USDI, Bureau of Land Management
Burns District
Three Rivers Field Office
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PRELIMINARY
FINDING OF NO SIGNIFICANT IMPACT

Otis Mountain/Moffet Table Fuels Management Project
Environmental Assessment
OR-06-025-056

INTRODUCTION

An Environmental Assessment (EA) was completed to analyze the effects of utilizing a combination of prescribed fire and fire surrogates to manage accumulations of hazardous fuels on public and privately owned lands and improve the species and structural diversity of rangeland, forest, and forest fringe plant communities.

The Project Area includes portions of the Otis Mountain (#5517), Moffet Table (#5511), Mule Creek (#5315), Newell Field (#5518), Griffin Creek (#5604), and Big Upson Field (#6040) grazing allotments. The Birch Creek (#5516) grazing allotment is entirely within the Project Area. The Project Area is located approximately 4.5 air miles north of Drewsey, Oregon, in T. 18 S., R. 34 E., Sections 23-26, 34-36; T. 18 S., R. 35 E., Sections 19-36; T. 18 S., R. 36 E., Section 31; T. 19 S., R. 34 E., Sections 1-3, 10-12; T. 19 S., R. 35 E., Sections 1-18, 21-27, 36; and T. 19 S., R. 36 E., Sections 18-19, 30-31. Major road access to the project is provided by the Otis Valley Road along the eastern boundary of the Project Area and Forest Service Road 14 on the western boundary. The Project Area covers 22,547 acres of public land and 10,835 acres of privately owned lands within Three Rivers Resource Area.

The need for treatment in the Otis Mountain/Moffet Table area came to light as public and agency personnel raised concerns regarding the risks posed by wildland fire to ranches, homes, and dwellings in the vicinity of Drewsey. The Harney County Community Wildfire Protection Plan recommends that Federal agencies collaborate with private landowners to increase the effectiveness of fuels reduction efforts wherever possible.

Specific purposes include:

- Reduce the horizontal and vertical fuel continuity and loading of pine and juniper forests and woodlands to reduce the chances of a surface fire becoming a crown fire, and a small fire becoming a stand-replacement wildfire.

- Improve the vigor and resiliency of fire-dependent ecological communities to wildfire, insects, disease, and other disturbances. Reintroducing fire into shrublands, grasslands, forestlands, and riparian areas would move stands toward historic plant associations, support greater wildlife species diversity, and enhance watershed function.

- Increase the quality and productivity of forage species available to wildlife and livestock in the Project Area. Bunchgrasses and forbs, important forage for elk, mule deer, antelope, domestic livestock and avian species, have been reduced or are completely absent in plant communities undergoing conversion to juniper woodlands and in closed canopy ponderosa pine forest stands. Key wildlife browse species such as bitterbrush and mountain mahogany are declining under the influence of western juniper expansion.

- Capture the economic value of cut trees as sawlogs and biomass where feasible. This would reduce treatment costs incurred by the agency and supply raw materials and jobs that contribute to community stability.

SUMMARY OF PROPOSED ACTION

1. Between 90 and 100 percent of mountain big sagebrush communities in the latter stages of transition to juniper woodlands would be broadcast burned. Shrubland communities that are in the mid- to late juniper woodland transitional stages would require a mechanical pre-treatment prior to burning. Individual trees would be periodically felled against standing trees and allowed to cure in order to create a ladder that allows ground fire to move into the canopies of standing uncut trees.

2. Approximately 40 to 60 percent of mountain big sagebrush communities in the early – mid-stages of transition to juniper woodland would be broadcast burned. Shrubland communities that are in an early stage of transition to juniper woodland would not require a mechanical treatment prior to the application of a broadcast burn.

3. Approximately 40 to 60 percent of mountain big sagebrush communities in the early – mid-stages of transition to juniper woodland would be cut prior to burning piles or jackpot burning. Pile burning and jackpot burning would be conducted only when saturated or frozen conditions prevent fire spread to adjacent stands of vegetation and minimize soil impacts.

4. Approximately 5,000 acres of ponderosa pine forest and woodlands would be thinned so that canopy closure is reduced to a mean of 30 percent. The thinning prescription would promote or retain the largest and most well-formed ponderosa pine while breaking up horizontal and vertical fuel continuity within the stand. Following thinning, spacing between trees would be variable with clumps of conifers left in place to provide for diversity and meet habitat needs. Fuels generated by thinning activities that are not removed for biomass utilization would be treated by piling and burning, mechanical crushing or whole tree yarding. An underburn would be conducted within 10 years of the thinning treatment to further reduce ground fuels (litter, twigs, branches <3 inches) in the same stands.

