UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT OFFICE
BUTTE FALLS RESOURCE AREA

DECISION RECORD

Lost Creek Forest Management Project
(DOI-BLM-ORWA-M050-2016-0001-EA)

Introduction

The Medford District Bureau of Land Management, Butte Falls Resource Area (BLM) has completed the analysis in the *Lost Creek Forest Management Project Environmental Assessment* (EA) forest management actions, including commercial and noncommercial treatments, transportation management actions; activity fuels treatments, and water source and meadow restoration on approximately 1,315 acres of Matrix lands.

The Lost Creek Forest Management Project is located on BLM-administered lands in the Lost Creek-Rogue River and South Fork Rogue River 5th field watersheds.

The Project Area is located on BLM-administered lands in:

- T. 32 S., R. 01 E., Sections 35 and 36;
- T. 32 S., R. 02 E., Sections 27, 28, and 32-34;
- T. 32 S., R. 03 E., Sections 32 and 33;
- T. 33 S., R. 01 E., Sections 1-3, 10-15, 21-28, and 34-36;
- T. 33 S., R. 02 E., Sections 2-36;
- T. 33 S., R. 03 E., Sections 4-9, 16-21, 29, and 30;
- T. 34 S., R. 01 E., Sections 1-3 and 11;
- T. 34 S., R. 02 E., Sections 2-6; Willamette Meridian; Jackson County, Oregon.

Public Involvement

The Butte Falls Resource Area began outreach for this project in the Butte Falls Resource Area's Schedule of Proposed Actions published in *Medford's Messenger* (BLM's quarterly newsletter) beginning in the Summer 2015 edition. A letter briefly describing the Proposed Action and inviting comments was mailed to adjacent landowners, interested individuals, organizations, and other agencies on November 10, 2015. Four (4) comments and numerous Interest Response Forms were received during the 30-day scoping period. Based on those comment letters and input from the project interdisciplinary team of resource specialists, the BLM identified five relevant issues to include for analysis in the EA (pp. 1-9 to 1-10). Issues raised during scoping that were not analyzed in detail in the EA were addressed in Appendix A, Issues Considered but Eliminated from Detailed Analysis (EA, p. A-1 to A-36).

A 30-day public comment period for the EA was held from July 1, 2016 to August 1, 2016. A letter or email announcing the availability of the EA for public review was mailed to those who submitted an Interest Response Form or provided scoping comments and to grazing lessees, tribes, Rogue River-

Siskiyou National Forest, Jackson County Commissioners, Association of O&C Counties, Oregon Department of Forestry, Oregon Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and the library at Southern Oregon University. A legal notice of EA availability was published in the *Medford Mail Tribune* newspaper on July 1, 2016. The EA was also posted on the BLM's National Register (ePlanning) website. The BLM received three letters containing comments on the EA.

EA comments generally fell into 18 topic areas: (1) northern spotted owls; (2) fisher; (3) logging large trees; (4) cumulative impacts; (5) insects and forest pathogens; (6) soils; (7) regeneration logging, plantation establishment, and fire hazard; (8) future snag reduction; (9) tree removal; (10) neotropical migratory birds; (11) Aquatic Conservation Strategy; (12) Lost-Floras Deferred Watershed; (13) machine piling; (14) hardwood retention; (15) Recreation; (16) transient snow zone; (17) terrestrial wildlife; and (18) contract flexibility. The BLM has responded to these comments in Attachment 1 of this Decision Record.

Plan Consistency

The BLM signed a Record of Decision approving the Southwestern Oregon Resource Management Plan (2016 ROD/RMP) on August 5, 2016.

Revision of an RMP necessarily involves a transition from the application of the old RMP to the application of the new RMP. The planning and analysis of future projects such as timber sales requires several years of preparation before the BLM can design a site-specific project and reach a decision. Allowing for a transition from the old RMP to the new RMP avoids disrupting the management of BLM-administered lands and allows the BLM to utilize work already begun on the planning and analysis of projects.

The 2016 ROD/RMP (pp. 7, 10) allows the BLM to implement projects consistent with the management direction of either the 1995 RMP or the approved RMP, at the discretion of the decision maker, if—

- The BLM had not signed a project-specific decision prior to the effective date of the ROD;
- The BLM began preparation of NEPA documentation prior to the effective date of the ROD; and
- The BLM signs a project-specific decision on the project within two years of the effective date of the ROD.

The Medford District, Butte Falls Resource Area began preparation of NEPA documentation prior to the effective date of the 2016 ROD/RMP, as the District initiated planning and NEPA documentation for this project on December 11, 2015. This project was designed to conform to and be consistent with the Medford District's 1995 Record of Decision and Resource Management Plan (1995 ROD/RMP).

This project meets the criteria described in the 2016 ROD/RMP that allows the BLM to implement projects that conform and are consistent with the 1995 ROD/RMP, with the exception of five categories of prohibited carry-over actions (2016 ROD, pp. 10-11). The Lost Creek Project does not include any actions that are excepted and therefore precluded from the 2-year transition period under the 2016 ROD/RMP.

1. Regeneration harvest (construction of roads or landings does not constitute regeneration harvest) within the Late-Successional Reserve allocated by this ROD that is inconsistent with the management direction for the Late-Successional Reserve contained within the approved RMP.

The proposed treatment areas were reviewed against the 2016 ROD/RMP land use allocation layer in GIS. The 30 acres of proposed regeneration harvest in the Lost Creek Project are not located within Late-Successional Reserves allocated by the 2016 ROD/RMP.

2. Issuance of right-of-way grants within the Late-Successional Reserve allocated by this ROD that are inconsistent with the management direction for the Late-Successional Reserve contained within the approved RMP.

No right-of-way grants are proposed under the Lost Creek Project.

3. Commercial thinning within the inner zone of the Riparian Reserve allocated by this ROD that is inconsistent with the management direction for the Riparian Reserve contained within the approved RMP.

No commercial thinning is proposed in Riparian Reserves under the Lost Creek Project.

4. Projects within the District-Designated Reserve – Lands Managed for their Wilderness Characteristics allocated by this ROD that are inconsistent with the management direction for the District-Designated Reserve – Lands Managed for their Wilderness Characteristics contained within the approved RMP.

There is no District-Designated Reserve – Lands Managed for their Wilderness Characteristics in the Lost Creek Project Area.

5. Timber harvest that would cause the incidental take of northern spotted owl territorial pairs or resident singles and does not have a signed Biological Opinion and Incidental Take Statement that predates the effective date of the Biological Opinion for the approved RMP.

The Biological Opinion for the Lost Creek Project has determined that there will be "no incidental take" of northern spotted owls (USFWS 2016, p. 100).

Projects proposed and analyzed in the EA conform to the following:

- Final-Medford District Proposed Resource Management Plan/Environmental Impact Statement (PRMP/EIS) (USDI 1994) and Medford District Record of Decision and Resource Management Plan (RMP/ROD) (USDI 1995);

- Final Supplemental Environmental Impact Statement (Northwest Forest Plan FSEIS) and Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (USDA and USDI 1994a, USDA and USDI 1994b);

- Final SEIS for Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines (USDA and USDI 2000), and the ROD and Standards and Guidelines for Amendment to the Survey & Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines (USDA and USDI 2001);

- Medford District Integrated Weed Management Plan Environmental Assessment (USDI 1998) and tiered to the Northwest Area Noxious Weed Control Program (EIS, USDI 1985).

- This project utilizes the December 2003 Survey and Manage species list. This list incorporates species changes and removals made as a result of the 2001, 2002, and 2003 Annual Species Reviews (ASRs) with the exception of the red tree vole. For the red tree vole, the Ninth Circuit Court of Appeals vacated the category changes and removal of the red tree vole in the mesic zone, and returned the red tree vole to its status as existed in the 2001 ROD Standards and Guidelines, which make the species Category C throughout its range.

Consultation and Coordination

The federally threatened northern spotted owl and the endangered gray wolf are the two threatened and endangered wildlife species within or near the Lost Creek Project Area. The BLM has determined that the Lost Creek Forest Management Project is likely to adversely affect the northern spotted owl. Formal consultation with the U.S. Fish and Wildlife Service (USFWS) for the northern spotted owl began when the Biological Assessment (BA) was sent to the USFWS in June 2016 by the Medford District BLM. Meetings and a field trip to proposed project units took place in January 2016 as part of a more streamlined consultation process. The BLM received a Biological Opinion from the Service on August 15, 2016 (FWS Reference Number 01EOFW00-2016-F-0366). The Opinion found that implementation of the actions proposed in Alternative 2 would not reduce spotted owl survival and recovery at the provincial scale, and concluded that implementation of the Lost Creek proposed actions would have no incidental take and are not likely to jeopardize the spotted owl (USFWS 2016, pp. 98, 100).

The BLM determined the Lost Creek Project would have No Effect to the endangered gray wolf (*Canis lupus*); therefore, consultation was not required for this species. The Biological Opinion from the Service for the northern spotted owl did acknowledge BLMs determination of No Effect to the gray wolf and stated that it did not "include further analysis for that species" (USFWS 2016, p. 6).

The Lost Creek Project Area is outside the ranges of T&E plants except for one section (T34S-R2E-Section 5) which falls within the range of Gentner's fritillary (*Fritillaria gentneri*), a federally endangered species. The BLM has a programmatic consultation for T&E plants that generically covers the activities proposed in this EA. The Biological Assessment and Letter of Concurrence (#01EOFW00-2014-I-0013) prescribe measures, called Project Design Criteria, to ensure that management actions will not likely adversely affect populations or habitat. One of the project design criteria for Gentner's fritillary for large-scale forest management projects is to conduct two years of surveys if the project is within the range of the species, contains suitable habitat, and the action would negatively impact the population. The BLM has completed surveys to protocol in the above listed section and no *Fritillaria gentneri* sites were detected in this section or in the rest of the Project Area (EA, pp. 4-2 and A-2).

There are no federally-listed fish species or habitat within the Lost Creek Project Area. The resource area fisheries biologist determined there would be no-effect to federally-listed Southern Oregon Northern California Coast Coho (SONCC) Salmon or Coho Critical Habitat (CCH) and Essential Fish Habitat (EFH) in the Lost Creek Project; therefore, consultation with the NOAA Fisheries for this federally-listed fish species was not needed (EA, p. 4-2).

Letters describing the preliminary Proposed Action initiating consultation with the local federally recognized Native American Tribes were sent in November 2015. Further consultation in the form of meetings and phone calls took place and did not identify any concerns.

