., Section 13, 24, and 25). The Trout Creek Unit is located approximately 23 miles north-northeast of Burns (T. 19 S., R. 32 E., Section 20-22, 28, and 29).

The purpose of the action is to move toward management objectives described in Three Rivers Resource Management Plan (RMP) within the SES Project Area by reducing hazardous fuels, restoring plant communities, and improving wildlife habitat diversity. The emphasis on treatments in forested areas would be to reduce densities of small diameter trees and duff and litter accumulations. The emphasis in shrublands, woodlands, and riparian areas would be to move conditions toward historic[1] species composition and structure while reducing fuels in the vicinity of the towns of Burns, Hines, and Riley, as well as numerous ranches, homes, and dwellings.

The need for action is western juniper, ponderosa pine and other conifers have encroached upon important plant communities impacting biodiversity, hydrologic cycles, fauna and nutrient cycling. Fuel accumulations (including duff and litter) have also occurred creating potential for large-scale, high-intensity wildfires threatening human life, property, and natural resources.

[1] **Historic**: Refers to a period prior to 1940 throughout this document.

SUMMARY OF THE PROPOSED ACTION

The proposal is to utilize various methods of prescribed fire and mechanical treatments to reduce hazardous fuel loads, restore plant communities, and improve wildlife habitat diversity. The project area treatment proposals are grouped into three distinct groups, based on the targeted vegetative communities: forest areas (predominately ponderosa pine stands), mountain big sagebrush-bunchgrasses communities, and big game browse/deciduous plant communities. The big game browse/deciduous plant communities include riparian areas, aspen, mountain mahogany, and bitterbrush stands.

Forested Areas Treatment

There are approximately 3,597 acres within the project area dominated by ponderosa pine-bunchgrasses plant communities. Approximately 70-90% of these stands have become overstocked due to absence of fire and other management practices. The proposal is to thin and/or underburn overstocked pine stands and remove encroaching juniper. Several untreated islands would be left to provide quality thermal and hiding cover for wildlife. Approximately 50 – 90% or 1,799 to 3,237 acres of these communities would be targeted for treatment. Within the treated areas, all juniper trees except those displaying old-growth characteristics or obvious wildlife occupation would be cut and piled. Understory and intermediate and co-dominant overstory ponderosa pine and other conifer trees could be thinned using variable tree spacing creating basal areas ranging from 40 to 100 feet[2] per acre. Thinning would retain the largest and best formed trees for overstory retention. All slash would be piled either by hand or machine depending on feasibility and resource concerns. All piles would be burned after the vegetation cured. A prescribed underburn could be conducted 3 to 7 years after mechanical treatments to further reduce surface fuels (litter, twigs, branches<3 inches) in the same stands. If it is determined to be both economically and environmentally feasible, biomass[2] could be sold and removed.

Mountain Big Sagebrush/Bunchgrass Communities Treatment

There are approximately 7,803 acres in the project area classified as mountain big sagebrush-bunchgrass plant communities, but are currently being overtaken or dominated by encroaching juniper and ponderosa pine. Approximately 50 – 80%, or 3,902 to 6,242 acres, of these communities being encroached upon by juniper and pine would be targeted for treatment. Mountain big sagebrush/bunchgrass communities in the Phase I transitional stage toward juniper woodlands would not be targeted for treatment. The proposal in the mountain big sagebrush plant communities in a Phase II and Phase III transitional stage toward juniper woodlands consists of an array of management actions in order to reduce the influence of encroaching juniper and pine. The principal treatments used to treat 70-90% of these communities would be cutting encroaching juniper and piling the slash. Piling would be done by hand or mechanized equipment (excavator, feller buncher, etc.). Where ponderosa pine has expanded outside its historical niche, understory thinning, ranging from complete removal to a 22-foot spacing, may occur. All piles would be burned after the vegetation cured under wet or frozen soil conditions. Cutting encroaching juniper and pine followed by jackpot burning after juniper has cured and/or juniper/pine cutting and leaving may be employed. The cutting and leaving activity would only be used in sparse

[2] **Biomass:** Wood products obtained from project treatments to include: tree limbs, tree tops, unmerchantable stems, and saw logs.

fuels [3]where cut and left vegetation would not be considered to be a hazard. Broadcast fire **would not** be used in these communities. Similar to the forested treatments, if it is determined to be both economically and environmentally feasible, cut biomass could be sold and removed.

