



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
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Grants Pass, Oregon 97526
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JUL 05 2016

1792 (ORM070)

DOI-BLM-ORWA-M070-2015-0009-EA

Dear Interested Party,

As the Grants Pass Field Manager, I have signed the Decision Record (DR) and the Final Finding of No Significant Impact (FONSI) for the Upper Cow Late Successional Reserve Project. The project is located within the Middle Cow Creek, Upper Cow Creek, and Days Creek-South Umpqua River watersheds. The Selected Action Alternative is a blend of Alternatives 2 and 3, and will be referred to as the Selected Alternative.

Forest management activities include:

- Active forest management of 750 acres within the Late Successional Reserve which includes treatment within Riparian Reserve;
- Construction of 0.60 miles of new temporary routes;
- Reconstruction/renovation of 1.3 miles of existing routes; and
- Maintenance of 48.5 miles of existing roads.

The activities associated with the Upper Cow Late Successional Reserve Project are analyzed in an Environmental Assessment (EA) (DOI-BLM-ORWA-M070-2015-0009-EA). The EA was made available on February 9, 2016 for a 30-day public comment period. The BLM's responses to public comments are included in Appendix C of the DR. The BLM considered these comments in reaching a final decision for the Upper Cow Late Successional Reserve Project.

You can review the DR and FONSI at the BLMs ePlanning site:

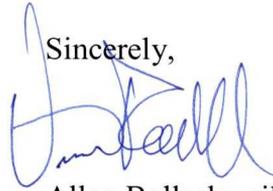
<http://tinyurl.com/BLMePlanning-UpperCow>. Hard copies of the DR and FONSI are also available at the Grants Pass Interagency Office, 2164 NE Spalding Avenue, Grants Pass, OR 97526. Office hours are Monday through Friday, 7:45 A.M. to 4:30 P.M., closed holidays. For additional information contact Ferris Fisher, Planning and Environmental Coordinator, at (541) 471-6639 or ffisher@blm.gov.

This is a forest management decision. Administrative remedies are available to persons who believe they will be adversely affected by the decision. In accordance with the BLM Forest Management Regulations (43 CFR § 5003.2(a)), the decision for this project will not become

effective, or be open to formal protest, until the first Notice of Sale appears in the *Grants Pass Daily Courier*, the *Medford Mail Tribune*, and the *Roseburg New Review* on July 7, 2016.

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 that are delivered to the Grants Pass Interagency Office will be accepted. 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.

Sincerely,



Allen Bollschweiler

Field Manager

Grants Pass Field Office

Acting

**FINDING OF NO SIGNIFICANT IMPACT
FOR THE
UPPER COW LATE SUCCESSIONAL RESERVE PROJECT
DOI-BLM-ORWA-M070-2015-0009-EA**

I. INTRODUCTION

The Grants Pass Field Office, Medford District Bureau of Land Management (BLM), Upper Cow Late Successional Reserve Project Environmental Assessment (EA) was made available for public comment from February 9, 2016 to March 10, 2016. The purpose and need of the project is to maintain and enhance late successional characteristics within the South Umpqua River/Galesville Late-Successional Reserve through the implementation of forest management activities which include thinning and prescribed fire. I have authorized elements of activities analyzed within Alternatives 2 and 3; hereafter referred to as the Selected Alternative. This decision incorporates associated Project Design Features (PDFs), Best Management Practices (BMPs), and seasonal restrictions. No permanent roads will be constructed as part of this project.

All proposed forest management activities are analyzed under the Upper Cow Late Successional Reserve Project EA (DOI-BLM-ORWA-M070-2015-0009-EA). There are no significant impacts beyond those analyzed in the 1994 Final Supplemental Environmental Impact Statement, the Proposed Medford District Resource Management Plan/Environmental Impact Statement and the 1995 Record of Decision/Medford District Resource Management Plan (1995 RMP/FEIS).

II. DETERMINATION OF SIGNIFICANCE

Chapter 3 of the Upper Cow EA discloses the effects of Action Alternatives 2 and 3. The Decision Record for the Upper Cow project discloses the Decision Maker's Selected Alternative.

The discussion of the following significance criteria applies to the intended actions and is within the context of local importance. None of the effects identified, including direct, indirect, and cumulative effects, are considered to be significant and do not exceed those effects described in the 1995 Medford District RMP/FEIS). The environmental effects of the Selected Alternative do not meet the definition of significance in context or intensity as defined in 40 CFR § 1508.27. Therefore, an EIS is not necessary and will not be prepared.

Context. The Upper Cow Late Successional Reserve Project will treat approximately 750 acres of forests under the Selected Alternative. The Planning Area contains a portion of the Upper Cow, Middle Cow, and Days Creek-South Umpqua Watersheds. The planning area for the Upper Cow Project is approximately 26,470 acres. The Selected Alternative will treat approximately 3% of the planning area. Local interests reside within Douglas and Josephine Counties. The Selected Alternatives does not have international, national, region-wide, or state-

wide importance.

Intensity. The following discussion is organized around the Ten Significance Criteria described in 40 CFR § 1508.27(b) as they pertain to the context of the Upper Cow Late Successional Reserve Project Selected Alternative.

1. Impacts that may be both beneficial and adverse. The most noteworthy predicted environmental effects of the Selected Alternative include:

a) Soil Erosion and Sensitive Soils. For this project, it was determined that little to no erosion would occur from individual units, landings, and crossings along haul routes in the direct/indirect effect analysis and no long-term or indirect effects were identified. In other words, no measureable sedimentation would occur above natural background levels described for the No Action Alternative for soils (EA, p. 107).

BMPs, and specific associated PDFs identified in Chapter 2.4, would result in no direct or long term input of sediment to streams and thus no Cumulative Effects to sensitive soils (EA, p. 107).

b) Fuel Loading and Fire Hazard. Wildfire presents the greatest risk of late-successional habitat loss in this Late Successional Reserve (BLM 1999b; LSRA p. 65; EA, p. 18). The treatments analyzed under the Upper Cow project are designed to reduce risk from large scale wildfires through the reduction of crown bulk density and the treatment of project created activity slash. The proposed treatments intend to create fire resilient stands by reducing surface fuels, ladder fuels, and crown density. Thinning, followed by sufficient treatment of surface fuels can reduce potential crown fire activity and increase stand resiliency to unplanned events (EA, p. 10). Understory Reduction treatments are designed to move these dry forest stands along a path to develop and retain ecosystem resiliency to adequately respond to whatever changes may occur (EA, p. 19). Trees to be removed for commercial harvest will be whole-tree yarded or yarded with tops attached to minimize activity slash remaining within the harvest units (EA, p. 20). Activity fuels will be assessed following treatment (EA, p. 16). Slash may be treated using one or more of the following actions: lop & scatter, hand pile & burn, chipping, and/or biomass utilization and maintenance underburning (EA, p. 16). Additionally, the project will apply prescribed fire in a manner that retains the amount of coarse woody debris determined to be appropriate for the site based on watershed analysis (RMP, p. 63; EA, p. 5). The implementation of PDFs listed in the EA on pages 33-40 would reduce fire hazard within treatment units. Any initial, short-term increase in fire hazard will not cause significant effects that require an EIS because these activities will be mitigated soon after implementing project activities through slashing, hand piling, pile burning, chipping, lop and scatter treatments, and broadcast burning. The analysis is consistent with the conclusions provided in the 1995 Medford RMP/EIS (EA, 61).

- c) **Water Quality.** For this project, it was determined that little to no sedimentation would occur from individual units, landings, and crossings along haul routes. In other words, no measureable sedimentation would occur above natural background levels described for the No Action Alternative. Therefore, no water quality measures would be negatively affected. Some short-term direct and indirect effects to water quality were identified due to pulse increases in sediment and turbidity from road work, generally during the first significant storm event of the wet season. While these effects from sediment could potentially occur, it would still remain within acceptable water quality limits for turbidity, and sediment loads would be difficult to distinguish from background levels (EA, p. 121).

No-treatment buffers (Environmental protection zones or EPZs), Best Management Practices (BMPs), and specific associated project design features (PDFs) identified in Chapter 2.4, will result in no direct or long-term input of sediment to streams and thus no Cumulative Effects to water quality. In addition to sediment filtering, the EPZs will also retain trees that contribute to the primary shade zone for streams, and thus maintain stream temperatures (EA, p. 121).

- d) **Soil Compaction and Productivity.** BMPs in the 1995 Medford District (p.166) describe the use of designated skid roads within stands to limit horizontal soil compaction to less than 12% of the harvest area. These activities will result in an estimated 30.7 acres of soil compaction and displacement over new and existing footprints and, thus reducing soil productivity by an estimated 1% in the PA. Total compaction / displacement associated with new and existing temporary routes, tractor skid trails, landings and cable yarding corridors will account for an average of approximately 2.9% per unit (based on horizontal distance). Each proposed harvest unit will be below 12% compaction and 5% productivity loss as analyzed in the 1995 Medford District RMP/FEIS. Units proposed for Understory Reduction will not contribute to soil compaction or productivity loss, since no extraction is proposed for these units (Erratum, p. 46).
- e) **Botany.** See 9 below.
- f) **Northern Spotted Owl.** See 9 below.
- g) **Red Tree Vole.** Oregon red tree vole (RTV) (*Arborimus longicaudus*) is a 2001 ROD Survey and Manage species (Category C, survey and manage known sites). RTV surveys were completed to protocol. All known active and associated inactive RTV nests located from protocol survey efforts have been buffered according to the RTV management recommendations (USDA USDI 2000). These buffers (Habitat Areas) removed approximately 191 acres from potential commercial harvest treatments (EA, p. 87). Therefore, no direct impacts to RTVs are anticipated as a result of implementing

the actions included under Alternative 2 (EA, pp. 11, 88).

For Alternative 3, all known active and associated inactive RTV nests located from protocol survey efforts have been buffered according to the RTV management recommendations (USDA USDI 2000). These buffers (Habitat Areas) removed approximately 120 acres from potential commercial harvest treatments. Therefore, no direct impacts to RTVs are anticipated as a result of implementing the actions included under Alternative 3 (EA, p. 88).

Because there are no direct impacts to RTVs associated with Alternatives 2 or 3, the Selected Alternative is not anticipated to result in effects to the RTV populations within the Upper Cow planning area.

h) Regional Ecosystem Office. Due to some of the treatment prescriptions described in Alternative 2, which include treating stands greater than 80 years of age and the cutting and limited harvesting of trees 20 to 25 inches in diameter, the BLM was required to request REO concurrence for the proposed exemption. The final BLM report, *Upper Cow Late-Successional Reserve Project; Proposed Exemption in the South Umpqua River/Galesville Late-Successional Reserve; November 2015*, was submitted to the REO on November 12, 2015. The BLM received formal concurrence with the proposal from the REO on April 13, 2016. With this REO concurrence, this Decision will authorize treatments in stands greater than 80 years of age and authorize the cutting and limited harvest of trees 20 to 25 inches in diameter.

2. The degree to which the selected alternative will affect public health or safety. Public health and safety would not be affected. The Selected Alternative is comparable to other projects that have occurred on the Grants Pass Resource Area with no unusual health or safety concerns. The planning area is not located within a Class 1 designated airshed or non-containment area (EA, p. 191). Activity fuel burning operations would follow all requirements of the Oregon Smoke Management Plan and the Department of Environmental Quality Air Quality and Visibility Protection Program, ensuring that smoke related impacts to public health and safety are mitigated (EA, p. 40). The impact of smoke on air quality is expected to be localized and of short duration. Particulate matter would not be of a magnitude to harm health, affect the environment, or result in property damage (EA, p. 191). The implementation of PDFs listed in the EA on page 40 will ensure protection of air quality within the planning area.

Water or approved road surface stabilizers/dust control additives will be applied to road surfaces during timber hauling when there is visible dust trail behind vehicles. Any dust created would be localized and of short duration. As such, the Action Alternatives are consistent with the provisions of the Federal Clean Air Act (EA, pp. 29, 191).

To caution forest road users of potential hauling and operational activities, warning signs will be placed where appropriate to satisfy Oregon Safety and Health Administration (OSHA) standards. The proper use and maintenance of the signs will be monitored using Oregon OSHA regulations (EA, p. 36).

Public health and safety will not be effected thus the impacts from implementing either Action Alternative will be insignificant.

