

FINDING OF NO SIGNIFICANT IMPACT

Environmental Assessment Number: OR-054-01-035
Title of Action: **Paulina Aspen/Forest Management Project**
Location of Proposed Project: T15S, R22E, Sec. 24
Bureau of Land Management Office: Prineville
Resource Area: Central Oregon

Environmental Assessment No. OR-054-01-035 analyzes four alternatives for managing aspen and ponderosa pine stands in the Ochoco Mountains of the BLM Prineville District. Key issues identified for the area and addressed in the analysis include: 1) decline of aspen stands, 2) reduction of old structure forest habitat, and, 3) fire exclusion resulting in a decline in bio-diversity and increased potential for large wildfire.

Alternative 1 (Proposed Action) would be a combination treatment of commercial and non-commercial thinning of ponderosa pine and juniper on approximately 80 acres, cutting of up to 20 acres of aspen, prescribed underburning of up to 106 acres, and fencing of up to 40 acres of aspen stands. Alternative 2 would emphasize non-commercial thinning of ponderosa pine and juniper on the same acreage. The non-commercial thinning dbh limit would be nine inches on pine and 18 inches on juniper. Machine piling and scattering of heavy fuel concentrations would be required on approximately 24 acres. Alternative 3 would emphasize a more aggressive prescribed underburning approach as the primary treatment. Two to three burning entries would occur over a period of three to five years using a phase-in approach. Machine fireline construction would be required to subdivide units for a variety of fuel conditions and prescriptions. Alternative 4 is the “No Action” alternative. This alternative would continue ongoing programs such as grazing and fire suppression but would not provide for pro-active management at this time.

Based on an analysis of potential environmental impacts described in the Environmental Assessment, and considering implementation of mitigation measures described in Appendix A, I have determined that none of the alternatives constitute a major federal action; that impacts to the human environment are not expected to be significant; and that an Environmental Impact Statement is therefore not required.

My reasons for this determination are:

1. The project is in conformance with the approved Brothers/La Pine Resource Management Plan (see page reference and guideline citations in EA - page 3).
2. There would be no significant irreversible or irretrievable commitments of resources. Ground disturbance would be mitigated. The project would not remove or affect any non-renewable resources.
3. There would be no significant cumulative adverse effects on the environment. The project is

- designed, in part, to correct cumulative impacts from human influences over the last 130 years.
4. There would be no significant impacts to water quality. Slopes are 0-25%. There are no perennial streams in the project area.
 5. There would be no significant impacts to Threatened, Endangered or Sensitive plants or animals. Habitat for suspected special status species inhabitants would be improved with burning and thinning treatments.
 6. There would be no adverse effects on wetlands or floodplains. The burning and thinning of aspen sites would provide positive long-term benefits to vegetation growing in the wet seep areas.
 7. Cultural resources would be protected or avoided during project implementation (see Mitigation Measures in Appendix A).

/s/ Christina M. Welch
Christina M. Welch
Field Manager, Central Oregon Resource Area

04/30/01
Date

DECISION RECORD

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I. Decision

After careful consideration of the issues, concerns, and results of the Paulina Aspen/Forest Management Project environmental analysis documented in EA No. OR-054-01-035, it is my decision to adopt Alternative 1 (Proposed Action). I intend to begin implementation during the summer of 2001. The project is located in T15S, R22E, Sec. 24, Willamette Meridian, Crook County, Oregon.

The proposed action will restore and protect quaking aspen (*Populus tremuloides*) stands and help reverse a declining trend for this important vegetative community on the BLM Prineville District. The action is also designed to improve overall wildlife habitat diversity and long-term forest health, including the maintenance and enhancement of old forest structure. The reduction of ground and ladder fuels for long-term stand protection against large-scale wildfire is also an integral part of the project. Specific project objectives are:

- Restore and maintain long-term ecological function for increased habitat diversity and resiliency to insects, disease and wildfire.
- Protect existing aspen communities and restore the previous dominance of aspen in the project area.
- Maintain and re-create old-structure ponderosa pine forest habitat.
- Reduce fuel loading to minimize potential for large-scale stand-replacement wildfire.

