



United States Department of the Interior
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT OFFICE
ASHLAND RESOURCE AREA
3040 Biddle Road
Medford, Oregon 97504



FINDING OF NO SIGNIFICANT IMPACT (FONSI)

For the

PILOT JOE DEMONSTRATION PROJECT

(DOI-BLM-OR-M060-2011-0009-EA)

INTRODUCTION

The Medford District Bureau of Land Management, Ashland Resource Area (BLM) analyzed forest management activities, fuels reduction and maintenance, and transportation maintenance, including road decommissioning, on approximately 889 acres of BLM-administered lands in the *Pilot Joe Demonstration Project Environmental Assessment (EA)*. The project is located within the central portion of the Middle Applegate River Watershed in the Humbug Creek sub-watershed (includes Chapman and Keeler Creek drainages).

The Public Land Survey System (PLSS) description for the Pilot Joe Project is: T. 38 S., R. 3 W., Sections 29, 31, and 32; T. 38 S., R. 4 W., Sections 22, 25-27, 34, and 35; T. 39 S., R. 3 W., Sections 5-7; and T. 39 S., R. 4 W., Sections 1, 2, 11, and 12, Willamette Meridian, Jackson County, OR.

The EA analyzed the potential impacts of treating “Dry Forest” vegetation using the following forest management methods: commercial thinning, understory reduction, and density management. The forest management will be achieved by implementing a series of forest prescriptions that define the size of material, the species and the conditions that guide selection of trees to be removed or retained. Each prescription is tailored to a specific forest type based on plant associations. The ecosystem restoration principles developed by Drs. Jerry Franklin and Norm Johnson guided the development of the forest prescriptions. The intent of these principles is to move the current conditions toward desired forest conditions that include the maintenance of older trees, restoration of characteristic structure and composition, and increased heterogeneity.

Proposed treatments were divided into two categories, commercial (299 acres) and non-commercial treatments (590 acres). Commercial refers to treatment areas where the trees to be removed are of sufficient size to be sold as saw logs to produce dimensional lumber or plywood veneer. Non-commercial refers to treatment stands where the material to be removed is smaller than eight (8) inches DBH (diameter at breast height). Commercial harvest methods included in the analysis were skyline (cable) yarding (216 acres) and tractor yarding (83 acres).

The EA also analyzed 1) the potential impacts of decommissioning a short section (0.4 miles) of existing road, 2) road maintenance, including renovation, of existing roads in the project area, and 3) fuel hazard reduction and maintenance using hand and prescribed fire methods.

Based on the context and intensity of the impacts analyzed in the EA (p. 13-61), I have determined that Alternative 2, the selected alternative, with the associated project design features from the Pilot Joe Demonstration Project, is not a major Federal action that would significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. I considered the following criteria, suggested by CEQ (40 CFR 1508.27), for evaluating intensity or severity of the impact of the Pilot Joe Demonstration Project.

The Pilot Joe Demonstration Project will:

1. Not result in significant beneficial or adverse effects.

The Pilot Joe Demonstration Project EA documented the site-specific analysis of effects to the environment. Required project design features are an integral part of this forest management project, ensuring that any potential for adverse effects on resources are avoided or minimized to the extent possible. Based on the analysis documented in the EA (Chapter 3) there will be no significant adverse or beneficial effects as a result of implementing the Pilot Joe Demonstration Project.