- 3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wild and scenic rivers, or ecologically critical areas.** There are no eligible rivers under the Wild and Scenic Rivers Act of 1968, as amended, in the Upper Cow Project planning area. There are no Research Natural Areas (RNAs) or Areas of Critical Environmental Concern (ACEC) as designated by the Medford District RMP in the planning area. There are no park lands, prime farm lands, wetlands, or ecologically critical areas in the planning area (EA, pp. 191-192).

Recreational opportunities on BLM administered land within the planning area consists of dispersed camping and general forest recreation (EA, p. 193). With the implementation of PDFs listed on page 33 and 40-41 of this EA, there are no anticipated effects from the Selected Alternative (EA, p. 193).

- 4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.** The effects of Action Alternatives 2 and 3 on the quality of the human environment were adequately understood by the interdisciplinary team to provide analysis in the EA.

Public comments and input have been considered throughout the analysis for this project and the interdisciplinary team responded to those comments in Appendix B of the EA. The Action Alternatives analyzed in the Upper Cow Project are within the scope of effects identified in the 1995 Medford District RMP. The predicted effects of the Action Alternatives are disclosed in Chapter 3 of the EA. The interdisciplinary team utilized the best available science to determine the effects of the activities analyzed in Action Alternatives 2 and 3, as disclosed in Chapter 5, References. None of the comments were considered controversial in respect to their context and intensity in determining significance.

- 5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.** The effects of the Action Alternatives are not unique or unusual. The BLM has experience with similar forest management projects and have found the effects to be reasonably predictable. The environmental effects to the human environment are fully analyzed in Chapter 3 of the EA. Public concerns and input have been considered throughout the analysis; see Chapter 1.6 and Appendix B of the EA. The activities analyzed in the Action Alternatives are routine in nature, which includes

standard PDFs, BMPs, and seasonal restrictions. These effects are well known and do not involve unique or unknown risk to the human environment.

6. The degree to which the action may establish precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The Action Alternatives do not set precedent for future actions that might have significant effects nor do they represent a decision in principle about future considerations. The Action Alternatives adhere to the direction provided in the 1995 Medford District Resource Management Plan.

Chapter 1 of the Upper Cow Project EA identifies how Alternative 2 and to lesser degree Alternative 3 would be consistent with the Purpose and Need for the project and also describes how this project is in compliance with higher level EIS documents. Chapter 3 evaluates the effects of the No Action Alternative and Action Alternatives 2 and 3. The analysis contained within Chapter 3 discloses that all proposed activities would comply with the effects anticipated under the 1995 Medford RMP. Any future projects would be evaluated through the National Environmental Policy Act (NEPA) process and would stand on their own as to the environmental effects.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. The interdisciplinary team evaluated the Action Alternatives in the context of past, present, and reasonably foreseeable actions. Significant cumulative effects outside those already disclosed in the 1994 FEIS are not predicted. Complete disclosures of the effects of the Action Alternatives are disclosed in Chapter 3 of the EA.

The BLM anticipated that most project impacts on greenhouse gas levels and carbon storage would be negligible when placed in the context for analysis of global, regional, and continental scale (EA, p. 194). Therefore the Action Alternatives would not contribute to cumulatively significant impacts.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources. Cultural resource surveys were conducted within project units and no new sites were discovered that warrant protection. A total of 11 previously recorded cultural sites are located within the PA but none of these sites are near any project units, helicopter landing sites, or proposed temporary routes. Any known sites were excluded or avoided during the design of the project. To ensure protection of possibly undetected sites during project implementation the IDT designed PDFs, which direct operators to cease all operations immediately and contact the project archaeologist if unidentified cultural or paleontological resources are encountered. If cultural resources are discovered during project

implementation, the project would be redesigned to protect the cultural resource values present, or evaluation or mitigation procedures would be implemented based on recommendations from the Resource Area Archaeologist with input from federally recognized Tribes, approval from the Field Manager, and concurrence from the State Historic Preservation Office. Because of cultural resource surveys and PDFs the treatments proposed under the Action Alternatives will have no direct or indirect effects on heritage resources (EA, p. 129).

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

a) **Fish:** There is one federally threatened fish species that occurs within the PA, the Oregon Coast Coho Salmon. Stand treatments, yarding, landing construction and rehabilitation, temporary route construction and reconstruction (including route decommissioning), road maintenance, hauling, and activity fuel treatments would have no effect on OC Coho Salmon (ESA-Threatened) and designated Coho Critical Habitat (CCH). The closest CCH to any proposed treatment units is in Whitehorse Creek. Treatments in units 9-1 and 9-26 will be 120 feet from Whitehorse Creek, consistent with the EPZ established for treatments on any fish bearing stream. The PA haul routes cross fish bearing streams at several locations (Table 3.7-3). At the bridge crossing Cow Creek upstream of Galesville Dam (Road 32-4-1.0), OC Coho are present but CCH is not designated. At the culvert crossing on Blackhorse Creek (Road 32-4-15.0), OC Coho and CCH are present. Sediment would not be expected to enter CCH as a result of haul or maintenance of haul roads, with dry condition haul, properly functioning cross drains, and sediment barriers installed, where needed, to prevent sediment delivery into CCH. Project activities will follow all provisions of the Clean Water Act (40 CFR Subchapter D) and Department of Environmental Quality's (DEQ) provisions for maintenance of water quality standards (EA, pp. 126-127). No direct or indirect effects to fish and aquatic resources are anticipated as a result of implementing the actions proposed in Alternative 2 due to the implementation of BMPs and PDFs (EA, p. 129). No direct or indirect effects to fish and aquatic resources are anticipated as a result of implementing the actions proposed in Alternative 3. Because Alternative 3 does not allow for dry condition haul and harvest in certain areas the effects of Alternative 3 are anticipated to be less than those described in Alternative 2 (EA, p. 129).

The Selected Alternative applies BLMs, PDFs, and seasonal restrictions analyzed within the EA. The application of these design features provides protection for fish and aquatic resources. There are no direct or indirect effects anticipated from the implementation of the Selected Alternative.

- b) Plants:** Final units within the Upper Cow Project do not fall within the range of the four federally listed plants found within the Medford District (*Arabis macdonaldiana*, *Fritillaria gentneri*, *Limnanthes floccosa* ssp. *grandiflora*, and *Lomatium cookii*), as determined by the 2014 U.S. Fish and Wildlife Service (USFWS) Biological Opinion. However, final units were surveyed to the Service's protocol in the course of conducting surveys for Bureau Special Status species and various vascular plant surveys have occurred under the pretenses of other land management projects within the Upper Cow project perimeter have occurred since 1979, and no new threatened and endangered plant sites were found. There would be no anticipated effect from the Selected Alternative on any federally listed plant (EA, p. 131).
- c) Northern Spotted Owl (NSO):** Medford BLM submitted a Biological Assessment (April 11, 2016) and received a Biological Opinion (BiOp) (June 1, 2016) from the USFWS (Upper Cow-Lake Blowdown Projects Formal-TAILS #: 01EOFW00-2016-F-0246) for the Upper Cow Late Successional Reserve Project. The Biological Assessment evaluates the Upper Cow project and stated that the project "may affect and is likely to adversely affect the NSO and their designated critical habitat." Some of the proposed units are located in the 2012 revised designated NSO critical habitat. No other listed wildlife species or critical habitats are affected.

Medford BLM received a BiOp from the USFWS on June 1, 2016. The BiOp includes a finding that the Proposed Action is anticipated to have adverse effects to NSOs, but is not likely to jeopardize the NSO, and is not likely to adversely modify NSO critical habitat at the subunit or range wide scale (BiOp, p.62). Additionally, based on the findings in the BiOp, incidental take of listed species is not reasonably certain to occur; therefore, no incidental take statement is provided (BiOp, p. 63).

Spotted Owls

Northern spotted owls (NSO) are a federally listed threatened species and are closely associated with old forests for nesting, foraging, and roosting throughout most of their range (Forsman et al. 1984; Carey et al. 1990; and Solis and Gutierrez 1990). The ideal NSO habitat consists of large trees in the overstory, smaller trees of varying sizes and species in the lower and middle story, large standing and fallen dead trees, and patchy shrub and herb communities (Spies and Franklin, 1991; EA, p. 62).

During the development of the Action Alternatives, the IDT followed principles in the *Recovery Plan Implementation Guidance: Interim Recovery Action 10* (USFS/BLM/USFWS 2013; EA p. 12) while designing the proposed treatments. The occupational and reproductive histories of all the NSO sites within the PA were assessed based on the results of protocol surveys (EA, p. 68).

Based on survey results, all the NSO sites within the PA that exhibited a high rate of occupancy and reproductive success within the last five years were categorized as high value sites. NSO sites that did not have any pairs detected within the past 5 years were categorized as low value sites (EA, p. 12). The ranking of these NSO sites were then used during alternative development to inform treatment locations and intensity consistent with recommendations included in the “Restoring Dry Forest Ecosystems” section of the Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011, Section III, pp.32-38; EA, pp. 68-69).

As page 81 of the EA discloses, Alternatives 2 and 3 would have minimal negative impacts to the NSOs found within the PA given that:

- No treatments would occur within the nest patch area of any known NSO site;
- A maximum of 106 acres of Nesting, Roosting, and Foraging (NRF) habitat would be downgraded within two “low value” NSO sites at the home range scale;
- A very small amount (0.8%) of the total NRF habitat located within the PA would be negatively affected (downgrade or removal);
- The majority (89.8%) of existing NRF habitat within the PA would not receive any treatments; and
- The majority of the proposed treatments (84%) are designed to treat and maintain the functionality of the habitat where the treatment occurs and would not reduce the overall amount of NRF or dispersal-only habitat found within the PA.

Additionally, page 81 of the EA states, the Action Alternatives are expected to result in long-term beneficial effects to the NSOs found within the PA by:

- Reducing the risk of high-severity fire occurring within the treated areas and/or reducing the risk of high-severity fire occurring in high value habitat areas;
- Increasing growth and vigor of the trees and vegetation remaining within the treated areas; and
- Ultimately accelerating the development of the treated stands into more complex, structurally diverse forests in comparison to the No Action Alternative.

Effects of Barred Owl Competition with Northern Spotted Owls (Alternatives 2 and 3)

Available evidence suggests that the presence and distribution of barred owls may affect habitat quality for NSOs (Wiens 2012; Yackulic et al. 2013). Additionally, many studies suggest that the two species compete for resources and maintaining older, high quality forest habitat may help NSOs persist, at least in the short-term. There are no known forest conditions that give NSOs a competitive advantage over barred owls. While not common, Wiens (2012) did find NSOs and barred owls occupying the same territories concurrently. It is also not known if forest habitat removal directly results in a range expansion of barred owls (USFWS 2013; EA, p. 77).

Removal or downgrade of habitat reduces the overall amount of available habitat and can therefore increase competition between these two species as habitat becomes increasingly limited. The effect of the vegetative treatments included under Alternate 2 is expected to have an extremely limited effect on competitive interactions between these two species because at most a very small amount (106 acres, or 0.8%) of the overall available NRF habitat would be lost (removed or downgraded) as a result of project implementation. The effect would be further reduced because the habitat loss is spread throughout the PA in many small non-contiguous locations (EA, p. 77).

Spotted Owl Critical Habitat (CHU)

The Upper Cow planning area overlaps a portion of the Revised 2012 Critical Habitat for the NSO, specifically a portion of the KLE 2 Subunit of the Klamath East Habitat Unit (EA, p. 70). Under the Action Alternatives, a mixture of activities are proposed to occur within the Revised 2012 Critical Habitat for the NSO. All of these activities would occur within the KLE 2 Subunit of the Klamath East Habitat Unit. Table 3.3-7 describes the sub-set of the proposed treatments that would occur within the Revised 2012 Critical Habitat and what NSO habitat type they would occur in. As approximately 88% of the federal lands in the planning area are designated NSO CHU, the majority, but not all of the proposed treatments would occur within NSO CHU (EA, p. 81).