5. Between 90 and 100 percent of Wyoming big sagebrush communities that display any level of juniper encroachment would be treated under the proposed action. Juniper cutting followed by jackpot burning and piling and burning would be the primary activities utilized in the Wyoming sagebrush/bunchgrass restoration treatment. Small amounts (less than 100 acres) of the juniper cut and leave activity may be utilized in Wyoming sagebrush treatment areas if it can be applied without creating hazardous fuels. Pile burning and jackpot burning would be conducted only when saturated or frozen conditions prevent fire spread to adjacent stands of vegetation and minimize soil impacts.

6. Between 90 and 100 percent of plant communities dominated by mountain mahogany, bitterbrush, quaking aspen, or other riparian hardwoods that are affected by conifer encroachment would be treated under the proposed action. Conifer cutting, pile burning, and jackpot burning would be the principal tools used under this treatment to reduce encroachment of conifers into stands of mountain mahogany, bitterbrush, or deciduous woody vegetation while maintaining existing plants. Manual cutting of conifers with no follow-up burning may also be occasionally used in such stands. Late season broadcast burning would be applied for the purpose of aspen restoration wherever possible.

7. Approximately 60 to 80 percent of low or stiff sagebrush communities would be cut and jackpot burned under the proposed action. Cutting and jackpot burning would be the primary tools utilized to reduce juniper encroachment on low sagebrush sites that are discrete and can be isolated from broadcast burn treatment units. A juniper cut and leave activity may be applied if it is determined that downed trees would not present a hazardous fuels issue on the site.

8. The proposed action includes project design elements and a monitoring program that would protect or enhance wildlife habitat, protect cultural resources, prevent the spread of noxious weeds, protect air quality, and maintain water quality. Monitoring of the project would extend until the year 2031.

9. Project implementation would be completed within 12 years.

FINDING OF NO SIGNIFICANT IMPACT

The proposed action satisfies resource management goals and objectives outlined in the Three Rivers Resource Management Plan/Final Environmental Impact Statement (RMP/FEIS). The proposed action also meets objectives set forth in the Otis Mountain, Moffet Table, Birch Creek, and Mule Creek Allotment Management Plans. The proposed action is likewise in conformance with State, Tribal, and local laws, regulations, and land use plans.

Based on the analysis of potential environmental impacts contained in the EA and all other information, I have determined that the proposed action and alternatives analyzed do not constitute a major Federal action that would significantly impact the quality of the human environment. Therefore, an EIS is not necessary and will not be prepared.

Rationale:

This determination is based on the following: The following critical elements of the human environment have been analyzed in the Three Rivers RMP/FEIS and are not known to be present in the planning area or affected in any way by implementation of the proposed action: Wilderness, Wilderness Study Areas, Areas of Critical Environmental Concern, Wild and Scenic Rivers, American Indian Religious Concerns, Paleontology, Flood Plains, Prime or Unique Farmlands, and Hazardous Materials.

The following critical element is not discussed in the Three Rivers RMP/FEIS, but is either not known to be present in the Project Area or affected by enacting either alternative: Environmental Justice.

The following critical elements are present and were analyzed in the document: Air quality, water quality, wetlands and riparian, migratory birds, Special Status Species (flora, fauna, fisheries), noxious weeds, and cultural heritage. Noncritical elements which were present and were analyzed in the document include soils, vegetation, wildlife, livestock grazing management, recreation, visual resources, socioeconomics, fire management, forestry and woodlands, and lands, realty, and roads.

Impacts to these resources are considered nonsignificant (based on the definition of significance in 40 CFR 1508.27) for the following reasons:

Air Quality

The air quality currently meets or exceeds air quality standards outlined by the Oregon Department of Environmental Quality. The proposed action would have only short-term impacts on air quality. The Otis Mountain/Moffet Table Burn Plan would include a smoke management section that would completely avoid or minimize impairment of visibility and air quality in the Strawberry Mountain Wilderness Class 1 airshed and the communities of Drewsey and Buchanan. In general, prescribed fires are planned and implemented when atmospheric stability and wind conditions promote smoke dispersion into the atmosphere and/or transport out of the area. In addition they are planned when diurnal wind conditions limit the amount of smoke pooling in canyons and valleys.