Consultation with the State Historic Preservation Office (SHPO) was not needed as the BLM determined that the project will have "no effect" to cultural resources.

Decision

As the Responsible Official, it is my decision to implement a modified version of Alternative 2 (a.k.a. Selected Alternative), as described below.

My decision will implement actions in locations described below and will include all required PDFs, as described in the EA (Chapter 2, Section 2.5), with the exception of a few minor changes described

below. All of the required PDFs were developed using resource protection measures identified by the Interdisciplinary Team and the Best Management Practices identified in the Medford District ROD/RMP (USDI 1995, pp. 151–175) and any plan amendments in effect at the time this document is published.

The following PDF from the EA has been ***modified*** (underlined) to provide more clear and consistent direction:

- Restrict ground-based yarding, <u>including mechanized equipment,</u> and soil ripping operations from October 15 to May 15, or when soil moisture exceeds 25% (15% for feller-buncher systems) (EA, p. 2-21).

The following PDFs from the EA have been ***modified*** (underlined) to provide for better public safety to recreationists during timber harvest and yarding operations. While closures may last 3-4 weeks, the closures would not occur during the season of high use.

- Do not conduct logging operations <u>starting the Friday before Memorial Day weekend until after Labor Day weekend</u> in units adjacent to recreation sites and trails, specifically, Units 23-1, 23-2, 23-3, 35-1, 19-1 and <u>18-1</u>.
- Install signing at trailheads, along the trails, <u>along the lakeshore and at boat ramps</u>, and along the roads in areas that the public travel to access recreational opportunities. Specific areas include the trail on the west side of the lake, the trail in section 35, and in section 19 on the north side of the lake.
- Coordinate with the Army Corps of Engineers to close <u>all recreational facilities</u> in the Takelma/Four Corners Campground area during logging operations.
- The Lake Shore Trail would <u>be closed in the vicinity of timber harvest areas during timber harvest operations</u>.

My decision is based on site-specific analysis; supporting information in the project record; management recommendations in the Lost Creek Watershed Analysis; management direction in the Medford District ROD/RMP; and public comments received. The Interdisciplinary Team and responsible official reviewed the written comments received in response to the EA. The review concluded the EA comments did not identify anything that would lead to changes in the EA document and no new information or issues were presented that had not been analyzed or addressed in the EA. The BLM responded to those comments in Attachment 1 of this Decision Record.

A Finding of No Significant Impact (FONSI) was completed for this project and I have determined this project does not constitute a major federal action that will have a significant impact on the human environment.

My decision is to authorize the following actions[1]:

- **Selective Thinning** and **Understory Reduction** (if needed) on 358 acres of Matrix lands in
  - Township 33 South, Range 1 East, sections 1, 23, and 25;
  - Township 33 South, Range 2 East, sections 3, 15, 18, 19, 23, 25, 26, 27, 29, 31, and 35; and
  - Township 34 South, Range 2 East, section 5.

[1] The EA documented the BLMs best estimate of acres using field data, ground verification by resource specialists, and Geographic Information System (GIS) technology. Estimates in the EA are intended to aid the reader in understanding the proposed actions. Please note that electronic technology can produce information that appears precise but is still dependent on further field work. During the layout of units, the boundaries are captured using GPS and the total unit acres sometimes change by minor amounts.

- **Density Management** and **Understory Reduction** (if needed) on 197 acres of Matrix lands in
  - Township 33 South, Range 2 East, sections 8, 9, 13, 26, 27, 29, and 35.
- **Regeneration Harvest – Structural Retention** on 16 acres of Matrix lands in
  - Township 33 South, Range 2 East, section 3.
- **Regeneration Harvest – NGFMA** on 9 acres of Matrix lands in
  - Township 33 South, Range 2 East, section 13.
- **Activity slash treatment** (lop and scatter, handpile and burn, biomass removal) on 580 acres.
- **Pre-designated skid trail construction** of 325 feet of trail in
  - Township 33 South, Range 1 East, section 23; and
  - Township 33 South, Range 2 East, section 19.
- **New helicopter, log, and service landing construction** at 12 sites in
  - Township 33 South, Range 1 East, section 35;
  - Township 33 South, Range 2 East, sections 3, 9, 15, 19, 21, 26, 27. 31; and
  - Township 34 South, Range 2 East, section 5.
- **Temporary route construction and decommissioning** of 0.55 miles of route in
  - Township 33 South, Range 2 East, sections 3, 9, 26, and 27; and
  - Township 34 South, Range 2 East, section 5.
- **Temporary route reconstruction and decommissioning** of 0.26 miles of route in
  - Township 33 South, Range 2 East, sections 13 and 29.
- **Road renovation** and **timber haul** on approximately 50.4 miles of road in
  - Township 32 South, Range 1 East, sections 25 and 36;
  - Township 32 South, Range 2 East, section 33;
  - Township 33 South, Range 1 East, sections 23, 25, 35 and 36;
  - Township 33 South, Range 2 East, sections 4, 9, 13-15, 19, 21-23, 25-35; and
  - Township 34 South, Range 2 East, sections 4, 5, 7, 8, and 17.
- **Road reconstruction** and **timber haul** on approximately 0.12 miles of road in
  - Township 33 South, Range 2 East, section 9.
- **Roadside vegetation maintenance** on 16.75 miles of road in
  - Township 32 South, Range 2 East, section 33;
  - Township 33 South, Range 2 East, sections 4, 13, 15, 21, 23, 25, 27, 29, 31, 33, and 35;
  - Township 33 South, Range 3 East, section 19; and
  - Township 34 South, Range 2 East, section 5.
- **Full road decommissioning** on 1.52 miles of road in
  - Township 32 South, Range 1 East, section 35; and

    - Township 33 South, Range 2 East, section 31.
- **Partial road decommissioning** on 3.09 miles of road in
    - Township 32 South, Range 1 East, section 35;
    - Township 32 South, Range 2 East, section 33;
    - Township 33 South, Range 1 East, sections 2, 3, and 11; and
    - Township 33 South, Range 2 East, section 5.
- **Water source restoration** at five sites in
    - Township 32 South, Range 2 East, section 33; and
    - Township 33 South, Range 2 East, sections 5, 31, and 35.
- **Meadow restoration** on 106 acres in
    - Township 33 South, Range 2 East, section 5.

An estimated 113 acres of commercial harvest and associated road work will not be included in this Decision; however, I anticipate including these actions in a separate timber sale or stewardship contract in fiscal year 2017. Additionally, the 152 acres of proposed Small Diameter Thinning is being deferred at this time but may be included in a stewardship or service contract in fiscal year 2017.

An additional estimated 364 acres within units analyzed in the EA for commercial harvest will not be included in this Decision because upon further review, it was determined that these areas were not logistically or economically feasible to harvest. As a result of these acres being dropped, the amount of timber haul, road renovation, and road reconstruction has been reduced by approximately 46.4 miles; temporary route construction and reconstruction was reduced by 0.28 miles and 0.03 miles respectively; construction of 9 landings is not needed; and approximately 0.56 miles of pre-designated skid trails is not needed.

Decision Rationale

My decision to authorize the Selected Alternative is based on consideration and evaluation of how well the purpose and need are met, the Decision Factors listed in the EA (p. 1-5), and the associated environmental consequences of implementing or not implementing the Lost Creek Forest Management Project, as analyzed in the EA and documented in the FONSI. I have read the comment letters we received during the EA public review period and I have considered them fully. I have determined that my decision outlined above best meets the purpose and need for this project, as identified in Chapter 1 of the Lost Creek Forest Management Project EA.

My decision to authorize the Selected Alternative is in compliance with the Medford District ROD/RMP and the Northwest Forest Plan (EA, p. 1-6). This decision 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 National Environmental Policy Act of 1969 (NEPA), 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 as amended, and the Archaeological Resources Protection Act of 1979 (EA, p. 1-7).

The BLM has completed all required Special Status Species (terrestrial wildlife and botanical species) and cultural surveys and applied mitigations where appropriate (EA, pp. 3-19, 4-2, A-2, A-3, and A-5).

In preparing the EA, the BLM interdisciplinary team analyzed the effects of the Proposed Action for the following issues: forest condition, northern spotted owl habitat, fisher, Aquatic Conservation Strategy, and economics. I have determined the effects will be within those analyzed in the *Medford District Proposed Resource Management Plan and Environmental Impact Statement* (PRMP/EIS 1994) or were otherwise insignificant. This action takes into consideration cumulative effects of past, present, and future management activities in the Project Area on nearby private and federal lands. Discussion of those effects can be found in the EA (Chapter 3).

In making my decision, I considered the Decision Factors identified in the EA (p. 1-5) to

1. Reduces competition-related mortality and the potential for wildfire risk due to activity fuels created by the project, and increases tree vigor and growth, and stand resiliency;
2. Provides for the establishment and growth of conifer species while retaining structural and habitat components, such as large trees, snags, and coarse woody debris;
3. Maintains or improves existing suitable northern spotted owl habitat within the provincial home range (1.2 mile radius) of known active northern spotted owl sites and substantially all of the older and more structurally complex, multi-layered conifer forests;
4. Captures opportunities to implement improvements in the transportation system to protect water quality;
5. Contributes to the District's Allowable Sale Quantity as directed by the Medford District RMP; and
6. Reduces the short-term and long-term costs of managing BLM-administered lands in the Project Area

I have chosen the Selected Alternative because it most completely meets the identified purpose of and need for the project for the following reasons:

- Increases resiliency of forest stands to environmental disturbances (e.g. wildfire, drought, disease, and insects) by reducing stand densities and ladder fuels and putting stands on trajectories towards the development of structurally complexity, age and size variability, and increased vigor, while minimizing the impacts to northern spotted owls and other Special Status Species on 555 acres (commercial thinning units).
- Creates growing space for new trees and/or increases the growth of existing understory trees, while creating regeneration opportunities for shade intolerant species on 25 acres (regeneration harvest units).
- Reduces the potential risk of wildfire that may result from the slash (branches, twigs, and bark) produced during harvest treatments. Following harvest activity, a fuels assessment within each unit will determine the fuel hazard and fire risk based on surface fuel loading, aspect, slope, access, location of each unit, and treatment needed (e.g., handpile and burn, lop and scatter, biomass removal).
- Reduces potential sediment production by renovating up to 50.4 miles of roads, including blading the road surface, cleaning ditch lines and culvert inlets, replacing deteriorated culverts, and applying rock to depleted areas, to improve the long-term road drainage.
- Reduces potential sediment production and road density through 3.09 miles of partial road decommissioning, and 1.52 miles of full road decommissioning. Partial road decommissioning includes water barring, pulling of culverts (armored if necessary), seed with native grasses, mulching with weed-free mulch, and planting to reestablish vegetation. Full road

decommissioning includes the same actions as partial decommissioning, but also includes ripping the road and planting the area to reestablish vegetation.