Under Alternative 2, a total of 1,233 acres of various treatment types would occur within designated NSO CHU (Table 3.3-7). Approximately 622 acres of various treatment types are proposed to occur within NRF habitat type located within CHU, of which 78 acres are anticipated to result in a NRF downgrade. Approximately 611 acres of various treatment types are proposed to occur within dispersal-only habitat type located within CH, of which 78 acres are anticipated to result in the removal of dispersal-only habitat. All other treatments proposed to occur under Alternative 2 within NSO CHU are specifically designed to treat and maintain the existing habitat condition where the treatments occur,

and would not alter the amount of habitat available within the CHU, nor adversely modify any of the Primary Constituent Elements within these treated areas (EA, p. 82).

The activities proposed in NSO CH under Alternative 3 are similar to those proposed under Alternative 2, but there would be less DM (decrease of 139 acres), slightly less RT (3 acres) and an increased amount of UR (70 acres). As the treatments are so similar, the effects discussed here are specific to Alternative 2, but similar effects are anticipated for Alternative 3, only at a slightly reduced level (EA, p. 82).

The 78 acres of NRF downgrade are spread among four treatment units: 1-1, 26-1B, 35-2 and 35-15. The downgrading of 78 acres of NRF habitat within NSO CHU would likely result in some short-term adverse impacts to this NRF habitat by decreasing flying squirrel abundance by removing mid-story and overstory structure from those acres (Wilson 2010, Manning et al. 2011), which could reduce NSO foraging opportunities. Also, reducing canopy over below 60% would likely introduce ecological edge effects to the affected stands as well as to adjacent stands of NRF habitat, extending the area of impact beyond the treated areas. However, even with the downgrade of 78 acres of NRF habitat and removal of 78 acres of dispersal-only habitat within the NSO CHU, the Action Alternatives would negligibly affect the intended conservation function of the KLE 2 Subunit of the Klamath East Habitat Unit because at the most (under Alternative 2), the proposed treatments would only result in a reduction of 0.14% and 0.09% of the available NRF and dispersal habitat respectively within the CH sub-unit KLE 2. In total, the maximum impact of all treatments proposed under any Action Alternative would impact 1.2% of the KLE 2 Subunit (EA, pp. 83-84).

Even though some adverse impacts are anticipated where NRF habitat is downgraded, the Action Alternatives are expected to result in long term beneficial effects to NSOs and the Revised 2012 CHU because the thinning treatments (VDT, DM, and RT) would accelerate the development of the relatively homogeneous stands toward late-successional habitat faster than if the stands were left untreated (Hayes et al. 1997). The proposed treatments would also increase survivability and vigor of more drought- or fire-tolerant species (pines, cedars, hardwoods) on ridge tops and in areas where site conditions do not favor Douglas-fir, or Douglas-fir is suppressing the occurrence of pines. The activities proposed under the Action Alternatives, especially the Understory Reduction treatments, would help reduce the likelihood of high severity fire occurring within the CH. The Fire Hazard Chapter (3.2) provides a detailed explanation and analysis on this topic. Specific to NSOs, this approach is supported by complex modeling procedures that indicate that active management of sites with high fire hazard was more favorable to NSO conservation over the long term (75 years) compared to no management (Roloff et al. 2012) (EA, p. 84).

As stated above, the Medford BLM received a BiOp from the USFWS on June 1, 2016. The BiOp includes a finding that the Proposed Action is not likely to adversely modify NSO critical habitat at the subunit or range wide scale (BiOp, p.62).

Pacific Fisher

The Pacific fisher (*Pekania pennanti*) was petitioned for listing as endangered or threatened under the Endangered Species Act on December 12, 2000. In 2003 the USFWS released their notice of 90-day petition finding and initiation of status review (USFWS 2003) and in 2004 published their Notice of 12-month petition finding, concluding that listing fishers as threatened was warranted, but was precluded by higher priority listing actions (USFWS 2004). Most recently, The U.S. Fish and Wildlife Service issued a proposal to list the West Coast Distinct Population Segment (DPS) of fisher as a threatened species under the Endangered Species Act (USFWS 2014). Until the final listing is issued by the USFWS in 2016, fishers remain a Candidate Species and a BLM Bureau Sensitive Species (EA, pp. 85-86).

The Medford BLM has conducted fisher surveys using baited camera stations over multiple survey seasons and has placed a total of nine camera stations (survey stations) within the immediate Upper Cow PA, and a total of 69 cameras stations within a 10 mile radius of the Upper Cow PA. None of these surveys have yielded positive detections of fisher within the PA. The closest photo documented fisher detection is over 30 miles to the southwest of the PA. The absence of detections from camera surveys, hair tubes, and reported potential sightings from BLM field personnel, indicates it is highly unlikely that a resident population occurs in the PA (EA, p. 86).

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment. The Selected Alternative does not violate any known federal, state, or local law or requirement imposed for the protection of the environment. Furthermore, the Selected Alternative is consistent with applicable land management plans, policies, and programs (EA, Chapter 1.5).

III. FINDING

I have determined that the Proposed Action does not constitute a major federal action having a significant effect on the human environment; an environmental impact statement is not necessary and will not be prepared. This conclusion is based on my consideration of the Council on Environmental Quality's criteria for significance (40 CFR §1508.27), with regard to the context and the intensity of the impacts described in the EA, and on my understanding of the project, review of the project analysis, and review of public comments. As previously noted, the analysis of effects has been completed within the context of the Medford District's Resource Management Plan and the Northwest Forest Plan. This conclusion is consistent with those plans

and the anticipated effects are within the scope, type, and magnitude of effects anticipated and analyzed in those plans. The analysis of project effects has also occurred in the context of multiple spatial and temporal scales as appropriate for different types of impacts and the effects were determined to be insignificant.



Allen Bollschweiler,
Field Manager
Grants Pass Field Office

7/6/16

Date

**DECISION RECORD FOR THE
UPPER COW LATE SUCCESSIONAL RESERVE PROJECT
ENVIRONMENTAL ASSESSMENT
DOI-BLM-ORWA-M070-2015-0009-EA**

**United States Department of the Interior
Bureau of Land Management
Medford District
Grants Pass Field Office**

I. INTRODUCTION

This Decision Record (DR) addresses forest management activities analyzed in the Upper Cow Late Successional Reserve Project Environmental Assessment (EA), DOI-BLM-ORWA-M070-2015-0009-EA. Activities analyzed in the EA are within the Late Successional Reserve and Riparian Reserve Land Use Allocation, under the Medford District's 1995 Resource Management Plan.

This DR authorizes forest management activities that protect and enhance conditions of late-successional and old-growth forest ecosystems (BLM 1995, pp. 21, 32; NWFP 1994b, p. B-1). The proposed treatments are designed to reduce large-scale disturbance and reduce the long-term risk to stochastic events within the Late Successional Reserve (LSR). Forest Management is appropriate at this time because many areas within this LSR are uniform in forest structure and lack the species/structural diversity, snags, and large woody debris that characterize a highly functioning LSR.

This DR authorizes elements of activities analyzed within Alternatives 2 and 3; hereafter referred to as the Selected Alternative. Forest management activities covered in this DR include:

- Active forest management of 750 acres within the Late Successional Reserve which includes treatment within Riparian Reserve;
- Construction of 0.60 miles of new temporary routes;
- Reconstruction/renovation of 1.3 miles of existing routes; and
- Maintenance of 48.5 miles of existing roads.

Project Design Features (PDFs), Best Management Practices (BMPs), and seasonal restrictions will be implemented with this decision and will be described below in this document.

The project area is located within Douglas County, Oregon. Units covered by this DR are within the Middle Cow Creek, Upper Cow Creek, and Days Creek-South Umpqua River Hydrologic Unit Code 10 watersheds. These watersheds drain into the South Umpqua River. BLM lands are intermixed with private and county lands, creating a mosaic of ownership patterns.

Appendix A contains a Unit Summary Table. Appendix B contains a detailed map.

II. PUBLIC INVOLVEMENT

A 30-day external scoping period for this project began on January 21, 2015 and concluded on February 20, 2015. The BLM mailed a project map and scoping letter to approximately 300 residents located within and adjacent to the Upper Cow Creek planning area. Additionally, the BLM published a notice of scoping in the Medford District BLM's *Medford's Messenger* during the spring of 2013.

The BLM hosted a scoping meeting on January 29, 2015 at the Azalea Grange, Glendale, Oregon. There were approximately 12 members of the public in attendance at the meeting. The BLM was invited to attend a community-hosted scoping meeting on February 12, 2015 at the Upper Cow Creek Community House Azalea, Oregon. There were approximately 30 members of the public in attendance.

On Saturday November 14, 2015 the BLM hosted a public field tour. There were approximately 12 attendees. The BLM provided the tour participants with an illustrated EA Reader's Guide – a succinct presentation of the information that is contained within the EA. This tour allowed members of the public to view proposed treatment units in the field prior to the release of the EA. Members of the IDT were present to discuss recommended treatments and answer public questions.

The BLM received a total of four scoping comment letters. Substantive comments were incorporated into the EA. BLM responses to the scoping comments are contained within Appendix B of the EA (EA, p. 166-184).

The BLM published a legal notice in the *Grants Pass Daily Courier* and the *Roseburg News Review* on February 9, 2016, advertising the release of the Upper Cow Late Successional Reserve EA. The EA was available for a 30-day public comment period, ending on March 10, 2016. The BLM received six public comment letters. The BLM responded to comments in Appendix C of this Decision Record. The BLM published a corresponding Reader's Guide to supplement the EA.

A legal notice advertising the first notice of sale and release of the Upper Cow Project Decision Record and Final Finding of No Significant Impact (FONSI) will appear in the *Grants Pass Daily Courier*, *Medford Mail Tribune*, and the *Roseburg New Review* on July 7, 2016. This advertisement initiates a 15-day protest period; for more information see section VI Administrative Remedies.

The legal notice, Reader's Guide, Environmental Assessment, FONSI, Decision Record, and a detailed map are available on the BLM's ePlanning website at:

<http://tinyurl.com/BLMePlanning-UpperCow>.

III. PLAN CONFORMANCE, CONSULTATION, COORDINATION & COOPERATION

Land Use Plan Conformance

The planning area associated with this Decision is within the South Umpqua River/Galesville Late Successional Reserve and Riparian Reserve LUAs as defined in the Northwest Forest Plan/Medford District Resource Management Plan, Record of Decision 1995. Management in this LUA specifically directs the Medford District to:

- Enhance and maintain conditions of late-successional and old-growth forest ecosystems, which serve as habitat for late-successional and old-growth forest related species including the northern spotted owl (NSO) (BLM 1995, pp. 21, 32; NWFP 1994b, p. B-1).
- Maintain late-successional forest ecosystems; protect them from loss and reduce the risk of severe impacts resulting from large-scale disturbances (such as fires and insect and disease epidemics) and unacceptable loss of habitat (RMP, p. 33; NWFP 1994a, p. B-1).
- Protect, manage and conserve federally listed species and proposed species and their habitats to achieve their recovery in compliance with the Endangered Species Act and Bureau Special Status Species policies (RMP, p. 49).
- Alternate access methods (such as helicopter logging) will be considered (RMP, p. 34).
- Perform road work to prevent road deterioration or failure and to prevent road generated sedimentation that exceed Oregon Department of Environmental Quality (DEQ) standards.
- Use existing roads to avoid increasing the quality of water and sediment transport to streams (RMP, p. 42);

Endangered Species Act, Section 7 Consultation

Northern Spotted Owl

Medford BLM submitted a Biological Assessment (April 11, 2016) and received a Biological Opinion (BiOp) (June 1, 2016) from the United States Fish and Wildlife Service (USFWS) (Upper Cow-Lake Blowdown Projects Formal-TAILS #: 01EOFW00-2016-F-0246) for the Upper Cow Late Successional Reserve Project. The Biological Assessment evaluates the Upper Cow project and stated that the project "may affect and is likely to adversely affect the NSO and

their designated critical habitat. Some of the proposed units are located in the 2012 revised designated NSO critical habitat. No other listed wildlife species or critical habitats are affected.

Medford BLM received a BiOp from the USFWS on June 1, 2016. The BiOp includes a finding that the Proposed Action is anticipated to have adverse effects to NSOs, but is not likely to jeopardize the NSO, and is not likely to adversely modify NSO critical habitat at the subunit or range wide scale (BiOp, p.62). Additionally, based on the findings in the BiOp, incidental take of listed species is not reasonably certain to occur; therefore, no incidental take statement is provided (BiOp, p. 63). The Biological Assessment and the BiOp will be posted on the Medford District internet site under Plans & Projects; Consultation and are contained within the Administrative Project Record.