Big game Browse Maintenance / Deciduous Vegetation Treatment

Mountain mahogany, bitterbrush, and aspen stands, occur in varying size patches, ranging from less than an acre to 100 acres, throughout the forested areas and mountain big sagebrush/bunchgrass plant communities of the project area. In addition, several ephemeral and perennial streams and their associated riparian plant communities are found within the project area. All of these communities have been encroached upon, and in some cases are being dominated, by encroaching juniper, pine, and other conifer trees. The proposal in these treatment areas is to remove encroaching vegetation. It is a management objective to treat 60 – 100% of the project area that include mountain mahogany or bitterbrush displaying juniper, pine, or other conifer encroachment. An additional objective would be to treat 60-100% of aspen stands or isolated groves of quaking aspen or deciduous woody riparian vegetation affected by juniper and other conifer encroachment.

Mechanical cutting would be the primary tactic used in these communities. Underburning may be utilized in addition to mechanical treatments or as a substitute for mechanical treatments in an effort to cut down on juniper, and other conifer seedling establishment. All juniper trees except those displaying old-growth characteristics or obvious wildlife occupation would be cut and piled. Understory and intermediate and co-dominant overstory ponderosa pine and other conifer trees would be thinned using variable tree spacing creating basal areas ranging from 10 to 50 feet^2 per acre. If it is determined to be both economically and environmentally feasible, biomass could be sold and removed. All slash would be piled either by hand or machine depending on feasibility and resource concerns. All piles would be burned after the vegetation cured. Less than 20 percent of the treatments in these communities may involve cutting the encroaching vegetation followed by jackpot burning and/or cutting and leaving the encroaching vegetation. The cutting and leaving activity would only be used in sparse fuels where it is determined not to be a hazard. Aspen stands and riparian areas could be fenced to protect suckers and seedlings from browsing animals. The need for fencing would be determined through monitoring. If monitoring determines that big game exclosure fences are necessary they would be built to Burns District BLM standards, which consist of woven wire from ground to at least 7 feet aboveground. If a big game exclosure fence is determined to be needed, it would remain in place until suckers or saplings attain a height that is above the reach of most grazing animals as determined by rangeland monitoring.

FINDING OF NO SIGNIFICANT IMPACT

Consideration of the Council on Environmental Quality (CEQ) criteria for significance (40 CFR 1508.27), both with regard to context and intensity of impacts, is described below:

[3] **Sparse Fuels –** Areas that have a dead fine fuel loading less than one ton/acre or areas containing less than five trees/acre.

Context

The Proposed Action would occur in northwest section of the Three Rivers Resource Area in three geographic areas (Silver Area, Emigrant Area, and Silvies Area) and would have local impacts on affected interests, lands, and resources similar to and within the scope of those described and considered in the Three Rivers Proposed RMP/Final Environmental Impact Statement (FEIS). There would be no substantial broad societal or regional impacts not previously considered in the Three Rivers Proposed Resource Management Plan (PRMP)/FEIS. The actions described represent anticipated program adjustments complying with the Three Rivers RMP/Record of Decision (ROD), and implementing forestry and woodland management programs within the scope and context of this document.

Intensity

The CEQ's ten considerations for evaluating intensity (severity of effect):

1. *Impacts that may be both beneficial and adverse.* The EA considered potential beneficial and adverse effects. Project Design Elements (PDEs) were incorporated to reduce impacts. None of the effects are beyond the range of effects analyzed in the Three Rivers PRMP, to which the EA is tiered.

   Air Quality: Impacts to air quality would be short lived, focusing on the times of project implementation to a few days post treatment. Additionally, all treatments would adhere to agency smoke management guidelines and the Oregon State Implementation Plan, thus reducing the negative impacts to air quality.