- a) Soil productivity would be protected by requiring designated skid trails and using existing skid trails when possible, limiting the compacted area to 12 percent of the harvested area (EA, 2-13, 3-43); consistent with the Medford District RMP guidance (1995 RMP, Appendix D and 2008 RMP, C-23). Potential long-term positive effects to soil productivity would be realized by thinning and prescribed fire (EA, 3-43).
- b) Soil disturbance would not result in a significant amount of soil leaving the site due to the application of required Project Design Features (EA, 2-13 to 2-14); erosion rates would return to near pre-harvest levels within 5 years (EA, 3-43).
- c) Peak stream flows are not expected to be affected by soil compaction resulting from this project because: 1) road density would decrease in the project area as a result of the proposed road decommissioning and no new road construction is proposed; 2) the average canopy closure on BLM-administered lands would remain well above the natural canopy cover of 30% (EA p. 3-54), which in turn eliminates any increased risk of peak flows associated with rain-on-snow events.
- d) Alternative 2 would have no direct or indirect effects on summer stream temperature for any stream in the project area as shade on perennial streams would be maintained with all vegetation treatments and proposed road work (EA, 3-57).
- e) No direct or indirect effects on sedimentation would occur as a result of vegetation treatments because: 1) no commercial harvest is planned within Riparian Reserves; 2) Project Design Features such as no yarding in Riparian Reserves, waterbarring tractor skid trails, and avoiding tractor skid trails on slopes over 35 percent, would prevent surface flow from traveling very far down skid trails or reaching stream channels; 3) manual non-commercial treatments would not involve any ground disturbance and therefore would not have any effect on erosion rates or sedimentation in the project area; and 4) sediment increases from prescribed fire would be very slight given the low intensity burn and BMPs that stipulate no ignition or fire lines in Riparian Reserves. (EA, 3-54 and 3-57).
- f) Any increase in sedimentation due to soil disturbance from the proposed road decommissioning would be minimal with no discernible effect on the Applegate River, and sediment sources would decrease over the long term with the reduction of road miles in Riparian Reserves (EA, 3-57).

- g) No measurable changes in the aquatic habitat conditions are anticipated to result from implementation of the proposed action alternative as any sediment increases would be minor and undetectable relative to existing sediment levels. Upland work, including timber harvest and follow up fuels treatments would have no effect on fine sediment levels, due to the filtering action of Riparian Reserve buffers, extensive PDFs designed to prevent overland sediment movement, and normal BMPs. The proposed road decommissioning is not expected to contribute any sediment to Chapman Creek as no in-stream work would be required (EA, 3-66).
- h) The magnitude of the dust/sediment inputs would be small because of dry season haul restrictions, dust abatement PDFs, and filtering effects of riparian vegetation. It is not anticipated that the amount of sediment input into aquatic habitats in any of the stream channels within this project area resulting from dust would be discernable above contributions which occur chronically. As such, the amount of dust (sediment) to reach and settle out in any one pool would be insufficient to adversely modify aquatic habitats (EA, 3-65).
- i) Riparian Reserves (RRs) in the project area are in relatively good condition and are capable of providing both maximum shade and inputs of large wood. Log haul would not change the existing condition of the RRs. Road decommissioning would improve a small stretch of Riparian Reserve along Chapman Creek by ripping the existing road, seeding and mulching. Over the long term, trees would grow in the road prism, eventually providing shade and large wood (EA, 3-68).
- j) The combination of all treatments proposed under Alternative 2 would treat only 18% of the planning area. Because of the relatively small foot-print of the project, and because of the dispersed distribution of proposed treatments across the watershed, no substantial negative effects are anticipated to any Bureau Sensitive or Survey and Manage wildlife species (EA, 3-88 and 3-89).
- k) Impacts to Endangered Species Act (ESA) listed threatened and endangered species are discussed in CEQ consideration number 9.
- l) No-treatment buffers would protect rare plant populations from timber harvest, silvicultural or fuels treatments, and post-harvest slash treatments (EA, 3-99). Late Successional Emphasis Area's and the incorporation of "skips" would provide refugia and sources for mycelia and mycorrhizal fungi that could spread to treated areas after harvest and burning activities thus restoring fungal communities (EA, 3-101).
- m) While ground disturbance associated with this project would create site conditions initially more favorable for noxious weeds and introduced plants, with the implementation of project design features, weed spread would be minimized and roadside weed populations would be controlled or reduced (EA, 3-106).
- n) Potential impacts from unauthorized OHV use would be minimal because: incorporation of project design features requiring skid trails to be blocked with approved barricades where they intersect haul roads, old skid roads would not be treated near the intersections with system roads (EA, 2-14), the majority of the project area is very steep which limits some of the OHV use, and no new roads would be constructed (EA, 3-49, 3-107).
- o) No long-term impacts to recreation are expected to occur. It is anticipated that only short-term negative impacts to the dispersed recreational user within the project planning area would occur during actual harvest or fuels management operations, when certain roads may be blocked by logging equipment or active falling operations. Smoke from prescribed burning may adversely