Plants

Final units within the Upper Cow Project do not fall within the range of the four federally listed plants found within the Medford District (*Arabis macdonaldiana*, *Fritillaria gentneri*, *Limnanthes flocossa* ssp. *grandiflora*, and *Lomatium cookii*), as determined by the 2014 US Fish and Wildlife Service Biological Opinion (Tails # 01EOFW00-2014-I-0013).

Final Upper Cow units were surveyed to the USFWS protocol and no new threatened and endangered plant sites were found. There will be no anticipated effect from the Selected Alternatives on any federally listed plant (EA, p. 131).

Regional Ecosystem Office (REO) Review

Due to some of the treatment prescriptions described in Alternative 2, which include treating stands greater than 80 years of age and the cutting and limited harvesting of trees 20 to 25 inches in diameter, the BLM was required to request REO concurrence for the proposed exemption from the South Umpqua River/Galesville Late-Successional Reserve Assessment (LSR #RO223). The BLM held an initial coordination meeting with REO members on June 30, 2015 to provide the outline of the project proposal and obtain initial feedback. The final BLM report, *Upper Cow Late-Successional Reserve Project; Proposed Exemption in the South Umpqua River/Galesville Late-Successional Reserve; November 2015*, was submitted to the REO on November 12, 2015. The BLM received formal concurrence with the proposal from the REO on April 13, 2016. With this REO concurrence, this Decision will authorize treatments in stands greater than 80 years of age and authorize the cutting and limited harvest of trees 20 to 25 inches in diameter. The BLM report and the REO concurrence Memorandum are posted online at the Upper Cow ePlanning site and are contained within the Administrative Project Record.

Survey and Manage and Bureau Sensitive Species Compliance

This project is consistent with the 2001 Record of Decision (ROD) and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines.

Red Tree Vole (RTV)

Surveys for RTVs were conducted across the Upper Cow PA in locations that have proposed management activities that would trigger the need for pre-disturbance surveys and contain suitable habitat for RTVs (Huff et al. 2012). A total of 406 acres were surveyed for the presence of RTVs across the Upper Cow PA. These surveys detected 28 active nests and 33 inactive nests throughout the survey areas. All known active and associated inactive RTV nests located from protocol survey efforts have been buffered according to RTV management recommendations (USFS/BLM 2000). These buffers (Habitat Areas) removed approximately 191 acres from potential commercial harvest treatments (EA, p. 88).

Vascular Plants, Nonvascular Plants & Fungi

There will be no direct or indirect effects to documented Special Status (ISSSSP) or Survey and Manage (S&M) vascular or nonvascular species resulting from proposed activities because 1) relocatable sites with intact habitat within final planning units will receive protection buffers or be deferred from project activities, and 2) PDFs will reduce the risk of introducing or spreading noxious weeds during project implementation (EA, p. 136).

Based on the findings of past surveys, no Sensitive or S&M A or C fungi have been located within 14 miles of the PA. BLM does not anticipate direct or indirect effects to ISSSSP and/or S&M A or C sporocarps or mycelial networks for these reasons:

- the relatively young age of the stands;
- all but 7 (which will retain 30%) units will retain a minimum of 40% canopy cover, thus providing mycelial “hubs” throughout the units; and
- harvest activities would likely occur in some units when many species are dormant (dry season for fungi is generally July 1 – September 1).

No ISSSSP Sensitive Status or S&M vascular, nonvascular, or fungi species will trend toward listing (ISSSSP) or cease persisting (S&M) as a result of implementing the activities proposed in the Selected Alternative.

State Historic Preservation Office Consultation & Tribal Coordination

Tribal Coordination

The BLM sent Upper Cow LSR Project scoping letters to local federally recognized Tribes interested in Medford District BLM proposed projects. The Tribes included the Cow Creek Band of Umpqua Tribe of Indians, the Confederated Tribes of the Grande Ronde Community of Oregon, and the Confederated Tribes of the Siletz Indians of Oregon. These letters invited the Tribes to participate in meetings and or initiate formal consultation.

Although no Tribes expressed interest in formal consultation, the BLM continues to work with individual tribal governments to further identify and address Native American concerns and traditional uses of lands administered by the BLM (EA, pp. 142-143). This included sending EA release notification letters to the Tribes on February 4, 2016, as well as an upcoming Decision Record release notification letter.

State Historic Preservation Office

This project has been designed to adhere to the 2015 State Protocol agreement between the State Historic Preservation Office (SHPO) and the BLM. There are no cultural sites located near any project units, helicopter landing sites, or proposed route construction areas. Because the BLM designed the Upper Cow LSR Project to avoid and/or buffer all cultural sites, formal consultation with SHPO was not necessary (EA, p. 143).

IV. DECISION

Based on my review of the Upper Cow Project EA, best available science, public comments, and management direction contained within the Record of Decision and Standards and Guidelines of the Northwest Forest Plan (1994), Medford District Resource Management Plan and Record of Decision (1995), I have decided to authorize portions of Alternative 2 and 3, known as the Selected Alternative.

This Decision authorizes the commercial treatment of approximately 750 total acres within the Late Successional Reserve land use allocation, this includes the treatment of 93 Riparian Reserve acres (the 750 total acres include the 93 acres, it is not in addition to the 750 acres). Logging systems include 156 acres of tractor, 426 acres of cable, and 168 acres of helicopter yarding methods. To facilitate harvest activities 0.60 miles of new temporary route construction, 1.30 miles of existing route renovation/reconstruction, 0.70 miles of cable-tractor swing routes, and 48.50 miles of road maintenance will occur. Temporary routes on BLM administered lands will be decommissioned after use.

The Upper Cow EA analyzed the effects of implementing project activities on 1,373 acres. This Decision Record authorizes activities on 750 acres. The remaining 623 acres may be authorized in the future under a subsequent decision.

The Selected Alternative is a blend of Alternatives 2 and 3. The Decision will incorporate *ALL* the PDFs and BMPs contained within the Upper Cow EA. Seasonal restrictions and features of the Selected Alternative are documented in the table below.

Table 1 - Alternative Comparison to the Selected Alternative

Element	Alternative 2	Alternative 3	Selected Alternative
Ground Based Operation	With the proper waivers, ground based harvesting may be permitted in the wet season during dry conditions	No ground based harvesting in the wet season during dry conditions – October 15 th through April 15 th .	No ground based harvesting in the wet season during dry conditions – October 15 th through April 15 th . Approximately 156 acres.
Hauling	With the proper waivers and the implementation of applicable BMPs and PDFs, hauling may be permitted in all seasons.	Hauling during the wet season during dry conditions and <i>ONLY</i> on roads with All Weather Surfacing	With the proper waivers and the implementation of applicable BMPs and PDFs, hauling may be permitted in all seasons.
Treatment in units that are greater than 80 years old	Treatments may occur in units greater than 80 years of age (with REO approval).	No treatments in units greater than 80 years of age.	Treatments will occur in units greater than 80 years of age, which were approved by the REO.
Cutting trees greater than 20 inches in diameter at breast height (DBH)	Cutting and harvesting of trees greater than 20 inches in DBH (with REO approval).	No cutting of trees greater than 20 inches DBH for silvicultural purposes. Trees greater than 20 inches DBH may be cut to accommodate logging systems but would remain on site.	The cutting and harvesting of trees 20 to 25 inches DBH may occur if those trees were designated for removal as part of the silvicultural prescription. Some trees 20 to 25 inches DBH that were marked for retention may be cut to facilitate cable/tractor yarding corridors and temporary route construction or renovation/reconstruction; these will remain on site as coarse woody debris.

Element	Alternative 2	Alternative 3	Selected Alternative
BMPs, PDFs, Seasonal Restrictions	Proposal will utilize all BMPs, PDFs, and Seasonal Restrictions.	Only PDF not included: wet season ground based harvesting and hauling would be limited to the dry season or all-weather roads (See Chapter 2.4 BMPs and PDFs for a description).	Temporary route construction may be permitted during any season with a waiver.
			Dry condition harvesting and hauling, along with placing slash (not to exceed 18 inches) over yarding corridors and skid trails prior to use, is required in units 30-2, 11-1 and 1-2 (This PDF <i>ONLY</i> applies to 6.5 acres within unit 1-2).
			Dry season harvesting and hauling, along with placing slash (not to exceed 18 inches) on all cable and tractor skid trails within all units in Section 19 is required.

Table 2 - Selected Alternative Summary

Forest Management Treatments			
Restoration Thinning	114		7
Variable Density Thinning	423		68
Density Management	205		6
Legacy Tree Culturing	8		1
Total Acres	750		82
Ground Based	156	New temporary route construction	0.60
Cable Yarding	426	Existing temporary route reconstruction/renovation	1.30
Helicopter Yarding	168	Tractor swing route	0.70
		Road maintenance	48.5

V. DECISION RATIONALE

My rationale for the decision is as follows:

The Selected Alternative meets BLM's obligation to implement the RMP and address the primary needs identified for lands in the planning area, as well as meeting the purpose and need of the project to maintain and enhance conditions of late-successional and old-growth forest ecosystems.

I am choosing portions of Alternatives 2 and 3, referred to as the Selected Alternative, because it will meet all of the elements of the purpose and need. The Selected Alternative authorizes active forest management on 750 acres. The Selected Alternative meets RMP direction to "enhance and maintain conditions of late-successional and old-growth forest ecosystems, which serve as habitat for late-successional and old-growth forest related species" (BLM 1995, pp. 21, 32; NWFP 1994b, p. B-1). Treatments were prioritized during project planning through the Recovery Action 10 process, ensuring that active management treatments enhance and maintain habitat for late successional and old growth related species, such as the NSO (EA, pp. 12-13).

This Decision authorizes 114 acres of Restoration Thinning, 411 acres of Variable Density Thinning, 133 acres of Density Management, 8 acres of Legacy Tree Culturing, and 84 acres of Variable Density Thinning/Density Management treatments. Within the South Umpqua-Galesville LSR the treatment of stands greater than 80 years of age and the cutting of trees greater than 20 inches DBH is subject to REO review. Based on the submitted report, the REO concurred with BLM's determination that the treatment of stands greater than 80 years of age will accelerate the attainment of late successional characteristics. Additionally, the REO concurred that large legacy trees will benefit from the removal of competing trees 20 to 25 inches DBH. To ensure that habitat features are retained within the late successional reserve, 20 to 25 inch trees that are marked for retention but subsequently cut to facilitate harvest systems would remain on site to contribute to coarse woody material. To summarize, treatments will occur in stands that are greater than 80 years of age with the possible cutting and harvesting of trees greater than 20 inches in diameter, thus accelerating the attainment of late successional characteristics.

To facilitate active management, 0.60 miles of new temporary routes will be constructed and 0.70 miles of tractor swing routes will be temporarily utilized. New temporary route construction was reduced during project planning to respond to RMP direction to utilize existing roads and consider alternate methods of access, such as helicopter yarding. The utilization of 1.30 miles of existing temporary routes, which require either renovation or reconstruction, will aid in avoiding increases in sediment transport to streams. Temporary routes, of all types, located on BLM administered lands will be decommissioned following use. The decommissioning of these routes will further reduce sediment transport to streams. The

authorization of 48.50 miles of road maintenance will meet RMP direction to perform road work, thus preventing road deterioration or failure and prevent road generated sediment (RMP, p. 5).

The Selected Alternative ensures the protection of late successional characteristics through the exploration of alternate access methods, such as helicopter yarding. This Decision authorizes 168 acres of helicopter yarding. Additionally, 156 acres of tractor yarding are restricted to dry season operations, the authorization of tractor yarding during the dry season aids in achieving RMP direction to avoid increasing sediment transport to streams. Cable yarding will occur on 426 acres thus allowing silvicultural treatments on ground too steep for tractor yarding. Yarding operations that facilitate active management may reduce the risk of large-scale disturbance events.

All project activities authorized within this Decision are subject to the implementation of Best Management Practices, Project Design Features, and seasonal restrictions to mitigate potential resource damage. In units that contain sensitive soils, dry condition operations and placement of slash on corridors and skid trails is required. Dry condition operations are required for all units in section 19, ensuring the protection of soil resources.