   American Indian Traditional Practices: There are no known specific locations of American Indian Traditional Practices within the SES Project Area Boundary. PDEs are in place to mitigate for American Indian Traditional Practices should any be discovered at any time during cultural clearances or during project implementation. Traditional practices associated with root gathering would benefit from implementing the Proposed Action since its treatments will promote the establishment of many root gathering plants.

   Cultural Heritage: Cultural resources would not sustain any direct or indirect adverse effects. PDEs are in place to protect identified archaeological resources from the direct effects of mechanical disturbance and fire-related damage. Secondary effects of mechanical disturbance, such as erosion of site deposits, would likewise be avoided through observation of the PDEs. Implementation of prescribed burning treatments would pose some risk to built resources or other fire-sensitive cultural resources. However, PDEs, such as, black-lining around sites and burning piles while the soils are wet or frozen would alleviate effects on built resources and fire-sensitive cultural resources.

   In the long-term, cultural resources in the project area would benefit from landscape-scale fuels reduction treatments as archaeological resources and built historic resources

would become less likely to sustain damage from a severe wildfire event and fire suppression activities.

Fire Management: For each unit the Proposed Action would reduce intensity and severity of wildfires and risk to firefighters by altering the continuity of fuels in the project area. The risk of a large-scale, high-intensity wildfire event occurring within any unit would be reduced as a result of the Proposed Action. Suppression actions would be able to employ more direct attack strategies minimizing acres burned in wildfires. First Order Fire Effects Computer Modeling indicates that thinning current pine stands to decrease the canopy cover and raise the canopy base height should increase the probability that the residual pine would survive a wildfire event. Thinning, combined with prescribed fire to lower ground fuel loadings, mainly duff and dead limb wood, increases the probability even more.

Forestry/Woodlands: The proposal would move both woodland and forested communities to more historic conditions. Much of the invading juniper and overstock pine would be removed leaving more resources for retained trees. Woodlands and forested communities would be more resilient to disturbances such as wildfire, pathogens, or bug outbreaks. Overall forest health would be improved as a result of the Proposed Action.

Migratory Birds: The Proposed Action would have direct effects on migratory birds during implementation, but the directed effects would be short lived. Additionally, direct impacts to migratory birds would be minimized by prescribed burning in the fall and winter months, and cutting and piling in the fall and winter where determined necessary. This would help reduce the amount of disturbance to migratory birds during breeding, nesting, and fledging seasons. The proposed treatments would benefit most migratory birds in the long-term as it provides for a diversity of habitats and an overall healthier ecosystem. It would have an effect on the few migratory bird species that prefer juniper woodlands or overstocked pine stands by reducing the amount of this habitat type. However these habitats would still exist as not all of these areas would receive treatment. The overall net effect of the Proposed Action would be an increase in habitat and structural diversity, and thus, an expected increase in avian species diversity.

Noxious Weeds: The Proposed Action's treatments would increase the risk of noxious weed establishment and spread. However, by following the PDEs, the introduction and spread of noxious weeds into any of the project areas would be minimized. Pre-implementation survey of the areas would allow district weed personnel to treat any existing weed species prior to initiation of ground-disturbing activities to minimize spread. Following the Proposed Action's treatments, post-project surveys would take place for up to three years in order to prevent the establishment of new noxious weeds species and prevent the spread of existing species into the newly disturbed areas.

Recreation/Off Highway Vehicles: Under the Proposed Action there may be brief impacts to recreational activities in the vicinity of the project area during implementation, such as, temporary closures of areas while prescribed burns are taking place. These disturbances would be less than a week in duration. Smoke and noise generated during project implementation could disrupt recreational activities in spring or fall seasons.

Again, these disruptions would be short-lived. In the long-term, recreational activities related to driving for pleasure, big game hunting, and wildlife viewing should be enhanced as habitat function and landscape diversity are expected to improve over time.

Social and Economic Values: There would be effects to the local economy under the Proposed Action. The Proposed Action may utilize contracts for thinning and to reduce biomass in the project area. Purchase of supplies and equipment necessary for implementation of the Proposed Action from community merchants would be generated. Biomass may be made available for mills or alternative energy plants as well.