- Reduces the short-term costs of managing the lands by providing vehicular access to harvest units by reconstructing 0.26 mile and constructing 0.55 mile of temporary routes located on stable locations, and permanently reconstructing 0.12 miles of road with an existing road prism that has become overgrown.
- Maintains or improves existing highly suitable northern spotted owl habitat within the 1.3-mile provincial home range of known active northern spotted owl sites and maintaining substantially all of the older and more structurally complex, multilayered conifer forests within the Project Area by planning treatments outside these areas.
- Provides an economical timber sale that will produce revenue for the Federal government and contribute approximately 4.9 million board feet of timber toward the Butte Falls Resource Area's and Medford District's Allowable Sale Quantity.
- Improves 5 existing water sources to allow use for fire suppression and by wildlife.
- Restores a 106-acre meadow area where tree and brush species are encroaching to rejuvenate brush species that would benefit wildlife as browse and act as a natural fuel break.

The EA analyzed three alternatives for the management of the BLM-administered lands in the Project Area: Alternative 1 (No Action), Alternative 2 (Proposed Action), and Alternative 3. Because the two action alternatives (Alternatives 2 and 3) were designed to meet the Purpose and Need for the project, the degree to which each alternative best meets the Purpose and Need varies and provides the basis for my decision.

Alternative 1 (No Action) would not meet the purpose and need for this project because no actions would be taken at this time. Forest management and timber harvest activities would not occur. No timber volume would be made available for use, no revenue would be produced for the Federal Treasury, and no full-time jobs would be supported. Stand densities would not be reduced and would continue to increase. Roads would not be decommissioned or improved and localized road sediment would not be decreased. Water sources would not be restored and would remain unusable for fire suppression. Meadow restoration would not treat the older or decadent in an effort to rejuvenate brush species that would benefit wildlife as browsing habitat, and to maintain existing meadows as natural fuel breaks. The meadow would continue the encroachment of brush and conifers.

The two action alternatives analyzed in the EA, Alternatives 2 and 3, proposed the same amount of Small Diameter Thinning to reduce tree densities and restore stand vigor, resiliency and stability. Both alternatives would restore five water sources to make more water available for firefighting and wildlife habitat and restore 106 acres of meadows to obtain the desired vegetation condition. The primary differences between the two action alternatives are in the types of silviculture prescriptions proposed and the number of acres treated.

The Selected Alternative (a modified version of Alternative 2) provides the best balance between competing management objectives and best meets the Purpose and Need of this project.

The Selected Alternative would treat the most acres and bring stands to more optimal density levels and would have more ability to create favorable conditions for species diversity compared to Alternative 3 (EA, p. 3-19).

The Selected Alternative includes the use of Selective Thinning to treat more acres than Alternative 3. The objectives of Selective Thinning include reducing stand densities, increasing stand resilience/resistance to wildfire, drought, disease and insects, and decreasing ladder fuels. These objectives will be met on a greater number of acres which will better meet the identified need to promote tree survival and growth and to improve the vigor, resiliency, and stability of forest stands.

Density Management included in the Selected Alternative would treat stands that are currently existing suitable habitat that would best be maintained at this time.

The Selected Alternative allows for more active management (through the treatment of more acres) to accelerate the development of forest stand conditions that meet long-term management objectives for northern spotted owl (NSO) habitat and shift stand trajectories to encourage key habitat components for the future. The Recovery Plan for the NSO describes a Recovery Strategy which includes habitat conservation and active forest management as necessary steps to address these threats; including: conserving more occupied habitat and unoccupied high-value habitat; and encouraging and initiating active management actions that restore, enhance and promote development of high value habitat, consistent with broader ecological restoration goals (USDI FWS 2011a, p. III-4-5, USDI FWS 2016, p. 87).

The Selected Alternative includes regeneration harvest that would create growing space for new trees and/or increase the growth of existing understory trees, while creating regeneration opportunities for shade intolerant species.

The Selected Alternative would produce a timber volume of approximately 4.9 million board feet, which is more volume than the 4.0 million board feet estimated in Alternative 3. Consequently, revenue for the Federal Treasury and full-time jobs would be greater when compared to Alternative 3. The Selected Alternative will better meet the needs identified in the project to produce a sustained yield of products to support local and regional economic activity.

I have considered how the alternatives analyzed in the EA meet the purpose and need, the associated environmental effects, and public input. Based on these considerations, I have decided the Selected Alternative best meets the purpose and need described for this project, while minimizing the potential for adverse effects on the environment. The required implementation of PDFs will provide for the protection of resources consistent with existing laws and policy and direction in the 1995 ROD/RMP.

Administrative Remedies

The decision described in this document is a forest management decision and is subject to protest by the public. In accordance with Forest Management regulations at 43 CFR Subpart 5003—Administrative Remedies, protests of a decision, including a timber sale decision, may be filed with the Authorized Officer within 15 days of the publication date of the Notice of Decision or Notice of Sale in the *Medford Mail Tribune* newspaper, Medford, Oregon. The protest must clearly and concisely state which portion or element of the decision is being protested and the reasons why the decision is believed to be in error.

When timber is offered for sale, a Notice of Sale will be published in a newspaper of general circulation, in this case the *Medford Mail Tribune*. Publication of the *first* Notice of Sale establishes the effective date of the decision for the portions of this Decision to be implemented by the Lost Rogue Timber Sale (commercial timber harvest, treatment of activity slash, and associated road work). The protest of the Lost Rogue Timber Sale must be made within 15 days of the publication of the *first* Notice of Sale.

In accordance with BLM Forest Management Regulation 43 CFR § 5003.2 (a and c), the effective date of this decision, as it pertains to actions that are **not** part of an advertised timber sale, will be the publication date of the Notice of Decision and FONSI in the *Medford Mail Tribune*. This date applies to the following actions: Understory Reduction (580 acres), partial road decommissioning (3.09 miles), full road decommissioning (1.52 miles), roadside vegetation maintenance (16.75 miles), meadow restoration (106 acres), and water source restoration (5 sites). Publication of this notice establishes the date initiating the protest period provided in accordance with 43 CFR § 5003.3.

43 CFR § 5003.3 subsection (b) states, "Protests shall be filed with the authorized officer and shall contain a written statement of reasons for protesting the decision." This precludes the acceptance of electronic mail (email) or facsimile (fax) protests. **Only written and signed hard copies of protests delivered to the Medford District Office will be accepted.** The Medford District Office is located at 3040 Biddle Road, Medford, Oregon.

43 CFR § 5003.3 subsection (c) states: "Protests received more than 15 days after the publication of the notice of decision or the notice of sale are not timely filed and shall not be considered." Upon timely filing of a protest, the authorized officer shall reconsider the project decision to be implemented in light of the statement of reasons for the protest and other pertinent information available to him. The Authorized Officer shall, at the conclusion of the review, serve the protest decision in writing to the protesting party(ies). Upon denial of a protest, the Authorized Officer may proceed with the implementation of the decision as permitted by regulations at 5003.3(f).

If no protest is received by the close of business (4:30 p.m.) within 15 days after publication of the Notice of Decision or *first* Notice of Sale, this decision will become final. If a timely protest is received, the project decision will be reconsidered in light of the statement of reasons for the protest and other pertinent information available, and the Butte Falls Resource Area will issue a protest decision.

Teresa J. Trulock
Field Manager
Butte Falls Resource Area

8/19/2016
Date

Attachment 1 – Response to EA Comments

The BLM received three letters in response to the release of the Lost Creek Forest Management Project Environmental Assessment (EA). Comment letters were received from Klamath-Siskiyou Wildlands Center (KSWC), American Forest Resource Council (AFRC), and one private citizen. Written comments were reviewed by the interdisciplinary team and responsible official and substantive comments are addressed below. Substantive comments were identified and the BLM has responded to substantive comments listed below.

Substantive Comments are those that:

- Provide new information pertaining to the Proposed Action or an alternative;
- Identify a new relevant issue or expand on an existing issue;
- Identify a different way (alternative) to meet the purpose and need;
- Identify a specific flaw in the analysis;
- Ask a specific relevant question that can be meaningfully answered or referenced;
- Identify an additional source of credible research, which if utilized, could result in different effects.

Non-substantive comments are those that:

- Primarily focus on personal values or opinions;
- simply provide or identify a preference for an alternative considered;
- Restate existing management direction, laws, or policies that were utilized in the design and analysis of the project (or provide a personal interpretation of such);
- Provide comment that is considered outside of the scope of the analysis (not consistent or in compliance with current laws and policies, is not relevant to the specific project proposal, or is outside of the Responsible Officials decision space);
- Lack sufficient specificity to support a change in the analysis or permit a meaningful response, or are composed of general or vague statements not supported by real data or research.

The comments and responses are intended to be explanatory in nature and where applicable to guide the reader towards analysis or information contained in the Environmental Assessment (EA).

Northern Spotted Owls

Comment 1: The project will "take" spotted owls and is "likely to adversely affect" both owls and their habitat. Hence, the timber sale involves significant impacts to a federally listed species such that an Environmental Impact Statement (EIS) must be prepared to document and analyze those significant impacts.

BLM Response: While the EA analysis does describe what adverse effects there would be to northern spotted owl (NSO) habitat, the BLM implemented measures to avoid "harm" to individual owls. The "take" of spotted owls is determined by the U.S. Fish and Wildlife Service (USFWS) and an incidental take statement is provided in their Biological Opinion. The BLM reduced adverse effects to occupied

sites by completing surveys and determining occupancy and then modifying prescriptions within units that overlap with an occupied site. A site needs to be occupied for the USFWS to make an incidental take determination. The Biological Opinion from the USFWS concluded that no incidental take of spotted owls is anticipated due to the proposed action [Lost Creek Project] (USFWS 2016, pp. 91, 100).