affect recreational use of the Middle Applegate watershed, but the effects would be short term, and typically overnight, when residual smoke may subside into the valleys (EA, 3-108).

- p) The effects on the visual resources within the project area are expected to be within the range as described under VRM Class III guidelines, that activities may attract attention but would not dominate the view of the casual observer (EA, 3-108).
- q) The total carbon dioxide emitted during the 20 year analysis periods is considered negligible in the context of total U.S. carbon dioxide emissions of 6 billion metric tons (DOE, 2009) (EA, 3-113).
 - o Variable Density Thinning in this alternative would result in the emission of about 3.7 tonnes of carbon per acre or about 13 tonnes of carbon dioxide per acre during the 20 year analysis period. Thinning 299 acres would result in the emission of 3887 tonnes of carbon dioxide. The carbon dioxide emission represents .0000006 percent of current U.S. emissions (EA, 3-113).
 - o Density Management in this alternative would result in the emission of about 3.1 tonnes of carbon per acre or about 5 tonnes of carbon dioxide per acre during the 20 year analysis period. Thinning 590 acres would result in the emission of 2950 tonnes of carbon dioxide. The carbon dioxide emission represents .0000005 percent of current U.S. emissions (EA, 3-113).
- r) Continued forest growth following Variable Density Thinning would increase carbon storage approximately 582 cubic feet per acre per decade (Hann, 2003) which is equal to about 7.1 tonnes of stored carbon per acre per decade or 0.71 tonnes per year. Within 6 years after thinning, the carbon emission level (3.7 tonnes/acre) for the 20 year analysis period would be offset by carbon storage in tree growth. Total live tree carbon would equal pre-treatment levels after about 38 years of tree growth (EA, 3-114).
- s) Continued forest growth following Density Management would increase carbon storage approximately 605 cubic feet per acre per decade (Hann, 2003) which is equal to about 7.4 tonnes of stored carbon per acre per decade or 0.74 tonnes per year. Within 5 years after thinning, the carbon emission level (3.1 tonnes/acre) for the 20 year analysis period would be offset by carbon storage in tree growth. Total live tree carbon would equal pre-treatment levels after about 12 years of tree growth.

2. Not result in significant impacts on public health or safety.

No aspects of the project have been identified as having the potential to significantly and adversely impact public health or safety. Appropriate signs would be used to mitigate any safety risks associated with project activities (EA, 3-108).

The fuel and fire hazard reduction elements of the project are likely to have a beneficial impact on public health and safety. The fire resilience for the planning area as a whole is improved due to the overall reduction in fire hazard within units treated (EA, 3-29 to 3-35). Prescribed burning operations would follow all requirements of the Oregon Smoke Management Plan and the Department of Environmental Quality Air Quality and Visibility Protection Program (EA, 3-34).

3. *Have no significant, adverse effects on unique characteristics of the geographic area.*

The Pilot Joe Demonstration Project will not impact any wilderness areas, wilderness study areas, prime farmlands, wild and scenic rivers (or rivers suitable for wild and scenic designation), caves, parks, refuge lands, or areas of critical environmental concern.