Soils/Biological Soil Crusts (BSC): Implementation of the Proposed Action treatments would elevate the risk of soil erosion and lead to a small loss in BSC in the short-term. However, there are PDEs in place to minimize the risk of soil erosion and reduce the loss of BSC. In the long-term the Proposed Action would reduce the risk of soil erosion and would lead to an increase in BSC. The reduction in the buildup of fuels, especially from increasing numbers of juniper and quantities of duff in forested systems, would reduce the risk of a large-scale, high-intensity wildfire occurring in the project area. It would also lead to an increase in herbaceous and shrub cover on the ground. All of this would reduce the risk of soil erosion. The opening of the stands and removal of the duff would also increase resources and opportunities for BSC establishment where that opportunity for establishment had been lost.

Special Status Species – Fauna: There are no known Threatened or Endangered species inhabiting or using the SES Project Area. If such species are discovered PDEs are in place to protect them. If they are discovered in the project area mitigating measures ranging from timing restrictions to complete avoidance would be implemented to avoid any adverse effects.

The propose action would benefit special status species that inhabit the project area or that are expected to occur within the project area. These species include: redband trout, greater sage-grouse, white-headed woodpeckers, Lewis' woodpeckers, and several species of bats.

Generally, redband trout in the project area are not expected to be affected by disturbances to habitat resulting from project activities. Ground disturbance in the uplands would be located sufficient distances from stream channels to avoid introduction of fine sediments. The proposed treatments should promote a healthier riparian community along with more natural patterns and processes which should lead to the restoration of more complex, productive aquatic habitats. Overall, the redband trout would benefit from the Proposed Action.

The Proposed Action is in compliance with the Oregon Department of Fish and Wildlife's *Greater Sage-Grouse Conservation Strategy Assessment and Strategy for Oregon (2011),* the Sage-Grouse Monograph (2011) and the United States Fish and Wildlife Service (USFWS) 12-month finding (2010). Greater sage-grouse would

benefit from the Proposed Actions treatments that remove the encroaching juniper and pine trees, which create predatory raptor perches, out of current and historic habitat. Overall, the Proposed Action would maintain existing sage-grouse habitat and restore some of the species historic habitat.

The Proposed Action is expected to benefit the white-headed woodpecker and Lewis' woodpecker. The Proposed Action would protect existing snags, large downed woody debris, and old-growth trees and promote recruitment of large trees which these species depend on, thus promoting long-term habitat availability for these species. The opening of the forest would also benefit these species as they prefer forest with a more open understory and canopy.

Special Status bat species expected to occur in the project area are not expected to be affected in the short-term by the Proposed Action. The Proposed Action would protect existing roost trees as well as maintain a suitable prey base. In the long term Special Status bat species would benefit as the Proposed Action would promote larger trees for roosting.

Transportation/Roads: The proposed treatments would cause disruptions to transportation and damage to the roads. Disruptions to transportation would vary from increase traffic to road closures during prescribed fire activities. All disruptions to transportation would be short-lived ceasing once treatments are completed. PDEs are in place to mitigate any road damage caused by the Proposed Action.

Vegetation: The Proposed Action would promote a healthier more historic vegetative community. The Proposed Action would protect and enhance important plant communities such as riparian areas, aspen stands, mountain mahogany stands, and bitterbrush. It would also restore and enhance mountain big sagebrush and forested communities. Overall, the Proposed Action would promote a healthier more diverse vegetative community.

Visual Resources: The Proposed Action meets management direction outlined in Three Rivers RMP for all Visual Resource Management Classes found within the project area. Visual resources would be affected while treatments are taking place. Upon completion of the project, visual resources and aesthetic character of the project area would be enhanced as regeneration of grasses, forbs, shrubs, and trees takes place and overall health and diversity of the project area improves.

Water Quality, Wetland and Riparian Areas: Reintroducing and mimicking natural processes that have been excluded from riparian zones (e.g., juniper and other conifer removal) would result in a positive vegetation response. Initially, a reduction in stream shade may occur where encroached juniper or pines are removed. However, removing competition from juniper and other conifers in riparian zones should facilitate the recovery of deciduous woody and herbaceous riparian communities to a more historic regime. Overall, treating juniper and encroached pine would improve watershed stability and function by reducing bare soil and sediment inputs, stabilizing banks,

increasing infiltration, and maintaining or restoring proper storage and release of groundwater important for late season flows and temperatures. Water quality would improve with enhanced watershed function where erosion is minimized, sediment inputs are minimized, channel bank stability is reinforced, infiltration rates increase, and potential for groundwater recharge is restored.