The EA has adequately addressed the impacts to NSOs and their habitat and no significant impacts are anticipated as a result of implementing this project; therefore, an EIS is not necessary. The EA concluded that "this project, when coupled with other recent or proposed actions in the Analysis Area, would not preclude the NSO from nesting, foraging, or dispersing within the Analysis Area, but would diminish the NSO's NRF habitat by 41 acres (0.2% of federal lands in the Analysis Area), and roosting/foraging habitat by 50 acres (0.2% of federal lands in the Analysis Area) in the short-term" (p. 3-50).

Comment 2: The analysis regarding the long-term significant downgrading of hundreds of acres of suitable habitat in decifit activity centers is inadequate and misleading. Table 3-4 of the EA shows that the BLM anticipates that downgraded NRF and RF habitat will not recover to 60% canopy within 30 years. However, the contention on page 3-36 of the EA that states "nesting opportunities would develop in 20 to 30 years as the canopy cover returns to 60%" ignores the BLM projections in Table 3-4 (p. 3-15).

BLM Response: The 30-years post-treatment data displayed in Table 3-4 (p. 3-15 of the EA) is a modeled estimate of canopy cover produced from a distance independent growth and yield model set of equations.

The ORGANON (Hann 2013) is an individual tree, distance-independent growth and yield model, commonly used to evaluate forest-management treatments. Canopy cover is estimated by summing individual tree crown areas, using species-specific crown radii formulae developed from regional inventory plots. The canopy cover estimations are then corrected for crown overlap by assuming a random distribution of canopy elements (Crookston and Stage, 1999). Fiala et al. reported that "Although comparison of effects of simulated treatments on relative cover levels is probably not affected, it may not be appropriate to apply the current FVS cover equations to estimate specific cover levels." Therefore, the canopy cover for 30-years post-treatment displayed in Table 3-4 should not be used as an explicit value; it is intended to be summarized as a relative value.

Additionally, the BLM does not rely solely on modeling data for estimations of canopy cover especially during implementation. The wildlife biologist and Silviculture Forester do quality control checks on the tree marking to assure identified objectives are met including canopy cover thresholds in NRF and RF habitat proposed for treatment.

Comment 3: Page 3-70 of the EA reveals that it is both foreseeable and expected that downgraded forest stands "could be available for harvest again in 10 to 20 years…. The BLM cannot simultaneously claim that it is downgrading habitat in deficit NSO home ranges in order to "accelerate the growth of NSO habitat" at the same time that it acknowledges that current suitable NSO habitat will become unsuitable for over 30 years post-logging, and that the agency will foreseeably log the stands yet again within that timeframe.

BLM Response: The EA acknowledges that proposed treatments that would downgrade existing NRF and RF habitat would have a short-term effect for a long-term benefit on habitat (EA, p. 3-34). The EA also states that these short-term impacts would only impact 2.6% of federal land in the Analysis Area

(NRF and RF combined) and NSOs can still use the remaining NRF, RF, and Dispersal habitat for dispersing through the landscape (p. 3-34).

Even though the stands proposed for treatment under this project "could" be available for harvest in the future, the BLM would still need to consider the effects to northern spotted owls at that time. There is no indication at this time that these stands "would" be harvested in 10-20 years; that is just an estimation of when they could become available again based on stand conditions and growth rates. Additionally, the BLM would have to go through consultation with the U.S. Fish and Wildlife Service once again for any new projects within spotted owl habitat.

Comment 4: Downgrading existing suitable habitat in deficit activity centers will increase the magnitude of the barred owl effect. Increasing forest fragmentation through road construction, landing construction and the establishment of yarding and skid trails will contribute to the magnitude of the barred owl effect. Long-term canopy reductions that downgrade NSO habitat for decades will also increase the magnitude of the barred owl effects.

BLM Response: The EA describes how the effects from barred owls are being addressed at a regional level and at the local level, the Lost Creek Project is in compliance with the current measures in place to offer spotted owls protection from barred owls by identifying and buffering high quality northern spotted owl habitat (RA 32 stands).

Page 3-39 of the EA states: "The BLM surveyed for RA 32 (structurally complex forest) within the Lost Creek Analysis Area and identified 906 acres of RA 32 habitat. All 906 acres of RA 32 habitat, as well as an additional 6,949 acres of NRF habitat were deferred from treatment within the Analysis Area. The intent of RA 32 is to maintain the older and more structurally complex multi-layered conifer forests on federal lands in order to not further exacerbate the competitive interactions between NSOs and barred owls. Since the BLM is not proposing to treat structurally complex forest and is retaining additional NRF habitat within the Analysis Area, the likelihood that inter-species competition would be exacerbated as a result of this project would be minimal. Some competitive interactions are still anticipated to occur since barred owls have been observed in the Analysis Area."

Comment 5: It was not clear if NSO has been documented in TWP 33S-2E-Section 5 with the area recommended for Meadow Restoration.

BLM Response: The Meadow Restoration project is within the home range of a "high priority" owl site, but outside of the half-mile core area. Table 3-13, on page 3-47, shows 55 acres of non-habitat treatment within high priority sites, all of which is meadow restoration, and 144 acres of dispersal-maintained within high priority sites, of which 51 acres is meadow restoration dispersal-only (McKelvey 6) habitat.

Comment 6: Concerned that seasonal restrictions and noise disturbance buffers are inadequate to protect NSOs, particularly young fledglings.

BLM Response: Noise associated with proposed project activities was addressed in *Appendix A, Issue Q, p.A-31* of the EA.

This issue was considered but not fully analyzed in detail because the potential for spotted owls to be impacted by noise associated with proposed project activities is eliminated through the implementation of PDFs (*Section 2.5*).

Nesting owls are confined to an area close to the nest, but once the young fledge, they can move away from noise and activities that might cause them harm. Since all project activities would follow mandatory PDFs that restrict activities to outside of the breeding season (March 1st to September 30th)

and beyond recommended disturbance distance thresholds (see Table 2-2 in Chapter 2, Section 2.5.1, Objective 5), as established by the US Fish and Wildlife Service, no harm to nesting owls, or their young, is expected from project related noise.

Comment 7: BLM contends that spotted owl prey species may recover in a 2-30 year time frame. No explanation is given for the wide range of uncertainty expressed here. No quantitative analysis is presented as to the effects of a potential 30-year reduction in prey species. No discussion is presented as to whether prey species will in fact recover if the BLM again logs these stands that "could be available for harvest again in 10 to 20 years" as anticipated on page 3-70 of the EA.

BLM Response: The EA (p. 3-40) states: The impacted prey species would rebound within 2 to 30 years. This simply means that different prey species will return to the treated area at different times. Prey species are not going away, as there are many acres of untreated land for foraging, making them available to NSO. Proposed forest management activities would retain existing forest structure or help create forest structure in stands currently lacking structure. Page 3-14 of the EA states: "Actions proposed under Alternative 2 are designed to benefit stand health, resiliency, and stability. Under commercial thinning and Small Diameter Thinning prescriptions, forest stands would be thinned to a more desirable stocking level in comparison to current conditions to improve the growth and vigor of the remaining trees. These thinning treatments would also help to accelerate the development of heterogeneous stand structure, increase species diversity, and reduce hazardous ladder fuels. Regeneration Harvest prescriptions would create growing space to allow a new cohort of trees to occupy the stand and create early seral conditions and increase species diversity. Additionally, these treatments would aid in reducing the effects of insect and disease and their rate of spread to adjacent lands. Thinning and Regeneration Harvest prescriptions provide the opportunity to affect tree species composition with a species preference order of: sugar pine, ponderosa pine, incense-cedar, Douglas fir, and white fir. Maintaining drought-resistant species (ponderosa pine and sugar pine) helps to ensure the resiliency of forest stands during a period of climatic uncertainty. Alternative 2 would break up surface and crown fuels that have been created under a regime of fire exclusion."

Comment 8: Post-logging blowdown may foreseeably lengthen the time for canopy closure to establish in downgraded NRF stands post-logging.

BLM Response: While there is a level of risk for blowdown events, depending on many biotic and abiotic influences, predicting blowdown would be speculative. It has been documented that post-logging blowdown or windthrow can be an undesirable side effect of thinning, especially during the first 3-5 years following treatment (Cremer et al. 1982). Two of the main factors that predispose stands to windthrow include high height to diameter ratios (large/long canopies) and the topographic position (ridge, mid slope, valley bottom) (Mitchell 2000). The residual stands spatial arrangement of trees and where they sit on the landscape as well as the crown condition of leave trees can both be incorporated into a prescription and logging operation implementation to decrease the probability of a damaging wind event that could potentially lengthen the time for canopy cover to recover to the desired condition. Smith et al (1997) recommends that retaining the largest and most well developed trees because of their "thriftier crowns and stronger stems" can lower the potential for blowdown/windthrow. As a general rule the prescriptions designed for the Lost Creek Project focus on removing low vigor trees and leaving the structural elements in the stand, which would allow the "weaker" retained trees to respond physiologically to the decrease in stand density (see EA, pp. 2-6 to 2-9). Lastly, wind events of sufficient magnitude to significantly modify the post-treatment stands are inherently random in nature and occur chaotically across the landscape.

Comment 9: In our scoping comments we requested that the BLM please avoid downgrading or removing habitat for this [NSO] listed species. Our request was not heeded.

BLM Response: This request was addressed in the EA (p. 2-30). Additionally, while the EA did not analyze an alternative that would avoid downgrading or removing any NSO habitat, both action alternatives were designed to "protect and conserve federally listed and proposed species, and manage their habitats to contribute toward their recovery in compliance with the Endangered Species Act (ESA), approved recovery plans, and Bureau Special Status Species policies." Furthermore, Alternative 3 was developed to provide an alternative that would achieve an even higher level of protection for NSOs by reducing the amount of acres treated within NSO home ranges and reducing the amount of habitat downgrade.

Comment 10: We requested that the BLM acknowledge that its Watershed Analysis (WA) indicates that habitat fragmentation and loss is a significant barrier to owl recovery in this project area….The BLM elected not to address the concern it had previously expressed for "connectivity on a regional basis to provide genetic interchange."

BLM Response: While fragmentation does exist across the Analysis Area, the BLM concluded that the proposed action would not increase fragmentation across the landscape because of the habitat that would be retained on BLM-administered lands. This issue was addressed in the EA on page 3-39 which states: "Some private lands within the Analysis Area may be subject to intensive timber harvest, but the timing and magnitude of such harvest is unknown. Even when considering potential treatments on private lands, up to 8,010 acres of suitable NRF, 401 acres of roosting/foraging, and 4,191 acres of dispersal habitat within the Analysis Area would remain functional and provide adequate habitat for NSOs to disperse, forage or reproduce within the Analysis Area (NRF also functions as roosting/foraging and dispersal habitat). The overall design of the treatments within NSO home ranges within the Analysis Area, and the incorporation of Project Design Features, would either maintain the function of suitable NSO habitat or promote future, long-term benefits to NSO habitat."