4. *Not have highly controversial environmental effects.*

“Highly controversial”, in the context of 40 CFR 1508.27(b) (4), refers to substantial disagreement within the scientific community about the environmental effects of a proposed action. It does not refer to expressions of opposition or expressions of preference among alternatives or differences of opinion concerning how public lands should be managed.

The effects for the Pilot Joe Demonstration Project are within the scope of the Medford District Resource Management Plan and are similar in nature to many other forest management projects that have been implemented across the Medford District. The anticipated effects of timber harvest, fuels reduction, and road work, including road decommissioning, documented in Chapter 3 of the EA, are well known and no highly controversial effects have been identified.

The environmental effects findings presented in the EA concern the implementation of the forest action proposed for the Pilot Joe Demonstration Project. Many comments were received stating opinions of how restoration could be done differently, how various different sizes of trees could be marked, or how more aggressive or less aggressive timber harvest could be implemented. The Purpose and Need of the Pilot Joe project is to demonstrate the approach outlined by Franklin and Johnson, not to demonstrate a variety of forest management strategies.

5. *Not have highly uncertain and potentially significant environmental effects or unique or unknown environmental risks.*

The analysis does not show that the proposed action will involve any unique or unknown risks. The anticipated effects of implementing the Pilot Joe Demonstration Project are well known and supported with referenced literature throughout the EA, and are similar in nature to the effects estimated and observed for other forest management projects implemented by BLM on the Medford District. The silvicultural prescriptions and harvesting methods (tractor and cable) are similar methods used on a regular basis when harvesting commercially thinned timber sales.

6. *Not establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.*

The decision to implement the Pilot Joe Demonstration Project will not set any precedents for future actions with significant effects. The project will inform discussion about forest planning just as the many projects that have come before will also be used to inform future planning efforts.

The Pilot Joe Demonstration Project will implement actions approved for forest management under both the 1995 Medford District Resource Management Plan (RMP) (which incorporated the Northwest Forest Plan) and the 2008 Medford District RMP, and is therefore not precedent setting (see CEQ consideration number 10).

7. *Not result in significant cumulative environmental effects.*

Cumulative environmental effects are “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions” (See definition of “cumulative impact” in 40 CFR § 1508.7).

Analysis was performed at multiple scales, and included the consideration of past actions, as reflected in current conditions, current actions, and foreseeable future actions on both private and federal lands (EA, Chapter 3, Affected Environment & Environmental Consequences). No significant beneficial or adverse environmental effects were identified (see CEQ consideration number one), therefore, no adverse cumulative environmental effects are anticipated.

8. *Have no significant effects on scientific, cultural, or historical resources, including those listed in or eligible for listing in the National Register of Historic Places.*

In accordance with the protocol for managing cultural resources on lands administered by the Bureau of Land Management (BLM) and the National Historic Preservation Act of 1966 (specifically section 106), as amended, a literature review and archaeological reconnaissance was conducted for the Pilot Joe project area. The action will not affect objects listed on the National Register of Historic Places, nor will it cause destruction of significant scientific, cultural, or historic resources as any resources recorded during the survey will be buffered and protected from project activities. Any new sites that may be discovered during operations would be evaluated and given appropriate protection. (EA, 2-18 and 3-109).

9. *Have no adverse effects on species listed or proposed to be listed as Federally Endangered or Threatened Species, or have adverse effects on designated critical habitat for these species.*

A Biological Assessment (BA), completed by the BLM, concluded that the potential effects from the Pilot Joe project *may affect, are likely to adversely affect (LAA)* the northern spotted owl. Pursuant to the Endangered Species Act (ESA), formal consultation was completed with the US Fish and Wildlife Service. The Service concluded in its Biological Opinion (13420-2011-F-0162) that the District’s proposed action is *not likely to jeopardize* the continued existence of the spotted owl (p.51).