Wildlife: Overall there is expected to be an increase in wildlife species diversity as a result of implementing the Proposed Action. Strategically placed juniper cuts, conifer thinning treatments, and prescribed burns within the project area would create a diversity of habitats. Protection and enhancement of mountain mahogany and aspen stands would also benefit deer and elk, as well as many other wildlife species. All of these actions would reduce juniper and pine encroachment, and cause an increase in grasses, forbs, and shrubby browse species. These treatments would increase health, vigor, and palatability of winter forage for both deer and elk.

2. *Degree to which the Proposed Action affects public health and safety.* No aspect of the Proposed Action or No Action Alternative would have an effect on public health and safety.

3. *Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.* There are no known unique characteristics within the project area. If cultural resources are discovered during project implementation, then PDEs will be followed to provide protection of the resources.

4. *The degree to which effects on the quality of the human environment are likely to be highly controversial.* Controversy in this context means disagreement about the nature of the effects, not expressions of opposition to the Proposed Action or preference among the alternatives. No unique or appreciable scientific controversy has been identified regarding the effects of the Proposed Action or No Action Alternative.

5. *Degree to which possible effects on the human environment are highly uncertain or involve unique or unknown risks.* The analysis has not shown there would be any unique or unknown risks to the human environment nor were any identified in the Three Rivers PRMP/FEIS to which this proposal is tiered.

6. *Degree to which the action may establish a precedent for future actions with significant impacts or represents a decision in principle about a future consideration.* This project neither establishes a precedent nor represents a decision in principle about future actions. No long-term commitment of resources causing significant impacts was noted in the EA or RMP.

7. W*hether the action is related to other actions with individually insignificant but cumulatively significant impacts.* The environmental analysis did not reveal any significant cumulative effects beyond those already analyzed in the Three Rivers PRMP/FEIS which encompasses the Silver Creek Area, Emigrant Creek Area, and Silvies Valley Area.

8. *Degree to which the action may adversely affect districts, sites, highways, structures or objects listed in or eligible for listing in the National Register of Historic Places.* There are no known features within the project area listed or eligible for listing in the National Register of Historic Places. However, as part of the Project Design Features identified in the attached EA, the project area would be inventoried for cultural resources prior to implementing the proposed treatments. If sites are discovered that are eligible for listing to the National Register of Historic Places within the area of effect of proposed treatments, then they would be avoided to mitigate potential effects. If avoidance is not a viable mitigation option, other measures such as surface collecting and mapping, testing and full-scale excavation could be used.

9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat.* There are no known threatened or endangered species or their habitat occurring in the SES Project Area boundary or affected by the Proposed Action or No Action Alternative. However, as part of the Project Design Features identified in the attached EA, if threatened or endangered species are discovered at any time within the project area or the area of effect of the treatments, mitigating measures which may include complete avoidance would be implemented.

10. *Whether an action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.* The Proposed Action and No Action Alternative do not threaten to violate any law. The Proposed Action is in compliance with the Three Rivers RMP, which provides direction for the protection of the environment on public lands.

On the basis of the information contained in the EA and all other information available to me, it is my determination that: 1) The implementation of the Proposed Action or No Action Alternative will not have significant environmental impacts beyond those already addressed in the Three Rivers PRMP/FEIS (1991); 2) The Proposed Action and No Action alternative are in conformance with the Three Rivers RMP/ROD (1992); 3) There would be no adverse societal or regional impacts and no adverse impacts to affected interests; and 4) The environmental effects, together with the proposed Project Design Features, against the tests of significance found at 40 CFR 1508.27 do not constitute a major Federal action having a significant effect on the human environment. Therefore, an EIS is not necessary and will not be prepared.

Three Rivers Resource Area Field Manager, Burns

12/18/12
Date