Water Quality/Wetlands and Riparian

The proposed action would facilitate the recovery of a riparian hardwood community and stimulate regeneration of some riparian species that have become decadent due to fire exclusion (e.g., aspen). Restoration of riparian plant communities typically improves water quality by increasing the sediment storage capacity of riparian zones, reducing turbidity, and reducing water temperature.

Removing juniper and overstocked pine that are currently outcompeting riparian vegetation will help reestablish the riparian communities throughout the Project Area. By removing juniper more water could be captured, retained, and released at a slower rate due to the increased root holding capacity of riparian vegetation. Maintaining moisture within the riparian zones longer will increase riparian width and function.

Migratory Birds

Direct impacts to migratory birds would be minimized through project design elements. Snag and decadent wood availability would increase. In the long term as the trees get larger, migratory birds such as cavity nesters that prefer large trees would have improved habitat quality. Species which utilize deciduous habitat would benefit with the regeneration of aspen and other riparian vegetation. There would be a reduction in habitat quality for birds that prefer dense understories and those that forage and nest in the small age class conifer trees. The overall net effect of the proposed action would likely be an increase in habitat diversity and an increase in avian species diversity.

Threatened, Endangered, and Special Status Species – Flora

There would be no detrimental effect on Special Status flora provided that the established project design elements are observed. Special Status Species that are susceptible to substantial damage from burning would be avoided during prescribed fire treatments. Special Status Species sites would be avoided by mechanical treatments if they may be intolerant of ground surface disturbances. Treatments included in the proposed action may benefit numerous species of Special Status plants.

Special Status Fauna

There would be no known effects to Threatened or Endangered wildlife species under the proposed action. Over time, mountain big sagebrush and low sagebrush habitat that is currently unsuitable for sage-grouse due to juniper encroachment would become functional habitat under the proposed action. Habitat values near leks would be maintained through a project design element. The proposed action is in compliance with the Greater Sage-Grouse Conservation Assessment and Strategy for Oregon: A Plan to Maintain and Enhance Populations and Habitat (2005).

There would be no known direct effects to northern goshawks as there are no known nest sites within the Project Area. The proposed action is likely to benefit the flammulated owl, northern pygmy owl, pileated woodpecker, Lewis's woodpecker, Williamson's sapsucker, white-headed woodpecker, and pygmy nuthatch.

Special Status Fisheries

There would be no detrimental effect on bull trout habitat provided that the established project design elements are observed. Project design elements would minimize sedimentation of Bluebucket Creek by increasing downed wood recruitment where possible and limiting activities on the flood plain. Accelerating the recovery of riparian hardwood species and reducing the chances of a stand replacement fire would ensure stable upslope soil conditions and a continual supply of large woody debris to the stream channel to maintain diverse and complex fish habitats.

Noxious Weeds

There would most likely be no increase in populations of noxious weeds, or establishment of new populations, provided that appropriate project design elements are observed and the treatments are monitored as described in the project monitoring plan. Follow-up treatment on noxious weeds identified during project monitoring would be performed as described in the Burns District Noxious Weed Program Management EA OR-020-98-05.

Cultural Heritage

There would be no detrimental effect on cultural resources provided that the established project design elements are observed. Mechanical and prescribed fire treatments that could diminish the data potential of archaeological sites would not be utilized within site boundaries.

Conversely, fuels reductions treatments would enhance the long-term stability of prehistoric and historic era archaeological properties. As the likelihood of a large-scale, high severity wildfire is reduced across the landscape, risks associated with excessive heating of surface obsidian, combustion of built wooden features, and accelerated erosion of site deposits, would likewise decrease.

American Indian Traditional Practices

The Otis Mountain/Moffet Table planning area is not known to be used by American Indian Tribes for traditional uses or religious practices. The Burns Paiute Tribe was consulted regarding the proposed action and no concerns were identified.

In the long term, implementation of the proposed action may increase the distribution and density of riparian vegetation stands that are important for the practice of Burns Paiute tribal traditions.

Soils

Minor increases in soil erosion could occur shortly after completion of a broadcast burn. Increases in surface erosion would be short lived and would likely decrease soon thereafter as understory vegetation regenerates.

The risk of surface erosion associated with unvegetated bare ground in juniper woodlands would be reduced as the density and diversity of understory shrubs and grasses increases.