The project will include a combination of the following treatments: commercial and non-commercial thinning of ponderosa pine on approximately 80 acres, non-commercial thinning of juniper, cutting/girdling of up to 20 acres of aspen, prescribed underburning of up to 106 acres, and fencing of up to 40 acres of aspen stands. Treatments will be implemented sequentially, as determined necessary, over a period of three to five years. Pine and juniper thinning will be implemented the first year followed by underburning of only the pine stands in the second year. Results of thinning and burning treatments will be monitored in the aspen stands for the first two years. Subsequent treatments in the next two to three years could include one or more of the following: underburning in the aspen stands, cutting or girdling of up to 50 percent of overstory aspen, and constructing big-game and cattle enclosure fences around some or all aspen stands (about 40 acres). Trial cutting and/or burning of portions of aspen stands with different prescriptions and evaluating results will be an option. Root severing around overstory trees, with a hand operated ditcher or other hand operated tool, instead of

cutting/girdling will also be an option considered. Each subsequent treatment will be prescribed based on aspen response from the previous treatment. If monitoring determines that project objectives have been achieved in the aspen stands with thinning and prescribed fire, then additional burning, cutting of aspen stems or roots, and fencing may not be necessary.

The commercial treatment will focus on stocking control in the understory of pine stands and removing pine and juniper competition in the aspen stands. Trees will be selectively marked with emphasis on removing smaller (less than 18 inches dbh), younger (less than 120 years old) suppressed and intermediate trees and retaining larger, dominant trees. Target basal area per acre will be in the 70 to 90 square feet range, although it will vary based on stand condition, structure, and presence/absence of aspen and large ponderosa pine. For example, where aspen or large ponderosa pine are present, or where there is heavy infestation of dwarf mistletoe, thinning will be to a wider spacing than in a healthy, denser second-growth pine stand. This treatment will remove up to 250 mbf (500 ccf). Up to 50 trees greater than 12 inches dbh will be girdled rather than cut to provide additional hard snag habitat. The operation will be accomplished by a low ground pressure harvester/forwarder system or with conventional felling/skidding and designated skid trails.

Non-commercial thinning will cut suppressed, diseased, and competing pine in the size class of two feet in height to eight inches diameter at breast height (dbh). Resulting leave tree density in thinned areas will vary according to stand type and condition but generally will range between 50 and 120 trees per acre (ie. larger, older trees will occupy more space per tree than smaller, younger trees). Non-commercial thinning will be accomplished with chainsaw. Some patches of dense reproduction will be left untreated for hiding cover. Juniper 18 inches in diameter and greater, and others less than 18 inches with old-tree characteristics (gnarled trunk and branches, decay and cavities, rounded or flat-topped crown, abundant lichen growth), will be retained for habitat diversity.

The prescribed underburning treatment in the pine stands will occur in the spring or fall after the thinning treatment. Monitoring results will determine whether or not a second burning entry will be needed in the pine stands or to further stimulate root suckering in the aspen stands. Some limited hand fireline construction may be necessary to partition the project area into smaller, more manageable units for different burning prescriptions based on stand type, density, and specific objectives.

Cutting and burning treatments will be monitored for at least three years after implementation for aspen response and ungulate browsing. If aspen response is meeting objectives at that point, fencing will not be installed. If ungulate browsing was determined to be impeding aspen response, then fencing will be installed. Fence enclosures, if necessary, will be temporary and constructed of re-usable materials. Fencing will likely be constructed of eight foot high plastic mesh supported by eight foot steel fence posts and heavy gauge wire. The bottom of the fence will be anchored with stakes or weighed down with rocks and large woody debris. This type of fence has been successful for excluding deer, elk and cattle on similar projects in the past. After aspen reproduction is established and mostly beyond browse range (at approximately six to eight feet tall), fencing will be removed.