I chose not to select the No Action Alternative because it would not meet the stated purpose and need of the project. Under the No Action Alternative, no treatments would occur thus the maintenance and enhancement of late successional characteristics would not be accelerated. Additionally, there is no road maintenance work associated with the No Action Alternative thus any roads in need of maintenance would further deteriorate.

A finding of No Significant Impact (FONSI) explains that the Selected Alternative that I have chosen has been analyzed in an Environmental Assessment and has been found to have no significant impacts, thus an Environmental Impact Statement is not required, and will not be prepared.

VI. ADMINISTRATIVE REMEDIES

In accordance with Forest Management regulations at 43 CFR Subpart 5003 – Administrative Remedies, publication of the first Notice of Sale for the Timber Sale constitutes the decision document for the purposes of protest. Protest of the timber sale decision may be filed with the authorized officer, Allen Bollschweiler, within 15 days of the publication date of the Notice of Sale in the *Grants Pass Daily Courier* newspaper in Grants Pass, Oregon, the *Medford Mail Tribune* in Medford, Oregon, and the *Roseburg News Review* in Roseburg, 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.

43 CFR § 5003.3 subsection (b) states, “Protests shall be filed with the authorized officer and shall contain a written statement of reason 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 Grants Pass Interagency Office will be accepted.** The Grants Pass Interagency Office is located at 2164 NE Spalding Ave, Grants Pass, Oregon, 97526.

43 CFR § 5003.3 subsection (c) states, "Protests received more than 15 days after the publication of the first 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. Upon denial of a protest, the authorized officer may proceed with the implementation of the decision as permitted by regulations at 5003.3(f).

VII. IMPLEMENTATION DATE

If no protest is received by the close of business (4:30 p.m.) within 15 days after publication of the Legal Notice, the decision will become final. If a timely protest is received, the decision will be reconsidered in light of the statement of reasons for the protest and other pertinent information available and a final decision will be issued in accordance with 43 CFR § 5003.3.

VIII. CONTACT PERSON

For additional information contact either Allen Bollschweiler, Field Manager, Grants Pass Field Office, 2164 NE Spalding Ave., Grants Pass, OR 97526, telephone (541) 471-6653; or Ferris Fisher, Planning and Environmental Coordinator, telephone (541) 471-6639.



Allen Bollschweiler,
Field Manager
Grants Pass Field Office



Date

Appendix A Unit Summary Table

Township Range Section	Unit	Total Acres	Riparian Reserve Acres	Logging Systems ¹	Silvicultural Prescription ²	Route Needs	Ecological Protection Zones ³
T32S-R05W-01	1-1	39		T(7) C(32)	RT – 40	0.05 miles new route construction 405 feet tractor swing route	No Riparian Reserves in unit
	1-1b	20		T(7) C(13)	RT – 40		
	1-1c	3		T(3)	RT – 40		
T32S-R04W-01	1-2	42	12	C(42)	VDT – 30	0.43 miles route reconstruction	4 - PNF- 85ft 2 - I - 60ft 4 - S - 25ft
T32S-R04W-03	3-1	5		T(1) C(4)	DM – 60	0.02 miles new route construction	No Riparian Reserves in unit
T31S-R04W-32 T32S-R04W-05	5-4	31	9	T(31)	VDT/UR – 40		2 - PNF - 85ft 1 - I - 60ft
T32S-R04W-09	9-1	5	4	T(5)	RT/UR – 60		1 - PNF - 85ft 1 - I - 35ft
T32S-R04W-09	9-26	3	1	T(3)	VDT/UR – 60		2 - PNF - 85ft 1 - I - 35ft

¹ Yarding systems include Tractor (T), Cable (C), and Helicopter (H).

² Prescription types include Restoration Thin (RT), Variable Density Thin (VDT), Density Management (DM), Understory Reduction (UR), and Legacy Tree Culturing (LTC).

³ Format (Number – Feature – Buffer Distance). Riparian Reserves (RR) widths are determined based on a 200 foot site potential tree for the Upper Cow watershed. Intermittent (I) and perennial streams with no known fish potential (PNF) have a one-tree 200 foot buffer. Perennial fish (PF) bearing streams are assigned a two-tree 400 foot buffer. Ecological Protection Zone (EPZ) to protect stream banks from erosion along intermittent streams, with a 35 or 60 foot buffer depending on field surveys. Perennial streams with no know fish potential have an 85 foot EPZ to protect the primary shade zone and provide an undisturbed vegetation buffer for reducing sedimentation and increase infiltration near the streams. Perennial streams with fish have a 120 foot buffer to allow for the recruitment of large woody debris and protect fish habitat. Springs and seeps (S) have a 25 foot buffer. *Note: Unit boundaries were modified to exclude EPZs.*

Township Range Section	Unit	Total Acres	Riparian Reserve Acres	Logging Systems ¹	Silvicultural Prescription ²	Route Needs	Ecological Protection Zones ³
T32S-R04W-11	11-1	16	1	H(8) C(8)	DM – 60	0.07 miles new route construction 0.05 miles route reconstruction	1 - PF - 120ft 2 - I - 35ft 1 - S - 25ft
T32S-R04W-10 T32S-R04W-11 T32S-R04W-14	11-6	37		T(3) H(34)	VDT/DM – 60		No Riparian Reserves in unit
T32S-R04W-11	11-25	5	1	C(5)	VDT – 60	0.04 miles route renovation	1 - I - 35ft
T32S-R04W-11 T32S-R04W-13 T32S-R04W-14	11-26	20		C(20)	DM – 60	0.05 miles new route construction	No Riparian Reserves in unit
T32S-R04W-11 T32S-R04W-14	11-34	1	1	C(1)	DM – 60		1 - I - 35ft
T32S-R04W-13	13-4	4		T(4)	VDT - 60		1 - S - 25ft
T32S-R04W-13	13-37	23	1	T(23)	DM/UR – 60	0.15 miles route reconstruction	1 - I - 35ft 1 - S - 25ft
T32S-R04W-11 T32S-R04W-14	14-3	10		C(10)	DM – 60		No Riparian Reserves in unit
T32S-R04W-15	15-19	5		H(5)	DM – 60		No Riparian Reserves in unit
T31S-R03W-19	19-3	20	1	T(4) C(16)	VDT – 40/60	820 feet tractor swing route	1 - PF - 120ft 1 - PNF - 85ft
T31S-R03W-19	19-4	3		C(3)	DM – 60		No Riparian Reserves in unit

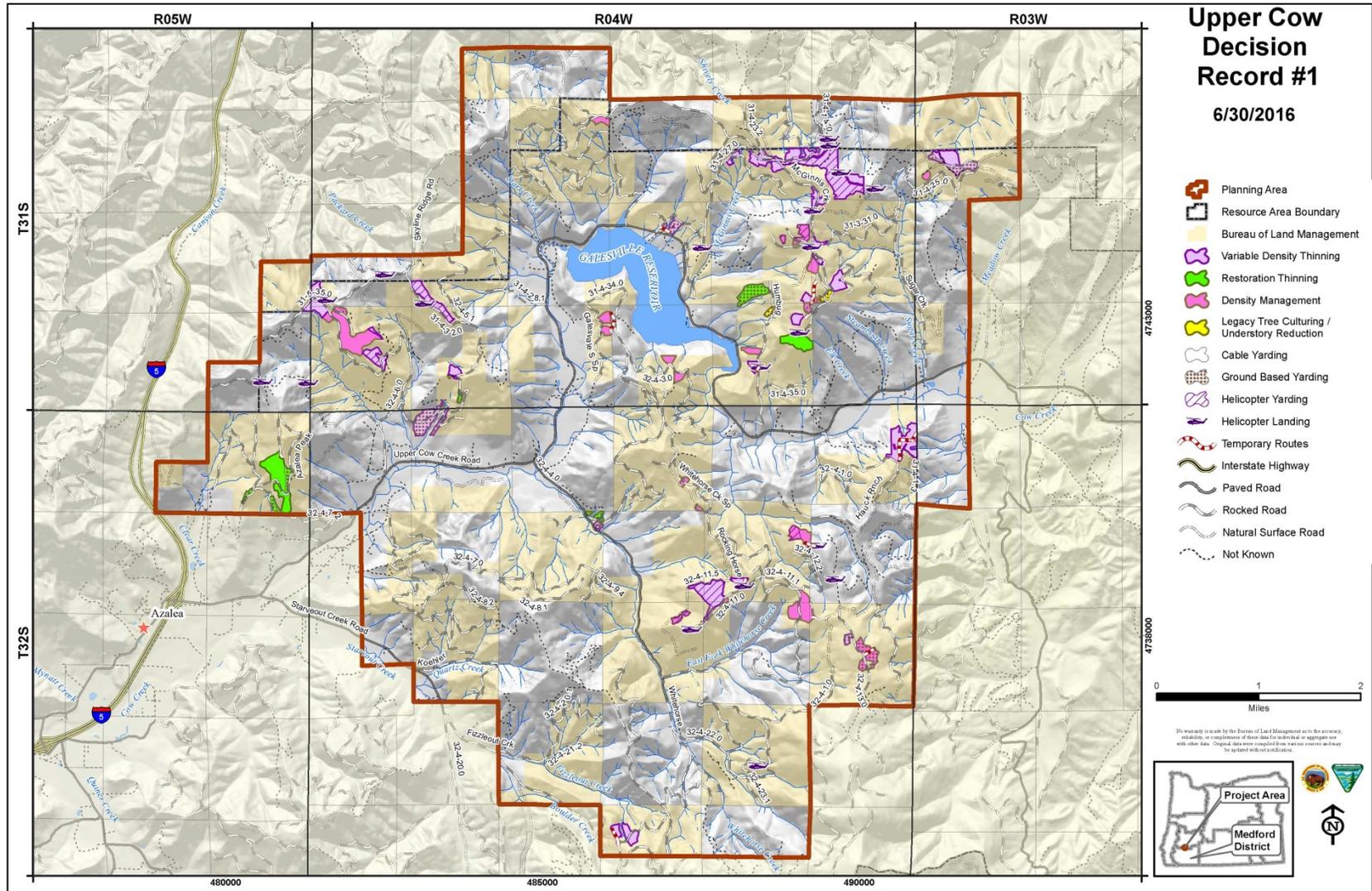
Township Range Section	Unit	Total Acres	Riparian Reserve Acres	Logging Systems ¹	Silvicultural Prescription ²	Route Needs	Ecological Protection Zones ³
T31S-R03W-19	19-9	13		T(12) C(1)	VDT – 40	1,608 feet tractor swing route	No Riparian Reserves in unit
T31S-R04W-21	21-2	7		C(7)	DM – 60		No Riparian Reserves in unit
T31S-R04W-23 T31S-R04W-24	23-1	15	8	C(15)	VDT – 40		5 - PNF - 85ft 4 - I - 60ft 1 - S - 25ft
T31S-R04W-23	23-2	6		C(6)	VDT – 40		No Riparian Reserves in unit
T31S-R04W-23	23-2b	5		T(2) C(3)	VDT – 40		No Riparian Reserves in unit
T31S-R04W-23	23-3n	14	4	C(14)	VDT – 40		1 - PF - 120ft
T31S-R04W-23	23-6	1		C(1)	VDT - 30		No Riparian Reserves in unit
T31S-R04W-24	24-1	80	5	C(11) H(69)	VDT – 40		1 - I - 60ft 1 - I - 35ft
T31S-R04W-24 T31S-R04W-25	24-3	11	3	C(6)H(5)	VDT – 40		2 - I - 35ft
T31S-R04W-25	25-1b	4		T(4)	LTC – 40		No Riparian Reserves in unit
T31S-R04W-25	25-7	5	1	C(5)	VDT – 30		1 - I - 60ft
T31S-R04W-25	25-12	12	2	C(12)	VDT – 30		1 - S - 25ft