The EA also states on page 3-48 that: "Wildfires, fire suppression, road building, windstorms, and timber harvest throughout the Analysis Area have resulted in habitat modification and fragmentation, and have changed the distribution and abundance of wildlife species surrounding the Analysis Area. The associated habitat loss has negatively affected late-successional forest habitat dependent species by reducing stand seral stage and changing habitat structure. Species associated with younger forested conditions, however, have benefited from these changes due to the increased acres of young stands. The change in habitat was included in the basin-wide update of the baseline situation and was used to calculate the current habitat condition within the Analysis Area. As thinned canopies continue to grow, some of these stands would return to being NRF habitat in 30 to 80 years.

Private lands surrounding the Analysis Area are made up of early-, mid-, and late-seral forests, agricultural, and shrub/oak lands. Most private forest lands are managed as tree farms for production of wood fiber on forest rotations. It is expected that any remaining late-seral forests on private timber lands will be converted to early-seral forest over the next one or two decades. For those species dependent on early-seral habitat, private forest lands do not always provide quality habitat as competing vegetation that includes flowering plants, shrubs and hardwood trees are regularly sprayed to reduce competition with future harvestable trees."

The analysis in the Biological Assessment, however, concludes that the proposed action would not preclude owls from dispersing across the fragmented landscape: "Habitat supporting the transience phase of dispersal contains stands with adequate tree size and canopy cover to provide minimal foraging opportunities and protection from avian predators. This may include younger and less diverse

forest stands, such as even-aged, pole-sized stands, than foraging habitat but such stands should contain some roosting structures and foraging habitat to allow for temporary resting and feeding during the movement phase (USFWS 2011a). Spotted owls are able to move successfully through highly fragmented landscapes typical of the mountain ranges in western Washington and Oregon (Forsman, et al. 2002) (Pages 72-73 of the BA).

Fisher

Comment 11: In the Pacific fisher section of the EA at page 3-55, the BLM inexplicably reduces the projected timeframe for downgraded NRF stands to recover to 60% canopy to a mere 10-15 years with no attempt to harmonize that figure with the rest of the EA. As disclosed on page 3-15 of the EA, none of the forest stands downgraded by logging will in fact regain 60% canopy closure within 30 years, let alone within 10 years.

BLM Response: The northern spotted owl analysis estimated it could take up to 30 years for BOTH the canopy cover and additional tree layering to form (structure), since canopy cover alone does not define spotted owl habitat (Pages 3-16, 3-33, 3-34, 3-36, 3-44, 3-46, and 3-47). The estimate of 10-15 years stated on Page 3-55 was referring to the ability of fisher to forage in the downgraded stands, not necessarily a return to denning habitat within that timeframe. Different prey species will return to the treated areas at various times. Prey species are not going away, as there are many acres of untreated land for foraging, and would be available to fisher. Proposed Selective Thinning and Density Management prescriptions would retain existing forest structure or help create forest structure in stands currently lacking structure (EA, pp. 3-31 and 3-32).

Comment 12: The BLM's reliance on NSO habitat as a surrogate for analyzing and disclosing the impacts of proposed logging on Pacific Fisher population dynamics is misplaced.

BLM Response: Fishers are highly mobile, have large home ranges, and travel over large areas. In the Southern Cascades population, the average home range for females was approximately 6,200 acres (25 km2). Male home ranges varied from approximately 36,300 acres (147 km2) during breeding season to 15,300 acres (62 km2) during the nonbreeding season (Aubry and Raley 2006). One male dispersed approximately 34 miles (55 km) to the Big Marsh area on the Deschutes National Forest (Aubry and Raley 2002). Other fisher research studies on the west coast have shown that fisher mean home range size varies considerably. Females' mean home ranges vary from 1.7 km2 to 59 km2, and males' from 7.4 km2 to 177.5 km2.

The northern spotted owl NRF habitat-type described in Section 3.3.3.1 adequately describes suitable fisher denning and resting habitat because there is a direct correlation of key habitat features used to assess NSO habitat and fisher habitat (high canopy cover, multi-storied stands, large snags, and large down trees on the forest floor). Using NSO habitat as a surrogate for fisher habitat has been accepted by the courts as a reasonable practice (KS Wild v. US BLM, Case No. 06-3076-PA, Order and Judgment 9/10/2007).

Comment 13: BLM fails to quantify the impacts of overstory reduction, roads, fragmentation, uncharacteristically severe wildfires and the reduction of structural elements on fisher populations. This is a significant omission given that the BLM is proposing to reduce forest overstory canopy, further fragment fisher habitat, increase fire hazard in regeneration logging units, and remove structural elements (such as mistletoe trees and hardwoods <12" DBH) that provide fisher habitat….the BLM has a NEPA duty to disclose and quantify the synergistic impacts of conducting logging activities that increase every additional threat to fishers, including within the checkerboard land ownership pattern, that are identified on page 3-54 through implementation of the Lost Creek timber sale.

BLM Response: The EA analysis did disclose and analyze the potential cumulative effects of proposed actions in addition to actions proposed on adjacent lands, both federal and private (checkerboard). Page 3-56 of the EA refers the reader to the NSO cumulative effects section (*section 3.3.4*) for a summary of relevant ongoing and reasonably foreseeable projects that could cumulatively affect fisher and their habitat. Even when considering potential treatments on private lands, up to 8,010 acres of suitable resting and denning habitat within the Analysis Area would remain functional and provide adequate habitat for fishers to occupy, forage, or reproduce within the Analysis Area. The overall design of the treatments and PDFs would maintain the function of suitable fisher habitat within the Analysis Area. The EA (pp. 3-56 and 3-57) continues to describe the anticipated impacts of these other actions in combination with the proposed actions and states that "Considering the cumulative effects of this project and other project activities within the watershed, the project would not preclude the fisher from foraging or denning within the Analysis Area."

Comment 14: Uncertainty regarding project (logging) impacts in the checkerboard land ownership when the BLM is proposing to increase threats to the species [fisher] necessitates completion of an EIS to document and quantify the potentially significant impacts to this imperiled species.

BLM Response: Because the BLM cannot say for certain when and where logging will occur on private, for analysis purposes, it is assumed that private lands will not provide any habitat for late-successional species. The analysis and the conclusions made do not rely on private land to contribute to adequate habitat for fisher species (p. 3-56).

The EA has adequately documented and quantified the potential impacts to fisher. Page 3-56 states: "Under Alternative 2, PDFs would minimize impacts to fishers. These include the retention of key structural elements such as legacy trees, snags, down woody debris, and large hardwoods for denning. Also, the majority of treatments (Density Management and Selective Thinning) proposed under Alternative 2 are expected to increase areas of structural complexity within stands that have remained homogenous from previous treatments. While 6% of the Analysis Area (federal lands) is proposed for treatments, areas such as Riparian Reserves, NSO RA 32 habitat, 100-acre KSOAC owl cores, NSO Nest Patches, Administratively Withdrawn land, and other reserves will continue to provide undisturbed fisher habitat….Fishers have large home ranges and would be able to move away from areas of disturbance while the disturbance is occurring, without impacting their ability to forage and disperse within their home range. The treatments proposed as part of the Lost Creek Project, as well as the other on-going management activities would be spread out both spatially and temporally, reducing the level of disturbance across the watershed."

Logging Larger Trees

Comment 15: An upper diameter limit should be reconsidered. Large older trees are fire resistant and protect soil desiccation and support an ecosystem that protects wildlife and stores carbon

Comment 16: The removal of larger trees exhibiting late-successional structure greatly increases the ecological impacts and social controversy of the proposed timber sale….retaining large diameter trees where they still exist would benefit the project in a number of ways and help achieve the project purposes regarding conservation of listed species, fire resiliency and sustained yield….Large trees are a primary element of NSO habitat function….Retaining large trees in the project area would greatly reduce potential scientific and social controversy regarding the harvest prescription and hence may contribute to the production of wood fiber….Large trees provide disproportionate hydrological benefits to this watershed. The crowns of such trees help moderate peak flow events via canopy cover. Large live trees are the only source of future large down wood, which also helps to filter and moderate water

flow throughout the year….the fire resiliency goals of the BLM may be best achieved by retaining such trees where they still exist in the watershed.

BLM Response to Comments 15 and 16*:* The EA (pp. 2-30 to 2-31) addressed the request to implement a diameter limit so as not to cut large older trees that are fire resistant, etc. In summary, the objective of silvicultural prescriptions is to manage a landscape, not individual trees; the larger, healthier trees, particularly drought- and fire-tolerant species, would be favored for retention; trees with old-growth characteristics would typically be retained, except on the 30 acres where regeneration harvest is proposed (which represents less than 0.02% of forestland in the Project Area).

The EA addressed the potential for impacts to peak flows as a result of reducing canopy cover from timber harvest (see Appendix A, Issue I, pp. A-13 to A-16). The EA concluded that "peak flows would not be affected by the harvest activities because the amount of canopy retained after harvest in proposed treatment units within the transient snow zone would be within the range of natural variability, which is assumed to be approximately 40% for forested lands in the Southern Cascade ecoregion" (p. A-16).

Cumulative Impacts

Comment 17: No cumulative effects analysis is attempted to disclose the direct, cumulative and synergistic impacts of established and increasing off-road vehicle use in combination with BLM logging and transportation management activities.

BLM Response: A cumulative impact is "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." The BLM has adequately addressed the effects off-road vehicle use in combination with BLM logging and transportation management activities (EA, pp. A-35 to A-36). The BLM concluded that with the implementation of PDFs, the potential for adverse effects from unauthorized OHV use is greatly reduced and therefore, there is no potential for cumulative impacts.

Comment 18: The BLM is silent as to the *increased* cumulative impacts in this (Lost-Floras sub-watershed) portion of the project area from ORV use and logging activities on private industrial timber lands since the initial watershed deferral that have increased both the amount of compaction and canopy openings (within the transient snow zone).