Mitigation Measures

This section describes mitigation and monitoring measures and project details designed to limit adverse environmental impacts or enhance project effectiveness.

- Operations utilizing equipment will be restricted to the period between July 15 and September 30. In addition, during extreme precipitation events, some operations may be suspended to limit impacts to roads and soils.
- Existing roads, skid trails and landings will be used. In thinning treatment areas without adequate existing skid trails or landings, additional skid trails and landings will be designated. No additional access roads will be constructed.
- Equipment will not be allowed to enter or cross wet seep areas. Small wet sites with aspen within units will either be excluded or “line pulling” will be required where thinning is to occur.
- Thinning slash will be scattered on-site to disperse fuel concentrations, protect soils, retain organic matter, promote nutrient cycling, provide cover for small wildlife, and protect emerging aspen, grasses and forbs.
- Limited salvage of small tree thinning slash (for firewood and fence posts) may occur where easily accessible near existing roads to help reduce fuel loading and need for piling.
- All existing snags eight inches dbh and larger will not be cut or disturbed.
- Up to 50 larger ponderosa pine (12 to 18 inches dbh) will be girdled that; are needed in snag deficient areas (less than two snags per acre greater than 12 inches dbh), are needed where existing snags are in advanced stages of decay, are severely infected with dwarf mistletoe where it may spread, or, are in close proximity to aspen or other sensitive areas where conifers are competing.
- Large (12 inches or greater) down logs will be retained. Measures, such as timing, avoidance, slash pull-back, and hand firelines will be used to protect down log habitat from destruction/disturbance from prescribed fire and logging operations.
- Leave areas for wildlife cover and connectivity will be retained between underburning and thinning treatment units.
- Prescribed burning will be conducted during fuel and weather conditions which will allow for a variable consumption and spread pattern for a high degree of diversity. After burning, it is expected that approximately 20 to 40 percent of the burn area will be left in a mosaic pattern of unburned islands and fingers.
- Monitoring will be done before and after burning to evaluate effects on down logs, snags and

green trees. Prescriptions and protection measures will be modified, if necessary, to limit losses.

- Prescriptions for burning will include weather conditions that will allow rapid dispersal of smoke away from populated areas. Prescribed burns will be in compliance with the Oregon State Smoke Management Plan. Nearby ranches will be contacted prior to ignition.
- Smoke management associated with any burning will consider the direction and timing of the smoke in relation to the bald eagle nests located four miles southwest of the project area and seven miles southeast of the project area.
- Malformed green trees, such as those with mistletoe induced “witch’s brooms,” snow, ice, wind and lightning breakage, porcupine girdled tops, and those with other disfigured branches and tops, will be left to provide additional nesting and perching habitat diversity for birds and small mammals. Large leaf trees with heavy mistletoe infections (“Hawksworth” Rating 5-6) will be isolated with a 20 to 30 foot thin spacing from adjacent healthy trees.
- Any post-treatment slash piles constructed will be left unburned to provide denning and cover habitat for small mammals, ground nesting birds and reptiles.
- Primary skid trails and firelines will be rehabilitated following use by covering with slash, rocks, and large woody debris.
- Upon completion of project activities, approximately 0.75 mile of existing road and public-created tributary wheel tracks will be closed and rehabilitated. The closure technique will be to cover/disguise roads with rocks, slash, and large woody debris. Waterbars or other drainage features will be constructed or reconstructed on portions of the access road where slope exceeds seven percent.
- Exclosure fences will be installed as needed around aspen stands to protect aspen suckers from wildlife and livestock. Exclosures will be monitored and maintained annually for at least three years. When aspen regeneration reaches sufficient density and height to withstand ungulate browsing pressure, fences will be removed.
- Additional forage production occurring as a result of thinning will be made available to wildlife (will not be allocated to livestock).
- Weeds, such as houndstongue and thistles, will be monitored and managed in accordance with the Prineville District Integrated Weed Management Environmental Assessment OR-053-3-062 (March, 1994).
- At any time during operations, if a Threatened, Endangered or other special status plant or animal species is located or identified in or adjacent to the project area, the operation will be