Township Range Section	Unit	Total Acres	Riparian Reserve Acres	Logging Systems ¹	Silvicultural Prescription ²	Route Needs	Ecological Protection Zones ³
T31S-R04W-25 T31S-R04W-26	25-37	12		T(2) C(10)	VDT – 30 DM – 60	252 feet tractor swing route	No Riparian Reserves in unit
T31S-R04W-26	26-1	22	3	T(22)	RT – 60	Tractor pre-bunch, cable yard	2 - PNF - 85ft
T31S-R04W-25 T31S-R04W-26 T31S-R04W-35	26-1b	13		T(4) C(9)	VDT – 40 DM – 40	0.12 miles new route construction 0.13 miles route reconstruction	No Riparian Reserves in unit
T31S-R04W-26	26-3	1		C(1)	DM – 60		No Riparian Reserves in unit
T31S-R04W-26	26-3a	2		H(2)	DM – 60		No Riparian Reserves in unit
T31S-R04W-26	26-3b	10		H(10)	DM – 60		No Riparian Reserves in unit
T32S-R04W-27	27-4s	17	8	C(17)	VDT/UR – 40	0.04 miles new route construction 0.15 miles route reconstruction	2 - PNF - 85ft 1 - I - 35ft
T31S-R04W-27	27-12	9	6	T(9)	VDT – 40	0.10 miles route renovation	2 - PNF - 85ft 3 - S - 25ft
T31S-R04W-29 T31S-R04W-32	29-1	24		H(24)	VDT – 60		No Riparian Reserves in unit
T31S-R04W-30	30-2	9		C(9)	VDT – 40		No Riparian Reserves in unit

Township Range Section	Unit	Total Acres	Riparian Reserve Acres	Logging Systems ¹	Silvicultural Prescription ²	Route Needs	Ecological Protection Zones ³
T31S-R04W-30 T31S-R04W-31 T31S-R05W-25	31-2	15	2	T(2) C(13)	VDT – 40		2 - PNF - 85ft 1 - I - 35ft 1 - S - 25ft
T31S-R04W-31	31-3	59		T(2) C(57)	VDT/UR – 40 DM/UR – 60	533 feet tractor swing route	No Riparian Reserves in unit
T31S-R04W-31	31-6	15		C(4) H(11)	VDT – 40		No Riparian Reserves in unit
T31S-R04W-32	32-4	7	5	C(7)	VDT – 40		1 - PNF - 85ft 3 - I - 60ft 2 - I - 35ft
T31S-R04W-32	32-7	1		C(1)	LTC – 60		No Riparian Reserves in unit
T31S-R04W-32	32-7s	2		T(2)	RT – 60		No Riparian Reserves in unit
T31S-R04W-33	33-4	13		T(1) C(12)	DM/UR – 60	0.11 miles new route construction 0.13 miles route renovation	No Riparian Reserves in unit
T31S-R04W-34	34-1	10		C(10)	DM – 60		No Riparian Reserves in unit
T31S-R04W-35	35-1F	3	1	T(3)	LTC/UR – 60		1 - PNF - 85ft
T31S-R04W-35	35-2	6		C(6)	VDT – 40	0.05 miles new route construction	No Riparian Reserves in unit
T31S-R04W-35	35-3	5		C(5)	VDT – 40	0.07 miles route reconstruction	No Riparian Reserves in unit

Township Range Section	Unit	Total Acres	Riparian Reserve Acres	Logging Systems ¹	Silvicultural Prescription ²	Route Needs	Ecological Protection Zones ³
T31S-R04W-35	35-5	7	3	C(7)	DM – 60		3 - PNF - 85ft 2 - I - 60ft
T31S-R04W-35	35-15	23		C(23)	RT – 40		No Riparian Reserves in unit

Appendix B Decision Record Map



Appendix C Response to Comments

Response to Upper Cow Late Successional Reserve Environmental Assessment Comments

The BLM received six letters in response to the release of the Upper Cow Late Successional Reserve Project Environmental Assessment. Comments were received from two private citizens, American Forest Resource Council, Klamath-Siskiyou Wildlands Center, Oregon Wild, and The Association of O&C Counties.

1) *Restoration thinning*

Comment: We applaud several of the silvicultural prescriptions, specifically those that focus on restoration thinning, that treat stands to a level that results in NSO habitat downgrade or removal where such treatments meet a multitude of other LSR objectives. Ultimately we would have liked to see these restoration thinning prescriptions be implemented even more aggressively, but we understand the other constraints that the BLM is facing.

Response: The interdisciplinary team (IDT) followed principles in the *Recovery Plan Implementation Guidance: Interim Recovery Action 10 Medford Bureau of Land Management/Rogue River-Siskiyou National Forest/U.S. Fish and Wildlife Service Roseburg Field Office* (USFS/BLM/USFWS 2013) while designing the proposed treatments (EA, p. 68). The IDT ranked the northern spotted owl sites within the planning area and the ranking of these sites was then used during alternative development to inform treatment locations and intensity consistent with recommendations included in the “Restoring Dry Forest Ecosystems” section of the Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011, Section III, pp. 32-38) (EA, p. 68-69).

The project silviculturist assigned treatment prescription to benefit stands within the planning area using guidance in the document mentioned above. Treatments would improve stand resiliency and where the ecological needs of the stand outweighed the owl habitat needs (i.e. pine restoration on a ridge that is in low habitat suitability according to the relative habitat suitability model) restoration thinning was prescribed (EA, p. 13). Restoration thinning prescriptions were designed to reduce Douglas-fir and to favor ponderosa pine, sugar pine, and/or incense cedar which are valued fire-resilient species, thereby restoring the site to densities tailored to the historic vegetation classes (EA, p. 207).

2) *Landscape level late-successional conditions*

Comment: The stated purpose & need on page 3 of the EA is to “protect and enhance conditions of late-successional and old-growth forest ecosystems.” We think that it is important for the BLM to recognize and describe exactly what these “conditions” look like on the landscape as this will drive the silvicultural prescriptions.

Response: The Upper Cow Project landscape objectives involve maintaining or restoring healthy, functioning ecosystems; ecological processes; and functions on both temporal and spatial scales. Ecological processes such as disturbance regimes define the temporal scale whereas the ecological unit of the landscape or ecosystem defines the spatial scale. Disturbance regimes such as fire thinned forests keep stand and landscape densities low, providing vigorous growing conditions of individual trees and maintaining fire resiliency across the landscape. A desired condition to restore and enhance species diversity on both the landscape and stand level scale include increasing the proportion of fire-resilient ponderosa pine, oak species (excluding tanoak), incense cedar, and stimulating early seral shrub development. This would be accomplished by utilizing disturbance-based forestry that reduces Douglas-fir, emulating the more frequent historic fire disturbance and low-severity density reduction regime that characterizes early seral vegetation. The effects of these disturbances can be achieved through silvicultural intervention to restore the function and process of the ecosystem (EA, p. 203).

3) *Late-successional habitat and northern spotted owl habitat*

Comment: In our scoping comments we asked that the BLM consider the removal of certain NSO habitat thresholds where such removal would better meet the purpose & need of maintaining and enhancing LSR habitat. In the BLM's response in Appendix B you stated that "the purpose and need for the project precludes analysis of an alternative that would remove or downgrade NSO habitat." We disagree with the validity of this response. This statement asserts that all stands in the project area must conform to NSO habitat thresholds, particularly canopy cover, in order to be considered late-successional habitat. In other words, that late-successional habitat and NSO habitat are always one and the same.

Response: As stated above in response to Comment 1, above; the BLM developed the Upper Cow project following the Northern Spotted Owl Recovery Plan and the principles in Recovery Action 10 (EA, p. 68-69). Based on this assessment, the BLM prioritized units for treatment, which included approximately 220 acres of Nesting Roosting Foraging/Dispersal habitat as either downgrade or removal of habitat following treatment (Alternative 2) (EA, p. 78). Contrary to the commenter's assertion, the BLM has not declared that all stands in the planning area must conform to NSO habitat thresholds in order to be considered late-successional habitat. The downgrade/removal of NSO habitat was proposed after careful consideration to better meet the purpose and need for this project.

4) *High canopy cover and species diversity*

Comment: It also appears that the Upper Cow EA views high canopy cover and species diversity and forest health as one and the same. The statement at the bottom of page 23 in the EA states exactly that: *Canopy cover in the RR would remain above 40% or 60% depending on the silvicultural prescription, therefore species diversity and forest health would be maintained.* We're confused as to the scientific rationale that strictly associates high canopy cover with health

and diversity. Open oak and pine savannah habitats are some of the most biologically diverse ecosystems in southwest Oregon. We would like the BLM to provide some literature that supports this association.

Response: As stated in the purpose and need section of the Environmental Assessment (EA), late-successional reserves and riparian reserve objectives are very similar and include: large conifers with deep crowns and large limbs; future source material (large green trees) for coarse woody debris meeting Resource Management Plan (RMP) standards; future source material for large (> 15 inches in diameter and 15 feet tall) snag habitat; long-term structural, spatial and trees species diversity; multi-layered stands; and other elements of late-successional forest habitat. The BLM acknowledges that biologically diverse ecosystems may contain dense multi-layered canopy or open pine oak savannahs. The treatment prescriptions analyzed within the EA reflect this notion. The analysis within this EA is in compliance with the RMP and the Northwest Forest Plan.

5) Northern spotted owl critical habitat

Comment: We are confused regarding the stance the BLM seems to be taking when managing in the northern spotted owl critical habitat unit (CHU). Page 13 of the EA states that “adverse effects were avoided in occupied sites within critical habitat” and “NRF and RF habitat are not proposed for removal within critical habitat.” These two comments make it sound as though 1.) the combination of CHU and occupied sites makes adverse effects unacceptable, and 2.) removal of NRF or RF is unacceptable in the CHU. Nowhere in the CHU rule is active management that may remove certain habitat elements prohibited.

Response: During the planning process for the project the interdisciplinary team used the principles contained within Recovery Action 32 and Recovery Action 10 (USFS/BLM/USFWS 2013), strategies for conserving and enhancing spotted owls and their habitat. This is why adverse effects were avoided in occupied sites, whether these sites occurred in critical habitat or not. As stated in the Environmental Assessment, adverse effects in critical habitat located outside of the home ranges of known sites were only proposed in areas where the habitat could be improved in the long-term, treatments would improve stand resiliency, or where the ecological needs of the stand outweighed the owl habitat needs (i.e. pine restoration on a ridge that is in low habitat suitability according to the relative habitat suitability model). Nesting/Roosting/Foraging (NRF) and Roosting/Foraging habitat are not proposed for removal within critical habitat (EA, p. 13). The BLM planned the Upper Cow project to maintain and enhance late successional characteristics, which included a decision to not actively interfere with areas containing functioning elements of NRF habitat.

5A) Comment: The vision for the 9+ million acres of CH [critical habitat] surely was not 60% canopy cover on all 9 million acres.

Response: The intent of the Final Critical Habitat Rule is to develop and maintain NSO habitat. Although the intent of the Rule is not to have 60% canopy cover on the 9 million acres of Critical Habitat, it was meant to conserve as much habitat as possible and utilize treatments that enhance and maintain the primary constituent elements of critical habitat.

5B) Comment: The citations in the Upper Cow EA that points to the CHU rule as a preclusion to habitat downgrade or removal seems to be misinformed. This presumed preclusion is also poor management given the condition of several “NRF” stands that we viewed in the field. Unit 35-15 for example, although identified as NRF, is in horrible condition: it’s highly overstocked and the native pine & oaks are being weeded out by encroaching Douglas-fir. The proper “restorative” treatment is a heavy thin that may remove NRF habitat. If the business model that the BLM is using precludes that treatment, then perhaps that model is broken.

Response: Nesting, Roosting, and Foraging (NRF) habitat is made up of multiple elements. Not all stands classified as NRF contain all of the elements that constitute NRF habitat. For example, some stands classified as foraging habitat are considered NRF even though these areas do not contain all of the elements of NRF. Restorative thinning was assigned to stands following the application of Recovery Action 10 and where the ecological needs of the stand outweighed the owl habitat needs (i.e. pine restoration on a ridge that is in low habitat suitability according to the relative habitat suitability model) (EA, p. 13).

6) *Northern spotted owl consultation*

Comment: AFRC continues to be confused with the scale at which effects analysis is completed on BLM projects. The BLM responded to our scoping comments on this issue in Appendix B. The response states that the BLM is required to consult with the USFWS at the stand level. However, it appears that the BLM is not consulting at the stand level, but rather at the unit level. If the BLM were consulting at the stand level, then there would be no need to implement the design features described on page 17 that propose the retention of additional canopy cover to account for yarding corridors and skid trails. The implementation of the no-cut EPZ’s that range in size from 25-100 feet along streams should make the canopy reduction from cable corridors and skid trails negligible. These no-cut EPZ’s are part of the “stand” and their retention should, in theory, cancel out the canopy reduction in cable corridors and skid trails. But instead the BLM seems to be ignoring this extra level of retention within the stand.