BLM Response: The BLM established watershed deferrals with standard land use allocations in 1995 as part of the Medford District Record of Decision and Resource Management Plan (USDI 1995). The Lost-Floras sub-watershed is one of the areas identified for deferral from management activities, including timber harvest for 10 years starting in 1993 (USDI 1995, pp.42-43). Areas that were deferred had cumulative effects generally rated as "high" at the time of designation. In 2012, almost 20 years after being deferred, the Lost-Floras sub-watershed was re-evaluated and the BLM found that the Lost-Floras deferral area has experienced substantial vegetative recovery and was removed from deferral status as long as a set of special management practices are followed (USDI 2012, p. 15). Proposed projects in the Lost-Floras sub-watershed were designed to meet the recommendations in the Lost Creek/Big Butte Creek Watershed Deferral Status Report (USDI 2012b) (EA, p. 2-3). OHVs were not identified as an issue in the Lost-Floras sub-watershed. Timber harvest proposed in this project in the Lost-Floras sub-watershed would not affect peak flows or water quality which would not increase cumulative effects in this sub-watershed (EA, pp. A-9 to A-16).

Comment 19: It was unclear if the Taggart Hazard Tree Reduction; Baker Cypress Restoration; and Vine Maple Blowdown Salvage Projects have been completed and what the effects on those landscapes will be.

BLM Response: All of these projects were listed under Ongoing and Reasonably Foreseeable Actions occurring on BLM-administered lands (EA, p. 3-3). The Taggart Hazard Tree Reduction Project is planned to occur this summer (2016). The Baker Cypress Restoration Project has not yet occurred; it is planned to occur this fall/winter (2016) during the rainy season. The Vine Maple Blowdown Salvage Project is planned to occur this summer (2016). These actions, and their effects, were considered, when the potential for cumulative effects was identified (EA, p.3-19, 3-38, 3-39, 3-48, 3-49, 3-56, 3-59, 3-70, and 3-71.

Insects and Forest Pathogens

Comment 20: A proper NEPA analysis would include detailed and site-specific analysis and discussion of disease, mortality, fire risk and stand structure that is informed by peer- reviewed science and agency experts in those areas.

BLM should examine, incorporate, and respond to all of the relevant peer-reviewed citations regarding insects and disease contained in the Xerces Report (Black 2005), we especially highlight four papers for your consideration.

BLM Response: *Chapter 3.2.5 Forest Environment* within the Lost Creek Forest Management Project EA includes the discussion and analysis by expert agency personnel of the current conditions (affected environment) and environmental consequences of the proposed actions for insects and disease, fire risk, mortality, and stands structure among other resource values and articulates the Purpose and Need for Actions in the project area. Additionally those observations and stand inventories are analyzed in detail beginning on page 3-12 through standard stand level metrics (i.e. Trees per acre, basal area, quadradic mean diameter. This was done using widely accepted and peer reviewed growth and yield modeling (ORGANON) techniques against a baseline (no action) for two action alternatives over a planning horizon (30 years). Assumptions and potential treatment trajectories are informed by numerous citations of scientific peer reviewed literature (i.e. page 3-8 DeMars and Roettgering 1982, Goheen 2010).

The level of detail to which we have analyzed the impacts of treatment is suitable to the level to which we are addressing insects and pathogens currently affecting stands in the Analysis Area and the basic characteristics and impacts of beetles, pathogens, and mistletoe have been provided. A greater occurrence and level of severity would warrant further examination and analysis but this is not currently the case. Furthermore, none of the proposed treatments aim to eradicate these biotic factors. The only treatment that addresses insects or pathogens is the removal of individual trees infected with dwarf mistletoe in order to control the spread of this pathogen and improve forest health. The selective nature of this treatment makes a site-by-site analysis infeasible, as treatment is projected to have similar impacts across all treated stands. Generalized, but informed, assumptions of the effects of the proposed treatment on forest health and stand structure are sufficient to address the intent of a proper NEPA analysis. Page 3-9 in the Insects and Disease section and page 3-14 in the Alternative 1- No Action section of the EA describe the characteristics of dwarf mistletoe and its adverse impacts on tree health, which includes decreased growth and vigor. Several citations have been given that support these claims.

The link provided for the Xerces Society report (Black 2005) did not work and the four papers highlighted for our consideration were not provided; therefore, these papers were not addressed

further. However, the BLM has responded to Black 2005 in the past and the applicability of the report is summarized as follows:

The 2005 Report *Logging to Control Insects: The Science and Myths Behind Managing Forest Insect "Pests",* also known as the Black Report, was reviewed by Forest Health Protection Entomologists from Region 6 of the Forest Service in November 2005. This review uncovered many problems placing in question the scientific credibility of the report. Their findings summarized:

> While the report summarized 177 published reports concerning the effects of logging, thinning, and other stand management techniques on conifer attack and mortality primarily caused by bark beetles or defoliating insects, the report itself has not been published in a journal nor did it appear to be peer-reviewed.
>
> The author failed to define the terms "logging" and "thinning" leading to statements that were not well supported by the literature cited in the report.
>
> One key finding of the Black Report that "there is no evidence that 'logging' can control bark beetles or forest defoliators once an outbreak has started" is generally accepted by most scientists and foresters (even though the author did not define the terms logging or control). However, the bulk of the literature cited by the Black Report does support thinning overly dense forests before, rather than after, an insect outbreak has occurred as one of the best methods for reducing infestations and preventing mortality caused by bark beetles on residual trees should an infestation occur.
>
> While the Black Report contains many generalities that are accepted by most scientists and foresters, there are many statements within the report that are taken out of context, misleading, and simply not true or supported by the literature cited in the report. The authors of the review go on to list specific examples of errors. Forest Service entomologists concluded that the report contained many erroneous statements that were not even supported by the report's cited literature.

The Black report was reviewed by BLM silviculturists who concur with the findings reported by the Forest Service entomologists. The Black report does not support the claim of scientific controversy, rather many papers cited in the report support BLMs approach to managing forests to prevent bark beetle epidemics.

Comment 21: Please note that page 3-8 of the Lost Creek EA acknowledges that Douglas-fir and flat-headed wood borers are only "causing mortality in small pockets." Hence, the BLM cannot point to a pressing need to treat insects….analysis of the No Action Alternative indicates that creation (rather than avoidance) of small mortality pockets is necessary for stand heterogeneity and movement towards late-successional forest character.

BLM Response: Page 1-3 of the EA identifies one Purpose and Need for the Lost Creek Project is "to promote tree survival and growth to improve the vigor, resiliency, and stability of forest stands…". This need statement does not explicitly "point to a pressing need to treat insects." However, the EA does acknowledge that insects and disease are a necessary ecosystem function and are two of many components in this dynamic ecosystem that could, if left unchecked, compromise the vigor, resiliency and stability objectives identified for the forest stands in the Project Area (p. 3-8). There are no proposed prescriptions that are specifically designed to "sanitize" insects and disease from stands proposed for treatment in the Lost Creek Project Area.

The analysis of the No Action Alternative beginning on page 3-12 contains no statements related to the "creation (rather than avoidance) of small mortality pockets is necessary for stand heterogeneity and movement towards late-successional forest character." It clearly states "the No Action Alternative would not meet the stated need to maintain and promote vigorously growing conifer forests, reduce tree mortality, and provide timber resources in accord with sustained yield principles, on BLM-administered **Matrix** lands with the Lost Creek Project Area."

Comment 22: Proposed logging activities may *increase* the impacts of existing pathogens….The BLM Lost Creek timber sale will create and exacerbate disease vectors. The timber sale will disturb forest structure and individual trees, will scuff leave trees and create stumps, will facilitate multiple logging entries, will establish new roads, skid trails and landings, will compact soils and will create logging slash. None of these factors are mentioned, analyzed or considered in the Lost Creek EA's bold assertions that logging is required to save the forest from insects and disease.

BLM Response: The Purpose and Need section of this project does not state that "logging is required to save the forest from insects and disease." Rather, the EA identified the need for treatments to 1) create favorable conditions to improve individual tree health; 2) promote the growth and establishment of tree species that are well adapter or resilient to environmental conditions and natural disturbance regimes; and 3) reduce the risk of [NSO] habitat loss from wildfire, disease and insects (p. 1-3).

The creation and exacerbation of disease vectors due to cut or damaged trees is not likely to be a chronic problem but nevertheless damage to residual trees may occur. While damaged trees are more susceptible to infection and infestation, large scale populations/occurrences of insects and pathogens have not been identified in planning areas and because logging systems are designed to minimize damage to residual trees the threat of insect and pathogen proliferation can be expected to be low. The project integrates several components to address and minimize the potential adverse impacts of the logging activities including the spread of pathogens. One example is PDFs that are carried forward into contracts for timber harvest treatments (see Objective 2 in *section 2.5.2* and Objective 2 in *section 2.5.3* under *Project Design Features*). They are specifically designed to minimize the impacts of logging operations on residual stand structures and individual trees. Additionally within *section 3.2.7* the *Environmental Consequences* section shows that the No Action Alternative as compared to the Proposed Action (Alternative 2) and Alternative 3 would not increase overall stand vigor and resilience to insect and disease outbreaks. Therefore, the susceptibility to insects and disease, under most circumstances, will not be reduced. (See the *Landscape Pattern* discussion on page 3-11 of the EA for an explanation of the effects of high stand density on tree health and vigor).

Soils

Comment 23: The Lost Creek EA fails to disclose or analyze the location or number of skid trails and log landings.

BLM Response: The EA did identify proposed new landings (log, helicopter, and service) and pre-designated skid trails (Table 2-1, p. 2-15), and their locations were displayed on Maps 1 to 12.

Comment 24: The EA contains no actual data, analysis or quantification concerning direct and cumulative impacts to soil resources from past and proposed BLM logging activities in combination with adjacent private industrial lands clear cutting.

BLM Response: An interdisciplinary team identified relevant issues to be addressed during the environmental analysis. Other issues that were considered but not analyzed in detail, often because the

project's design or implementation of PDFs would eliminate or reduce effects on the resource, were documented in Appendix A of the EA (p. 1-10).

The BLM considered but did not analyze in detail two issues related to soil resources; potential impacts to soil productivity and to slope stability, particularly on pyroclastic fragile soils. The rationale for not analyzing these issues in detail was included on pages A-22 to A-29 of the EA.

A cumulative impact is "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" (40 C.F.R. 1508.7). No direct or indirect impacts are anticipated beyond what was analyzed and accounted for in the Final EIS for the Medford District ROD/RMP; or, the potential for impacts was eliminated through project design or the implementation of PDFs. Therefore, there is no potential for cumulative effects, or no cumulative effects anticipated beyond what was already accounted for in the FEIS for the Medford District ROD/RMP (EA, pp. A-24 and A-29).