Vegetation

Removal of overstory conifers by cutting could make more resources (sunlight, water, nitrogen) available to understory shrubs, grasses, and forbs. Following a lag period of approximately 5 years, a rapid increase in understory cover and density can be expected. Removing a western juniper overstory with mechanized treatments can result in an understory species density that is 10 to 20 times greater than that of untreated areas within 5 years.

Wildlife

Overall, there is likely to be an increase in wildlife species diversity as a result of implementing the proposed action. Although species utilizing more open habitats would be favored as a result of the proposed action, a project design element is in place to maintain 10 percent of expansion juniper for big game cover. Species favoring juniper woodlands and dense conifer stands would be negatively impacted by the proposed action. Foraging opportunities for big game and other herbivores would increase as understory grasses, forbs, and shrubs reestablish. The proposed action will increase the health, vigor, and palatability of winter forage for both deer and elk.

Fisheries

Effects of the proposed action on fisheries would be the same as those discussed in the Special Status Fisheries section.

Recreation

There may be brief minimal impacts to recreational activities in the vicinity of the planning area. Smoke and noise generated during project implementation could disrupt recreational activities in the spring or fall seasons. This effect may last for a period of 1 to 3 weeks each year over the life of the project.

In the long term, recreational activities related to big game hunting and wildlife viewing would be enhanced as habitat function improves over time.

Visual Resources

The planning area falls entirely within the Visual Resource Management Class IV. Prescribed fire treatments would produce segments of the landscape where the dominant color is black for a year or longer. Juniper skeletons may remain standing and blackened for a period of 20+ years. In areas where prescribed fire is utilized to kill or thin small pine there would be pockets of dead trees. Mechanical treatments may leave piles of woody debris visible from two-track roads for a period of up to 2 years.

In the long term, the aesthetic character of the planning area will improve as views and scenic diversity increase.

Livestock Grazing Management

Under the proposed action, a minimum of 2 years of growing season rest from grazing would be necessary following broadcast burn treatments in the Moffet Table (#5511), Mule Creek (#5515), Birch Creek (#5516), and Otis Mountain (#5517) grazing allotments. Alternative forage may be made available to permittees when a pasture is receiving mandatory rest following a prescribed fire treatment.

In the long term, the quantity and quality of forage would improve within the pastures treated with prescribed fire.

Economic and Social

Under the proposed action, it is estimated that 14 to 15 forestry or prescribed fire jobs would be created in the Harney-Grant County area over a period of 10 years. Revenue received by the agency for forest products or vegetation removed from the Project Area would reduce the cost of project implementation to the government and taxpayers.

The value of livestock grazed in the Project Area would increase as forage productivity improves on public and privately owned lands in the Project Area. Highly productive rangelands in advanced stages of transition to juniper woodland in the Project Area could realize an increase of forage available to livestock that is as much as four times the current production level given typical precipitation patterns.

Fire Management

The proposed action would lower the risk of a large-scale crown fire occurring in the vicinity of ranches, homes, and dwellings in the planning area. Overstory thinning treatments would reduce ladder fuels and the risk of fire moving from the surface to the crowns. Application of prescribed fire to juniper woodlands would reduce the risk of a high severity wildland fire event on rangelands. Future wildfires in these stands would likely have lower levels of fireline intensity and not present the high levels of risk associated with wildfires that occur in densely stocked stands.

Forestry and Woodlands

The stocking of invaded western juniper within ponderosa pine woodlands would be reduced to be more in line with historical levels. Sapling and pole sized ponderosa pine stocking would be reduced substantially. Remaining large pine would have increased vigor and be more able to withstand natural disturbance processes such as fire and insect attack. The proposed action would also move the character of ponderosa pine forest toward historic conditions. The overstory would continue to consist of large diameter ponderosa pines. Overall stand character would be more open and park-like with clumps of big trees and scattered understory reproduction. Both the overstory and the trees that remain in the understory would grow faster and more vigorously and result in better overall stand health. Duff depths would be reduced and with more sunlight and moisture, the ground cover density would increase.

Lands, Realty, and Roads

The proposed action would substantially reduce the risk of intense wildfires occurring with extreme rates of spread on the planning area, reducing the risk of fire entering private, or National Forest lands by way of land administered by the Bureau of Land Management.

All roads degraded by project implementation would be rehabilitated at the close of commercial thinning and prescribed fire projects.