Alternative 2 would have minimal impacts to the northern spotted owls (NSOs) found within the planning area given that:

- A relatively small amount (3.5%) of the total Nesting, Roosting, and Foraging (NRF) habitat located within the planning area would be downgraded to dispersal-only habitat and the treatments would have long term beneficial effects to the forest structure and overall forest “health”.
- The majority (89%) of the proposed treatments that would downgrade NRF habitat would occur at the home range scale of the NSO territories present in the planning area. Activities that downgrade NRF habitat at the home range scale have less potential to disrupt NSO behavior or nesting success than those treatments occurring at the nest patch or core scale.
- None of the proposed treatments would downgrade habitat within any NSO nest patch. The spacing, timing and the retention of key habitat features as called for under the proposed action and PDFs for this project are likely to avoid adverse impacts to spotted owls with respect to prey availability.

The Pacific fisher (*Martes pennanti*) was petitioned for listing as endangered or threatened under the Endangered Species Act on three occasions. In 2004 and 2006, the USFWS determined that listing fishers as threatened was warranted, but was precluded by higher priority listing actions (USDI FWS 2004). The species remains a USFWS candidate species (USDI, USFWS 2004, 71 Fed. Reg. 53777, Sept. 12, 2006).

Alternative 2 would have minimal impacts to the fishers found within the planning area given that:

- No known denning sites would be impacted and proposed activities, and the management activities under Alternative 2 would not be expected to cause direct mortality of any fishers (EA, 3-84).
- The treatments would reduce the amount of suitable denning and resting habitat within the planning area by 3.5%, and a large amount (82%) of the planning area will not receive any treatments and fishers would be able to utilize the majority of the planning area in the same fashion as prior to project implementation (EA, 3-85),
- Fishers occupy large home ranges, and the activities proposed under alternative 2 would occur within only a small portion of the planning area, which would likely impact a portion of one or two fisher home ranges (EA, 3-85).
- The Project Design Features in chapter 2 include the retention of snags and coarse woody material (CWM), which are important habitat features for fisher. This provision, along with the spatial and temporal staggering of treatments across the landscape would ameliorate the potential negative effects of these fuels treatments on prey species at the landscape level (EA, 3-85).

In 1997 the Southern Oregon/Northern California (SONC) Evolutionary Significant Unit (ESU) of coho salmon (*Oncorhynchus kisutch*) was listed as “threatened” with the possibility of extinction under the Endangered Species Act (ESA) by the National Marine Fisheries Service (NMFS). SONC coho are known to occur in the mainstem of the Applegate River and several of its larger tributaries, including lower reaches of Chapman and Keeler Creeks.

A much more extensive project in this same planning area was developed and analyzed in 2004 & 2005 but never implemented. That project (China Keeler Landscape Project) was originally determined to be a “May Affect, Not Likely Adversely Affect (NLAA)” for listed SONC coho salmon, their Critical Habitat, and Essential Fish Habitat. Project design features, Riparian Reserve stipulations and buffers, and site conditions would ensure that there is a less than negligible chance of negatively affecting Critical Habitat for listed SONC coho or Essential Fish Habitat for coho and chinook. The Southwest (SW) Oregon Level 1 Team has reviewed the earlier project, which included more harvest, more road construction, more road decommissioning in Riparian Reserves, more fuels work, and culvert removal and replacement in fish-bearing streams. This earlier project was determined to be “May Affect, Not Likely to Adversely Affect (NLAA).” The SW Oregon Level 1 Team concurred with the NLAA determination. Medford BLM received a Letter of Concurrence (LOC # 2004/00526) from NOAA Fisheries on August 27, 2004 for the China Keeler Project as described in the May, 2004 Environmental Assessment. Reinitiation of section 7 consultation would only be needed if the decision in the FONSI would have more effects on listed species and their habitat than was previously analyzed [see Federal Regulation 50CFR§402.16(b)]. The much reduced scale of the Pilot Project would therefore still be covered by the original determination of “May affect/Not Likely to Adversely Affect” SONC coho salmon, CCH, and EFH. This determination was made based on analysis to fish and aquatic habitat in the Biological Assessment prepared for the National Marine Fisheries Service (NMFS). Effects to

aquatic habitat were determined to be of insufficient magnitude to meaningfully impact aquatic habitats in fish bearing channels.