Comment 25: As disclosed on page A-27 of the EA the BLM has elected not to implement the requirement of the Medford RMP that it "avoid tractor yarding" on fragile soils and instead is proposing 73 acres of ground-based tractor yarding on fragile soils with mass movement potential in violation of the direction provided by the RMP. Similarly, rather than "avoid" new road construction on fragile soils as directed by the RMP, BLM intend to construct 0.32 miles of new logging roads on fragile soils and build 8 new landings in which the effects to "unstable slopes are very similar to roads" on known fragile soils in violation on the Medford RMP.

Comment 26: Ground based yarding on pyroclastic soils should be avoided. Use another type of yarding system on these soils. Slope should not be the only criteria to dictate yarding systems.

BLM Response to Comments 25 and 26: Page A-27 of the EA also states that ground-based (tractor) yarding is only proposed in soils that would not result in instability. The EA further explains that "All areas of instability were avoided when planning forest management activities. If any unstable areas are found during the layout of this project, or at any other time, unstable sites would be buffered out of the units. BMPs were incorporated into the project design; many proposed routes and treatment units were dropped due to unstable slopes or changed to helicopter yarding (Meredith 2016) (p. A-29).

The EA (p. A-29) stated that Extensive field review was completed during project planning and prior to analysis to identify unstable areas due to the nature of the soils and/or the slope. Temporary route construction is proposed on FP soils; however, the routes are located on stable positions. PDFs were further incorporated to decrease the risk of slope instability from project activities. The EA adequately concluded that slope instability is not likely to occur due to the design of the project.

Regeneration Logging, Plantation Establishment and Fire Hazard

Comment 27: Implementation of regeneration logging proposed in Alternative 2 will directly undermine the fire resiliency goals identified in the project purpose and need…. The practice of converting native forest stands into young tree plantations significantly increases fire hazard in the mid- to long-term. Tree plantations are more susceptible to intense fire behavior and severe fire effects than unlogged mature forests, including burned forests (DellaSala et al. 1995, Odion et al. 2004). (KS WILD pg. 14) The proposal to include regeneration logging in the Lost Creek project area will increase fire hazard which necessitates completion of an EIS.

BLM Response: The EA addressed the impacts of regeneration harvest on fire hazard (p. A-8). For five to twenty years following planting, the overall fire hazard would increase in stands where regeneration

harvest is proposed. The increase of fire hazard in stands proposed for regeneration harvest would be negligible at the Project Area scale; approximately 30 acres would be managed as a regeneration harvest, which represents 0.00007% of lands in the Project Area. The completion of an EIS is not needed as there is no potential for significant impacts.

Comment 28: Marking Guidelines- pgs B-9/B-10: The information on these pages indicates Regeneration Harvest for Alternative 3 only. Maps show these units to be in Alternative 2(Map 4/Map 7). Also see pg.2-15/Table 2.1.

BLM Response: Thank you for pointing out the error. Regeneration harvest is only proposed in Alternative 2, not Alternative 3

Future Snag Reduction

Comment 29: What is the reduction in large snag/down wood supply over time (beginning with this logging project)? ….OSHA standards may require the felling of significant numbers of occupied wildlife snags. The impacts of such felling is neither disclosed nor analyzed in the EA.

BLM Response: Unique stand features such as snags, coarse woody debris, large hardwoods, and trees exhibiting old-growth characteristics would typically be retained to maintain desired structural components for wildlife (EA, pp. 2-6, 2-7, 2-9, 2-18,2-19, 2-28, B-2, B-3, B-6, B-8). Any snags felled for safety reasons would be left on site (EA, pp. 2-19, B-2, B-9,).

The Medford District ROD/RMP direction is to provide a renewable supply of large down logs well distributed across the Matrix lands in a manner that meets the needs of species and provides for ecological functions. Down logs will reflect the species mix of the original stand. Models were developed for groups of plant associations and stand types that can be used as a baseline for developing prescriptions.

The EA, Appendix B also identified that the following would occur:

- To meet the Medford District ROD/RMP guidelines, leave a minimum of 120 linear feet of logs per acre greater than or equal to 16 inches DBH and 16 feet long (120 linear feet is equivalent to 7.5, 16-footlogs (EA, p. B-13).
- Leave a minimum of two snags per acre in Regeneration Harvest units. For these units, a snag is defined as any standing dead (stages 1 and 2), partially dead, or defective tree (Table B-12). In all other harvest prescriptions, existing snags (stages 1–5) would be retained except those that need to be felled for safety or logging system purposes (EA, p. B-14).

How Many Trees of What Diameter Classes Will Be Removed

Comment 30: Please estimate the number mature trees (20-30” dbh) and the number of “old growth” trees >30” dbh that would be logged from each unit….report the pre- logging number of trees in these size classes and the post-logging number and size of trees in these size classes….the data is available for NEPA purposes and the BLM is required to disclose for comment and analysis *prior* to issuing the decision to implement the project….In our scoping comments we asked how many large diameter trees (greater than 21” inches dbh) are proposed for logging? The BLM neglected to respond to this request in its Environmental Assessment.

BLM Response: The EA addresses this comment in *Appendix A – Issues Considered but Eliminated from Detailed Analysis, p. A-36* as follows:

The environmental assessment has three defined functions. (1) It briefly provides sufficient evidence and analysis for determining whether to prepare an EIS; (2) it aids in an agency's compliance with NEPA when no EIS is necessary, i.e., it helps to identify better alternatives and mitigation measures; and (3) it facilitates preparation of an EIS when one is necessary (40 CFR §1508.9(a)). The BLM has disclosed in the EA the relevant and applicable information available to the agency. Information regarding the number and location of trees that would be marked for harvest does not become available until after the analysis is completed, and the stands are marked and cruised. Furthermore, there are no requirements that mandate the BLM to disclose the precise number of trees to be harvested of any diameter. Public disclosure and Agency consideration of the exact number of trees to be harvested is not necessary for a reasoned choice among alternatives for a project where the objectives are to manage a landscape, not individual trees. The EA contained the information on the current stand condition, and explained how the proposed treatments would affect the stands relative to the goals set out in the RMP and the stated Purpose and Need of the Project.

Appendix B - General Guidance Applicable to all Silvicultural Prescriptions (Marking Guidelines) of the EA contains more information regarding marking larger trees.

Neotropical Migratory Birds

Comment 31: The Lost Creek EA failed to fully analyze and disclose the potential impacts of conifer thinning operations and brush removal on neotropical bird population trends.

The BLM failed to adequately respond to our request to develop and implement seasonal operational restrictions to avoid project impacts while land birds are nesting in the project area.

BLM Response: The EA did evaluate the potential effects of the Project on migratory birds and determined that there was no potential for adverse effects with the Implementation of PDFs (pp. A-34 to A-35). The EA states that "the following bird species have been located, or are likely present, within the Project Area: Olive-sided Flycatcher (BCC), Purple Finch (BCC), Rufous Hummingbird (BCC), Northern Goshawk (BCC), Band-tailed pigeon (GBBC), Willow Flycatcher (BCC).

The BLM has issued interim guidance for meeting BLM's responsibilities under the Migratory Bird Treaty Act and EO (Executive Order) 13186. Both the Act and the EO promote the conservation of migratory bird populations. The interim guidance was transmitted through IM (Instruction Memorandum) No. 2008-050. The IM relies on two lists prepared by the U.S. Fish and Wildlife Service in determining which species are to receive special attention in land management activities; the lists are *Bird Species of Conservation Concern* (BCC) found in various Bird Conservation Regions and *Game Birds Below Desired Condition* (GBBDC). In December 2008, the US Fish and Wildlife Service released *The Birds of Conservation Concern 2008*(USDI FWS 2008b). This publication identifies species, subspecies, and populations of migratory and non-migratory birds in need of additional conservation actions, updating the April 2008 Birds of Conservation Concern List. This list meets US Fish and Wildlife Service mandates for the conservation of migratory non-game birds (EA, p. A-34).

Additionally, the US Fish and Wildlife Service and the BLM signed a Memorandum of Understanding in April 2010 that identified strategies to avoid or minimize adverse impacts on migratory birds. The Lost Creek Forest Management Project would follow these guidelines to reduce the impacts to migratory birds For example, many of the PDFs, such as seasonal restrictions, that minimize effects to some wildlife species would also benefit migratory birds (EA, p. A-34 to A-35).

Aquatic Conservation Strategy

Comment 32: The Lost Creek EA failed to fully analyze and disclose the impacts of road construction, landing construction, timber haul and soil compaction on peak flows, flow timing, and sediment loading.

BLM Response: The Lost Creek EA analyzed and disclosed the impacts from proposed management actions on peak flows, flow timing, and sediment loading in the analysis on the attainment of Aquatic Conservation Strategy (ACS) objectives (Issue 5, EA pg. 3-53).

The analysis of ACS objectives considered the following forest management activities: Density Management, Selective Thinning, Regeneration Harvest (NGFMA and Structural Retention), Small Diameter Thinning, Understory Reduction, and slash disposal activities, such as piling and burning. Proposed transportation management projects include temporary route construction and reconstruction; road reconstruction and renovation along haul routes; roadside vegetation maintenance; partial and full road decommissioning; and pre-designated skid trail and landing construction. Water source (a.k.a. pump chance) and meadow restoration are also proposed (EA pg. 3-59).

The current sediment regime would be maintained because Riparian Reserves would continue to filter sediment and protect aquatic systems from additional sediment loads that may result from proposed management actions (EA pg. 3-62).

The sediment regime would be maintained in the short-term as a result of road renovation, reconstruction, and decommissioning, although small amounts of sediment could be mobilized and transported to streams when the work begins. There would likely be a small amount of fine sediment entering stream channels in the Project Area from timber hauling. Sediment inputs would be minor relative to existing sediment levels (EA pg. 3-62).

The current sediment regime would be maintained and slightly improved as a result of 96.57 miles of proposed road renovation, 0.34 miles of road reconstruction, and 4.69 miles of full and partial road decommissioning. The volume of sediment would be reduced locally as a result of adding crushed rock to roads identified for renovation/reconstruction (EA pg. 3-62).

Riparian Reserves throughout the Project Area would continue to function. Patterns of sediment, nutrient, and wood routing would not be changed. The project would not diminish large wood recruitment, alter the flow regime, reduce flood-prone areas, or impinge on watershed function (EA pg.3-63).