suspended and measures will be taken as directed by a Wildlife Biologist or Botanist to avoid or protect the habitat as appropriate (Sec. 41 Special provisions, (D) Environmental Protection, Clause 1 and 2). Additional Goshawk surveys will be completed prior to any activities beginning and modifications will be made to the contract if a goshawk nest is located within or in close proximity to the project area. Modifications will be made if it is determined the project area is critical to the success of this reproductive home range.

- A cultural resource inventory did not identify any sites in the project area. Any human remains or cultural and/or paleontological resources discovered during operations will be immediately reported to the area Archaeologist. All operations in the vicinity of such discovery will be suspended pending recommendations by the Archaeologist.

II. Compliance and Monitoring

Contract administration and all other project work supervision will provide regular compliance checks and quality control monitoring during project implementation for accomplishment of project objectives. Contract requirements, including mitigation measures and special design features for resource protection will be monitored to ensure proper implementation and effectiveness. Monitoring results gathered from this project will be used to design or adjust requirements for future similar projects to ensure desired objectives are being met. Adaptive management principles will be used in for this project and in future planning/analysis efforts in other areas.

The BLM Wildlife Biologist, Forester, Fuels Specialist, Hydrologist, and Rangeland Management Specialist will have the primary responsibility for on-the-ground monitoring efforts. Other BLM resource specialists and other agencies will participate as necessary.

Specific monitoring efforts will include, but not be limited to, contract compliance inspections, internal and external field trips, photo points, weed inventory/assessments, prescribed fire prescription monitoring, post-burn evaluations, aspen response and animal browse evaluations, and exclosure fence inspections/maintenance. Monitoring field trip results, conclusions, and follow-up treatment recommendations will be recorded in writing and added to the project file.

III. Rationale for Decision

Alternative 1 was chosen because it best addresses the Purpose and Need and the issues identified during the analysis process by:

- Protecting existing aspen communities and restoring the previous dominance of aspen in the project area by removing competing juniper and pine. Healthy aspen communities provide valuable habitat for many species of birds, amphibians, reptiles, and mammals.
- Restoring and maintaining long-term ecological function for increased habitat diversity and resiliency to insects, disease and wildfire by re-introducing or mimicking natural processes.

- Maintaining and re-creating old-structure ponderosa pine forest habitat by reducing stand densities and releasing healthy trees for accelerated growth to large tree status.
- Reducing green and dead fuel loading to limit the size, extent, and associated impacts of large scale wildfires.
- Limiting off-road vehicle access in the area to control soil erosion and minimize disturbance to wildlife.

This action is in accordance with the Brothers/LaPine Resource Management Plan (July, 1989).

IV. Alternatives Considered

Three other alternatives were considered in this analysis but were not selected because they, either did not fully satisfy the purpose and need, or did not address the issues as well as Alternative 1. Alternative 2 would have emphasized non-commercial thinning of up to nine inch dbh ponderosa pine and juniper on 80 acres as the primary treatment to achieve project objectives. Additional machine piling and/or scattering would disperse fuels concentrations. No prescribed fire would occur. Alternative 3 would have implemented a more aggressive prescribed underburning approach as the primary treatment to achieve objectives. Two to three burning entries would have occurred over a period of three to five years using a phase-in approach. Machine fireline construction would have been required to achieve increased control of more volatile fuels conditions and during more challenging ignition prescriptions. Alternative 3 was the “No Action” alternative. This alternative would have continued ongoing programs such as grazing and fire suppression but would not have provided for any pro-active management at this time.

/s/ Christina M. Welch
Christina M. Welch
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04/30/01
Date