There would be no effect on sites of special status botanical species, *Fritillaria gentneri*, as no populations occur within the project or analysis area for the Pilot Joe Project (EA, 3-99).

10. Not Violate a Federal, State, Local, or Tribal law, regulation or policy imposed for the protection of the environment.

The Pilot Joe Demonstration Project was designed to comply with the 1995 Medford District Record of Decision (ROD) and Resource Management Plan (RMP), and is also compliant with Management Direction, Objectives, and Best Management Practices of the 2008 Medford District ROD and RMP. With implementation of required Project Design Features, the proposed action would not threaten a violation of any federal, state, or local environmental protection laws. Project Design Features are an integral part of the Proposed Action. They are developed to avoid or reduce the potential for adverse impacts to resources. The Project Design Features (PDFs) also incorporated Best Management Practices (BMPs) to reduce nonpoint source pollution to the maximum extent practicable. BMPs are considered the primary mechanisms to achieve Oregon Water Quality standards (EA, 2-1).

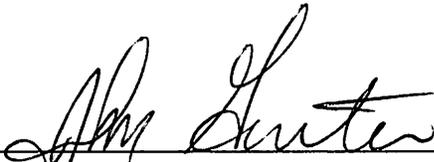
Although the selected alternative contains some design features not mentioned specifically in the 2008 ROD and RMP, these design features are consistent with the ROD and RMP. For example, the Pilot Joe project contains Project Design Features that apply Best Management Practices of the 1995 RMP (Appendix D); the application of these Best Management Practices is consistent with Best Management Practices contained in the 2008 RMP (Appendix C). Additionally, while the 2008 RMP does not require consideration of components of the 1995 RMP, because the project was initiated under the 1995 RMP the project was designed and analyzed for conformance with 1995 RMP guidance for Riparian Reserves, Late-Successional Reserves, and the Aquatic Conservation Strategy Objectives. Therefore, the Pilot Joe Demonstration Project complies with both the 2008 Medford District RMP as well as the 1995 Medford District RMP.

The Pilot Joe Demonstration Project is consistent with the Medford District Resource Management Plan as amended by the 2001 *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (2001 ROD), as modified by the 2011 Settlement Agreement (EA, 1-6).

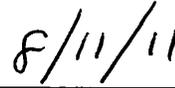
The proposed action is also in conformance with the direction given for the management of public lands in the Medford District by the Oregon and California Lands Act of 1937 (O&C Act), Federal Land Policy and Management Act of 1976 (FLPMA), the Endangered Species Act (ESA) of 1973, the Clean Water Act of 1987, Safe Drinking Water Act of 1974 (as amended 1986 and 1996), Clean Air Act of 1990, the National Historic Preservation Act of 1966, and the Archaeological Resources Protection Act of 1979 (EA, 1-7).

FINDING

I have determined the Pilot Joe Demonstration project does not constitute a major Federal action having a significant effect on the human environment; an environmental impact statement is not necessary and will not be prepared. This conclusion is based on my consideration of the Council on Environmental Quality's criteria for significance (40 CFR § 1508.27), with regard to context and intensity of the impacts described in the EA, my understanding of the project, review of project analysis, and review of public comments. The analysis of effects documented in the EA has been completed within the context of multiple spatial and temporal scales and within the context of the 1995 Medford District Resource Management Plan and the Northwest Forest Plan and reviewed for compliance with the 2008 Medford District RMP. The anticipated effects are within the scope, type, and magnitude of effects anticipated and analyzed in those plans, or otherwise determined to not be significant.



John Gerritsma
Field Manager, Ashland Resource Area
Medford District, Bureau of Land Management



Date