The Round Mountain Creek drainage in the Project Area currently has a potential risk for peak flow enhancement. Alternative 2 would not increase the risk for peak flow as a result of timber harvest because there would be no treatments that would result in crown closure of less than 30% within the transient snow zone. Within the Round Mountain Creek drainage, nine acres would be thinned using a Selective Thinning prescription, which would retain 40% or greater crown closure. The amount of area in the transient snow zone with less than 30% crown closure would remain at 34% after timber harvest in the Round Mountain Creek drainage. Regeneration harvest on 30 acres would result in crown closures below 30% outside of the transient snow zone. The two units of regeneration harvest (15 acres each) are proposed in the rain dominated zone. The location in the rain zone and relatively small acreage of these two units would be a low risk to affect instream flows. There would not be an increase

in peak flows to cause erosion to stream channels and therefore there would be no risk of sedimentation to fish habitat downstream (EA pg.3-63).

Lost-Floras Deferred Watershed

Comment 33: It does not appear that a public NEPA process was conducted to remove the deferred watershed status or that the increased cumulative impacts of private land logging or ORV use on BLM lands has been analyzed or disclosed.

BLM Response: The analysis of the Lost-Floras deferred watershed was completed in 2012 through RMP plan maintenance. Maintenance actions are not considered a plan amendment and do not require the formal public involvement and interagency coordination process undertaken for plan amendments (Plan Maintenance 2012).

The BLM established watershed deferrals with standard land use allocations in 1995 as part of the Medford District Record of Decision and Resource Management Plan (USDI 1995). The Lost-Floras sub-watershed is one of the areas identified for deferral from management activities, including timber harvest for 10 years starting in 1993 (USDI 1995, pp.42-43). Areas that were deferred had cumulative effects generally rated as "high" at the time of designation. In 2012, almost 20 years after being deferred, the Lost-Floras sub-watershed was re-evaluated and the BLM found that the Lost-Floras deferral area has experienced substantial vegetative recovery and was removed from deferral status as long as a set of special management practices are followed (USDI 2012, p. 15). Proposed projects in the Lost-Floras sub-watershed were designed to meet the recommendations in the Lost Creek/Big Butte Creek Watershed Deferral Status Report (USDI 2012b) (EA pg. 2-3).

Private land logging and the additional impacts the proposed project would have on these watersheds was considered in the analysis on peak flows under Issue I (EA Appendix pg. A-13) and in the Lost-Floras Special Management Watershed under Issue P (EA Appendix pg. A-29). OHV use on BLM lands was considered under Issue W (EA Appendix pg. A-35).

Comment 34: The significant proposed impacts must be documented in an EIS prior to conducting tractor yarding in a deferred watershed.

BLM Response: Tractor yarding was considered in the Lost Floras Special Management Watershed and the attainment of meeting the special management practices would not be affected by including the use of existing skid trails where possible (EA Appendix pg. A-30).

The impacts of tractor yarding on soil productivity are expected to be within the range of anticipated effects identified in the Final Environmental Impact Statement (FEIS) for the Medford District ROD/RMP (USDI 1994, pp. 4-12 through 4-16), which accounted for soil compaction on up to 12% or less of the treatment unit (EA Appendix pg. A-24).

Machine Piling

Comment 35: The Lost Creek EA fails to disclose the location and impacts of machine piling….the effect of burning 8 foot by 10 foot slash piles (created by machine piling) on leave tree mortality is not disclosed or analyzed in the EA despite the fact that large pile burning has contributed to Medford BLM failure to meet canopy retention goals in the recent past.

BLM Response: The Lost Creek Forest Management Project EA does address machine piling by utilizing PDF's to limit the amount of compacted soil through restricting non-harvesting mechanized equipment to existing skid trails (EA, pp. 2-11 and 2-21). Because these PDFs for the piling are the

same as tractor yarding and because the operations would occur over the same ground, no additional soils effects were anticipated than were described for tractor yarding.

Because fuel loading would not be known till after harvest, it is not realistic to specify the amount and location of fuel treatment. An assessment of fuels would occur within each unit post-harvest (EA, p. 2-11). However, the EA does specify that machine piles would be dispersed across treatment areas and located as to minimize potential impacts to the residual stands. The piles would be burned when soil and duff moisture content is high to prevent spread as well as prevent scorching in residual trees (EA, p. 2-26 to 2-27). Utilizing these PDFs there were no anticipated effects that would cause canopy retention goals from being met within the proposed treatment areas.

Hardwood Retention

Comment 36: It is unclear why the BLM is proposing to remove hardwoods up to 12" in diameter in understory reduction logging units…. Please consider and implement an alternative that retains hardwoods greater than 8" inches DBH.

BLM Response: The identified silvicultural objectives for Understory Reduction (UR) units are presented on page 2-10 of the EA. The ability to thin hardwoods up to 12 inches is not intended to remove all hardwoods under 12 inches but rather to provide flexibility for implementation to maximize the identified objectives for UR treatments. Additionally, the document specifically states that "Understory Reduction is also used in stands where pine and shade-intolerant hardwood species are diminishing in vigor due to stand density issues." An alternative that would retain hardwoods 8 inches and greater would not allow for the flexibility needed to meet prescription objectives. The EA has adequately addressed the impacts of implementing Understory Reduction treatments (see Chapter 3 of the EA).

Recreation

Comment 37: The BLM erred in not formally analyzing project impacts on recreation as a significant issue in the Environmental Assessment…. The BLM has failed to analyze or disclose the likely impacts of logging on high use sites to members of the public…. BLM has failed to analyze or disclose the impact of trail and campground closures.

BLM Response: The BLM adequately addressed the impacts to recreational activities from timber management and road activities. The EA concluded that impacts to developed and dispersed recreation would be low due to the implementation of PDFs (EA, pp. A-21 & 2-23).

Furthermore, the BLM coordinated with the Army Corps of Engineers to design the PDF's to further reduce impacts to recreational users. PDF's were modified to further restrict harvest activities during the busy recreation season as well as to improve public safety (DR, p. 5).

Comment 38: The EA fails to fully analyze the impacts of logging proposed on what appears to forests managed by the Army Corps of Engineers associated with the Lost Creek Reservoir…. Impacts to Army Corps Land primarily managed for recreation is not adequately analyzed or disclosed in the EA.

BLM Response: The proposed treatment units on lands managed by the Army Corps of Engineers are located on BLM-administered lands that were withdrawn under Public Land Order 5105 from the BLM for construction of the Lost Creek Reservoir. A memorandum of understanding (MOU) was entered into by the BLM and Army Corps of Engineers to develop rules and regulations for the

management of the withdrawn BLM-administered lands. Through the MOU the BLM reserved the rights to the vegetative resources on these withdrawn lands.

The BLM acknowledged the importance of recreation management around Lost Creek Lake and developed PDFs that would minimize impacts to the recreating public as well as provide for public safety (EA, p. 2-23, DR, p. 5).

Transient Snow Zone

Comment 39: The literature downplays this [transient snow zone] risk by listing only one drainage where this might be a problem.

BLM Response: The issue of timber harvest affecting the risk of peak flow events in the transient snow zone was considered but eliminated after the analysis indicated that the proposed actions would not affect peak flows or have the potential to increase the risk for peak flow (EA, p. A-16). The EA explains that "there would be no treatments in the transient snow zone that would result in crown closures of less than 30%. Regeneration Harvest is the only prescription proposed that would reduce canopies to below 30% and this prescription is not proposed in any stands within the TSZ. The amount of area in the TSZ with less than 30% crown closure would remain at 34% after timber harvest in the Round Mountain Creek Analysis Area. There would not be an increase in peak flows to cause erosion to stream channels and therefore there would be no risk of sedimentation to fish habitat downstream" (p. A-16).

Terrestrial Wildlife

Comment 40: There was no mention of the Red Tree Vole or the Siskiyou Mountain Salamander in the EA. Were these species not on the BLM special status species list?

BLM Response: The Project Area is outside of the known range of the red tree vole and historic surveys have not detected red tree voles within the Project Area. Siskiyou Mountain Salamanders have not been detected within the Butte Falls Resource Area.

The EA acknowledged on p. A-32 that the red tree vole is not suspected to to be present in the Lost Creek Project Area based on habitat types, field survey data, and/or literature reviews. For that reason, this species was not evaluated any further.

The Siskiyou Mountain Salamander has not been detected within the Butte Falls Resource Area. Only Special Status Species and Survey and Manage species known or suspected to be present in the Analysis Area were addressed in the EA.

Comment 41: How large are the buffers for Raptors? Will they have a prey base?"

BLM Response: Effects to Special Status Species were adequately analyzed and disclosed to a level necessary to provide the decision maker with adequate information necessary to make an informed decision. The EA (p. 2-17) states to "Protect raptor species, if any are located. Apply the appropriate buffers and seasonal restrictions based on species, proposed treatment, site-specific environmental conditions, and protection recommendations as determined by the BLM wildlife biologist (Table 2-2)." Table 2-2 on Page 2-18 of the EA displays the buffers for certain Special Status (Bureau Sensitive) raptor species.

Only federally listed, Bureau Sensitive species, and Survey and Manage species known or suspected to be present within the Analysis Area and impacted by the proposed actions were addressed in the EA, which is consistent with BLM Manual 6840 - Special Status Species Management Policy. The buffer

distances used are consistent with both the Medford District Resource Management Plan and management recommendations for certain raptor species of concern.

EA and Contract Flexibility

Comment 42: We understand that the BLM must take necessary precautions to protect their resources; however, we believe that in many cases there are conditions that exist on the ground that are not in step with many of the restrictions described in BLM EA's and contracts (i.e. dry conditions during wet season, wet conditions during dry season). We would like the BLM to shift their methods for protecting resources from that of firm prescriptive restrictions to one that focuses on descriptive end-results; in other words, describe what you would like the end result to be rather than prescribing how to get there.

BLM Response: The BLM-administered lands are managed to maintain or restore healthy, functioning ecosystems from which a sustainable production of natural resources can be provided. The Medford District ROD/RMP identified a compilation of resource protection measures and BMPs (Best Management Practices). These resource protection measures (PDFs) and BMPs were included in the design of the Lost Creek Forest Management Project.

The BLM included these BMPs and PDFs to ensure the impacts of the project are within the analysis of the Medford District ROD/RMP. The BLM did not include unnecessary restrictions in the design of this project.

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