Response: To clarify, the BLM consults with the Fish and Wildlife Service on the area where the actual treatment occurs. This may be at the stand level or unit level. Additional canopy cover was retained within the treatment areas to ensure that canopy cover stayed above the target thresholds (EA, p. 17). The interdisciplinary team of resource specialists was cautious about retaining adequate canopy cover in the project because the area is designated as a Late-Successional Reserve with an overlying critical habitat unit.

7) *Canopy cover*

Comment: If you've already scaled back your prescription to account for corridors & skid trails then why is it necessary to retain additional trees in the units for trees cut in corridors & skid trails?

Response: As stated above in response to Comment 6, additional canopy cover was retained within units to ensure that canopy cover thresholds were met. The tree swap design feature was intended to meet the *South Umpqua River/Galesville Late Successional Reserve Assessment* requirements for coarse woody material within units. The 20 inch trees mentioned on page 19 of the Environmental Assessment, describes these trees as "marked" which means that they were factored into the canopy cover for each unit, thus were intended to stay on site. While these two design features may seem to accomplish the same objectives, multiple objectives were achieved with these two design features.

8) *Effects to northern spotted owls*

Comment: In general, it appears that the BLM is viewing the effects of this project as it pertains to the NSO at a very small scale. Not only are individual cable corridors being viewed as habitat removal but proposed landing sites are now being considered the same... We feel that the way these 22.7 & 32.4 acre "removals" are being presented in the context of direct impacts to the northern spotted owl is inappropriate. Our concern here has to do with the scale of this analysis and how it is presented.

Response: During the Fish and Wildlife Service northern spotted owl (NSO) consultation process the BLM must account for treatments that alter habitat and the associated logging systems that also alter habitat. This type of accounting accurately captures the impacts associated with logging systems and depicts the actual direct impacts to NSO and its habitat.

9) *Deferral of road construction*

Comment: We are also curious if the scale of analysis described above has led not only to the modification of silvicultural prescriptions but also the outright removal of proposed roads and landings needed to facilitate an economical logging plan. The possible deferral or road construction was addressed in the response to comments in Appendix B, but we are still confused as to the rationale behind certain deferrals given this response. Several units in the project area (namely units 24-1, 26-3b, and 11-6) appear, based on our field visits, to have topography that would facilitate relatively easy road construction that would have minimum adverse impacts to allow for cable and/or tractor yarding systems. However, this road construction was deferred and the logging system was identified as helicopter in the EA.

Response: This project is within a late-successional reserve (LSR) land use allocation and as such the BLM is required to “reduce road building unless the benefits outweigh the harm” (EA, pp. 5-6). The purpose and need of this project is to maintain and enhance late successional characteristics and as such during the interdisciplinary team process it was decided that temporary route construction within nesting, roosting, and foraging (NRF) habitat should be carefully considered. As stated, this project occurs in the LSR and in this land use designation, habitat removal was actively minimized because removal of NRF habitat elements within the LSR is similar to the removal of LSR habitat elements.

9A) Comment: AFRC continuously asks the BLM to consider road and landing construction sensibly located on the landscape to facilitate economical logging. While we are not opposed to the use of helicopters to yard difficult terrain, we are opposed to using helicopter as an excuse to avoid road construction on ridgetops and upper sideslopes, which is what appears is occurring on several units on the Upper Cow project. We also counted six “tractor swing routes” being proposed rather than actual roads that could carry a log truck.

Response: As stated above, the RMP directs the BLM to only build roads if the benefit outweighs the risk. Deferred temporary route construction and proposed tractor swing routes were designed to reduce any possible long term effects within the late-successional reserve. Routes were considered carefully when they occurred in nesting, roosting, foraging habitat and where potential actions could have negative effects to late-successional characteristics.

10) Riparian reserve active management

Comment: Based upon our visits to the proposed units it is clear that the stand conditions that exist in the uplands also exist in the riparian areas. We encourage the BLM to continue to look for ways to incorporate active management within the Riparian Reserves, which we believe is the intent of the ACS.

Response: The silviculturist worked closely with the fisheries biologist and the hydrologist to develop silvicultural prescriptions that enhance riparian reserves and achieve Aquatic Conservation Strategy (ACS) objectives. The BLM incorporated the active management of riparian reserves to achieve ASC objectives.

11) Gaps in riparian reserve

Comment: The incorporation of gaps in portions of the riparian reserves is an important step toward meeting the diverse set of guidelines outlined in the ACS. We encourage the BLM to continue to look for ways to incorporate these types of treatments in their riparian reserves.

Response: Treatments within riparian reserves are selected and implemented to meet Aquatic Conservation Strategy (ACS) objectives. If the interdisciplinary team of specialists determines

that gaps within riparian areas are necessary to achieve ACS objectives then these types of features may be applied in riparian reserves.

12) Operational seasons

Comment: The primary factor affecting the ability of our members to feasibly deliver logs to their mills are firm operating restrictions. 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). Consistent and steady operation time throughout the year is important for our members not only to supply a steady source of timber for their mills, but also to keep their employees working. These two values are intangible and hard to quantify as dollar figures in a graph or table, but they are important factors to consider.

Response: This project was designed with two Action Alternatives to ensure a wide range of options are considered during the Decision making process. Comments such as this help inform the Grants Pass Field Manager's choice on Alternative selection.

12A) Comment: We encourage the BLM to select Alternative 2 that takes this sensible and logical approach rather than Alternative 3 that uses the firm timing restrictions.

Response: The Decision Maker chose the Selected Alternative which blends elements of each analyzed Action Alternative. The Selected Alternative best meets the purpose and need for this project.

13) Regional Ecosystem Office

Comment: The Regional Ecosystem Office must review Alternative 2 treatments in stands greater than 80 years and the cutting of trees 20"-25" DBH but the REO cannot give "exemptions" (EA:15).

Response: The REO has reviewed the treatments analyzed under Alternative 2 and has concurred with the BLM's proposal.

14) Violation of the Northwest Forest Plan

Comment: The cutting of trees 20"- 25"DBH for commercial removal (i.e. logging) in stands greater than 80 years in an LSR clearly violates the Northwest Forest Plan irrespective of reviews or unwarranted "exemptions" by the REO.

Response: The activities planned within this Late Successional Reserve (LSR) are designed to enhance and maintain late-successional characteristics. This project is in compliance with the

Northwest Forest Plan and meets the objectives of the *South Umpqua River/Galesville Late-Successional Reserve Assessment*. The Environmental Assessment is further supported by the concurrence the BLM received from the Regional Ecosystem Office.

15) Range of alternatives

Comment: The EA failed to analyze the obvious and acceptable alternative that would provide for cutting and commercial removal of small trees <20"DBH in stands over 80 years old.

Response: The BLM developed an appropriate range of Alternatives which included a No Action Alternative and 2 Action Alternatives. Alternative 2 allows for the removal of trees <20" diameter at breast height (DBH) in stands that are over 80 years old. There is no preclusion in Alternative 2 that would limit the removal of small trees <20" DBH. Alternative 2 includes the commercial removal of small trees in stands over 80 years old.

16) Estimation of >20" trees

Comment: The EA is defective because it fails to estimate the number of large trees (>20"DBH) per acre that would be removed as "byproduct" from stands >80 years.

Response: The *Upper Cow Late-Successional Reserve Project, Proposed Exemption in the South Umpqua River/Galesville Late-Successional Reserve* report, which is contained within the Administrative Record and posted to the BLM's ePlanning website, discloses the number of trees >20 inches DBH before and after treatment. These figures are presented with the age of the stands (BLM report, pp. 23-24).

17) Fire effects on spotted owls

Comment: The EA:71 is defective because discussion of fire effects on spotted owls is biased by reporting only adverse effects of fire and making biased statements about comparing logging to fire.

Response: The BLM has the discretion to choose which scientific articles are used in the analysis process. The BLM has used the best available science when discussing the effects of fire on northern spotted owls (EA, p. 71).

18) Post-harvest blowdown

Comment: The EA is defective because it failed to accurately analyze post-harvest blowdown comparisons for units that would be thinned to 60%, 40% and gaps.

Response: To ensure that canopy cover targets are retained, most silvicultural prescriptions included an additional percentage of canopy cover to mitigate impacts (EA, p. 17). Table G-3

discloses the short-term and long-term effects of the Action Alternatives on windthrow hazard by prescription type (EA, pp. 208-209).

19) Violation of Endangered Species Act and Northwest Forest Plan

Comment: The 78 acres of NRF downgrade in units: 1-1, 26-1B, 35-2 and 35-15 would violate the ESA and the NW Forest Plan.

Response: The US Fish and Wildlife Service concluded that the proposed treatments are anticipated to have adverse effects to northern spotted owls (NSO), but are not likely to jeopardize the NSO, and are not likely to adversely modify NSO critical habitat at the subunit or range wide scale (BiOp, p.62). The commenter does not specify why or how nesting, roosting, and foraging downgrading violates the Endangered Species Act or the Northwest Forest Plan.

20) Thinning to reduce fire risk

Comment: The EA is biased in favor of thinning and fails to discuss ongoing scientific controversy about the merits of thinning NSO habitat to reduce fire risks.

Response: The BLM is not required in an Environmental Assessment to explain every possible scientific uncertainty. The fact that the commenter disagrees with the agencies determination does not invalidate the agency's decision. The BLM used the best available science in making its determination and relied on the reasonable opinion of its specialized experts when dealing with the conflicting views mentioned by the commenter.

21) Maintaining canopy cover

Comment: The EA fails to discuss uncertainty about maintaining 60% canopy for NRF and 40% for Dispersal.

Response: To ensure that canopy cover targets were retained, most silvicultural prescriptions included an additional percentage of canopy cover to mitigate impacts from logging operations such as yarding corridors and skid trails. Additionally, the Upper Cow interdisciplinary team silviculturist and wildlife biologist field verified the accuracy of the marking of each unit, and where needed, modified the mark to improve structural characteristics of habitat quality and stand variability (EA, p. 17).

22) Temporary route construction/reconstruction

Comment: Proposed 0.6 miles of new temporary roads on virgin soil and 1.6 miles reconstruction/renovation of existing routes violates the Northwest Forest Plan. The EA fails to implement the Upper Cow Creek Water Quality Restoration Plan for BLM. The decision needs to identify at least 2.2 miles of road decommissioning besides what is proposed to implement

the water quality plan and to assure overall benefits to the LSR that justify new road construction.

Response: BLM has identified Best Management Practices (BMPs) for the protection of water quality under the Clean Water Act in Section 2.4: Chapter 1, BMPs that are specific to this project and the management actions proposed under the Action Alternatives. The BLM has also developed Water Quality Restoration Plans for Middle and Upper Cow Creek that are being implemented (BLM 2004a; BLM 2004b). Specific passive and active restoration goals are described for federal lands and have been incorporated into the project design. This approach is in conformance with Designated Management Agencies' plans as described in the Umpqua Water Quality Management Plan (EA, p. 121).

23) National Marine Fisheries Service consultation

Comment: The EA is defective because it fails to analyze and disclose adverse sediment effects to streams using the best available science. The opinion in the EA about wet season logging is conjectural and not supported by scientific or factual evidence. The EA's failure to detect differences in sedimentation between dry season and wet season logging is in error. Since this erroneous analysis could put critical coho habitat at risk of harmful sedimentation, the BLM must seek expert opinion from National Marine Fisheries Service about seasonal restrictions for logging.

Response: The BLM used the best available science in making its determination and relied on the reasonable opinion of its specialized experts when analyzing and disclosing possible sediment effects to streams.

To protect aquatic resources and water quality, ecological protection zones (EPZs) or "no-cut buffers" have been applied in all riparian zones (EA, p. 21). These buffers are designed to protect the root network of typical trees in this area, avoid potential impacts to hydric soils, and avoid sedimentation (EA, p. 22). The width of these buffers are based on site specific field work specifically analyzing soil and water resources (EA, p. 22). Sediment would not be expected to enter critical habitat (CCH) as a result of haul or maintenance of haul roads, with dry condition haul, properly functioning cross drains, and sediment barriers installed, where needed, to prevent sediment delivery into CCH (EA, p. 126). The closest CCH to any proposed treatment unit is 120 feet (EA, p. 126). No direct or indirect effects to fish and aquatic resources are anticipated as a result of implementing the actions proposed in Alternative 2 due to the implementation of Best Management Practices (BMPs) and Project Design Features(PDFs) (EA, p. 129). The utilization of EPZs, and the implementation of BMPs and PDFs will prevent sediment delivery into coho critical habitat.

24) Consistency with late-successional reserve objectives

Comment: Logging of natural stands to 40% canopy is not consistent with objectives of the LSR. We recommend the anticipated decision to limit thinning in natural stands to a 60% canopy or greater that can be verified with moosehorn measurements and expected to withstand blowdown and tree death over the next 30 years. In other words all natural stands logged down to 40% would be red tree vole dead zones for the long-term. LSR thinning must provide for possible expansion of red tree voles and not assure local range contractions.

Response: The commenter has not explained how thinning in natural stands is inconsistent with late-successional reserve (LSR) objectives. All proposed treatments within the Upper Cow project are designed to maintain and enhance LSR characteristics.

The analysis within the Environmental Assessment determined that even with the loss of some red tree vole (RTV) nests, RTVs would persist in the watershed because known RTV sites would be protected and habitat would be retained throughout the planning area and watershed (EA, p. 88). Contrary to the commenters assertion RTVs would continue to persist within the Upper Cow planning area.

25) Sedimentation

Comment: The BLM has once again failed to deliver on promises made in the BLM Water Quality Restoration Plan- Umpqua River Basin- South Umpqua Subbasin- Upper Cow Creek, failed to implement sediment reducing recommendations from the watershed analysis and failed to implement conservation measures from draft coho recovery plan.

Response: The commenter does not specifically state which “promises” the BLM failed to deliver upon. The BLM is not obligated to implement draft versions of plans into the planning process. This project applies Ecological Protection Zones, Best Management Practices, Project Design Features, and seasonal restrictions to ensure that sediment does not enter streams.

26) Future wood inputs to streams

Comment: The action alternatives violate the Aquatic Conservation Strategy and the ESA because proposed logging would reduce the amount of future wood input into stream channels in stands >40 years.

Response: Treatments are designed to enhance resiliency and sustainability to obtain Aquatic Conservation Strategy objectives (EA, p. 21). Empirical and modeling studies suggest that stream wood input rates decline with distance from the stream and the majority of in-channel wood recruitment comes from within 120 feet of the stream channel (ICS 2013: Appendix 3: Item I) (EA, p. 23). To ensure that future wood input to streams is protected the BLM has applied appropriate stream buffers.

27) Stream buffers

Comment: The EA provides no scientific data for reducing the scientifically supported 120 ft buffer to 85 foot for perennial non-fish bearing streams. The BLM cannot arbitrarily reduce the no cut buffer for perennial streams from 120 ft to 85 ft. without scientific justification... The EA provides no scientific data for reducing the scientifically supported 120 ft buffer to 60 foot for intermittent streams.

Response: The BLM explains the rationale for stream buffers within the planning area in multiple sections of the Environmental Assessment (EA) and further explains that the selection of Ecological Protection Zones and Riparian Reserve (RR) buffers are site specific endeavors. The EA states that RR widths are determined based on a typical site potential tree height (200 feet for Upper Cow) in the planning area (EA, p. 21). For an initial protection distance determination the Ecological Protection Width Needs chart (USFS/BLM 1994, p. B-15) is used, and the width of these buffers are based on field visits (EA, p. 21). The EA discloses many sources used in the determination of stream buffers, including but not limited to: Rashin et.al. 2006, *Effectiveness of Timber Harvest Practices for Controlling Sediment Related Water Quality Impacts*; FEMAT 1993, *Forest Ecosystem Management: An Ecological, Economic, and Social Assessment: Report of the Forest Ecosystem Management Assessment*; USFS/BLM 1994, p. B-15, *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl and Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl*; ICS, 2013, *Section 7 of the Endangered Species Act (Streamlining Agreement) for the effects of riparian forest management and restoration on salmonid fishes and their habitats for Northwest Oregon*; and USFS/BLM 2012a, *Northwest Forest Plan Temperature TMDL Implementation Strategy: Evaluation of the Northwest Forest Plan Aquatic Conservation Strategy*.

28) Thinning in riparian areas

Comment: The opinion in the EA about riparian thinning is conjectural and not supported by scientific or factual evidence. Thinning riparian conifer forests generally reduces the production of ecologically functional riparian dead wood (e.g., >30 cm or > 50 cm diameter) in both the short and long term, in correlation with the intensity of the thin (Pollock et al. 2012, Pollock and Beechie 2014).

Response: Contrary the assertion made by the commenter the analysis contained within the Environmental Assessment used empirical and modeling studies which suggest stream wood input rates decline with distance from the stream and the majority of in-channel wood recruitment comes from within 120 feet of the stream channel (ICS 2013: Appendix 3: Item I) (EA, pp. 21 and 121). A no treatment buffer of 120 feet (36.6 meters) would likely retain at least

95% of the wood available for recruitment to the stream from stands that have been harvested in the past (ICS 2013, p. 31: Figure 10) (EA, p. 121).

29) Preparation of an Environmental Impact Statement due to scientific controversy

Comment: We disagree with the draft FONSI. An EIS must be prepared. Thinning LSR natural stands up to 140 years old of trees up to 25”dbh to improve NSO habitat in the long term and protect it from fire is scientifically controversial. The EA failed to discuss the scientific controversy about the use of thinning in LSR to reduce fire risk and speed the development of old growth characteristics. Thinning in older Riparian Reserves to within 60 ft of stream channels is also scientifically controversial. The assertions of no sediment impact to coho salmon critical habitat are conjectural and not based on the best available science.

Response: The BLM has appropriately determined that preparation of an Environmental Impact Statement (EIS) as a result of scientific controversy is not necessary. The determination of whether or not to prepare an EIS rests on whether the proposed federal action will have a significant effect on the quality of the human environment. One element that is weighed in determining significance is the intensity, or severity of the potential impact. The degree, to which the effects are likely to be highly controversial, including scientific controversy, is one factor in that analysis. In the face of scientific controversy, the agency must first be aware of a substantial dispute about the size, nature, or effect of a project, and not mere opposition to components of a project. A substantial dispute exists when evidence casts serious doubt upon the reasonableness of an agency’s conclusions; the commenter has not presented information that would cause the agency to reconsider its conclusion.

The BLM is not required in an Environmental Assessment (EA) to explain every possible scientific uncertainty. The fact that the commenter disagrees with the agency’s conclusion does not invalidate the agency’s decision. The commenter does not present a dispute about the size or nature of the project.

The commenter presents an argument that the effects of the project are in dispute. Contrary to the assertion made by the commenter the analysis contained within the EA demonstrates that, “Vegetation must expand in size to live and a tree cannot grow larger unless its growing space is increased (Oliver & Larson 1996, p.36). This is true even in older trees, because disturbances free up resources for use by residual trees to claim, trees would respond with increased diameter growth to develop large woody structure – a feature desired in late successional reserves (BLM 1999b; LSRA p.72-73, 75-76: RMP p.32) (EA, p. 55). Further, the treatment of fuels within the planning area would reduce surface fire behavior and torching potential by raising the canopy base height, and potential active crown fire spread by reducing canopy bulk density (EA, p. 59). Lastly, riparian thinning is expected to benefit perennial and intermittent streams, fish habitat, and habitat for other aquatic species by promoting species diversity and resiliency to disturbance

in the riparian forest stands. Ecological protection zones (no-cut buffers) have been applied in all riparian zones to protect aquatic resources (EA, p. 21).

The commenter does not present compelling evidence that the effects analysis contained within the EA is incorrect; therefore an EIS is not required and will not be prepared.

30) Fire risk to older stands

Comment: The EA failed to demonstrate a clear risk of fire to older stands since these stands are inherently resilient to fire.

Response: The Environmental Assessment explains that improvements in stand and landscape scale resiliency to fire, changes in climate, and other environmental disturbance processes would likely occur with density reduction. This was demonstrated after a commercially thinned unit faced the flames from the Douglas Complex Fire, resulting in exhibited low fire severity and intensity as fires could not reach their canopies. These thinned stands showed a greater resiliency to survive post-fire than adjacent untreated stands (EA, p. 56).

31) Long-term habitat maintenance

Comment: The EA failed to demonstrate a "greater assurance of long-term maintenance of habitat" since it will remove some of the 20"-25' dbh habitat and subject the remainder to blowdown.

Response: Table G-4 in the Environmental Assessment documents windthrow hazards for all silvicultural prescription and the expectation that following treatment, no change or a decrease over the long term (11+ years) is expected (EA, p. 208).

32) Trade-offs: Late-successional habitat maintenance and logging

Comment: The EA failed to discuss trade-offs between the stated objectives for LSR habitat maintenance and the undesired consequences of logging to achieve those objectives. The EA fails to demonstrate a clear and significant net benefits to the totality of late successional and aquatic objectives.

Response: To achieve a balanced trade-off between obtaining late-successional habitat maintenance and the consequences of logging the BLM included specific Project Design Features (PDFs). For example, road construction was deferred in northern spotted owl nesting, roosting, and foraging habitat in favor of helicopter yarding which was identified as a way to reduce temporary route construction within the late-successional reserve while still achieving the benefits of thinning in late-successional reserve (LSR) stands. Another example is the application of PDFs that restrict tractor yarding to the dry season, thus reducing potential effects to aquatic resources from wet season tractor yarding. The EA discussed trade-offs as explained above and demonstrated that project activities will benefit the LSR.

33) Gap size and blowdown

Comment: The area allocated for gaps in natural stands is too large. The EA:204 says “openings would vary in size (1/4 to 3/4 acre) and constitute approximately 10-15% of the stand.” Gaps comprising 10-15% would be appropriate in plantations but not in older natural stands because this would constitute defacto clearcutting of 44 acres of mature forest. Expected natural blowdown subsequent to thinning will provide gaps over time. There is no need to create artificial gaps when blowdown is expected.

Response: The commenter expresses disagreement with the size of the proposed gaps in natural stands and argues that expected blowdown will create gaps over time. The Environmental Assessment (EA) discloses that in the short-term (0-11 years after treatment) windthrow may increase in areas with larger gaps but over the long-term (11+ years) windthrow is expected to have no change or decrease (EA, pp. 208-209). The analysis within the EA determined that gaps would improve habitat quality in the long term by increasing growth rates of the remaining trees in thinned areas (Miller and Emmingham 2001; Roberts and Harrington 2008), and creating variable habitat conditions across the stand including pockets of high density and small openings that provide improved access to prey species (Harrington et al. 2005) (EA, p. 83).

The analysis contained within the EA explains the intended effects of gap treatments and discloses that windthrow may increase near larger gaps.

34) Scoping notice

Comment: We are very upset that the scoping notice for this project did not alert the public to the fact that this project involves lots of logging of large trees in stands over 80 years in Late Successional Reserves. If we had known this, our scoping comments would have raised the numerous critical issues that need to be addressed in order to justify such logging. Logging in LSRs over 80 years is generally prohibited. The exceptions are narrow and rarely met.

Response: During the initial scoping period for the Upper Cow Project the interdisciplinary team had not yet determined the site specific needs for each stand. Through extensive field work during the development of the project the silviculturist determined the need to request concurrence from the Regional Ecosystem Office (REO) for some of the proposed treatments to better meet the objectives of the late-successional reserve.

The BLM disclosed the age and number of 20 inch trees pre-treatment and post-treatment in the *Upper Cow Late-Successional Reserve Project; Proposed Exemption in the South Umpqua River/Galesville Late-Successional Reserve; November 2015*, which is contained within the Administrative Project Record and posted on the BLMs Upper Cow ePlanning website.

The BLM held an initial coordination meeting with REO members on June 30, 2015 to provide the outline of the project proposal and obtain initial feedback. The final proposed exemption was submitted to the REO on November 12, 2015. The BLM received formal concurrence with the proposal from the REO on April 13, 2016.

35) Unsupported FONSI

Comment: We find that the draft FONSI is unsupported. Commercial logging of large trees in older stands in LSRs is significant and controversial and raises issues that require analysis in an EIS.

Response: The BLM has appropriately determined that preparation of an Environmental Impact Statement (EIS) is not necessary. The determination of whether or not to prepare an EIS rests on whether the proposed federal action will have a significant effect on the quality of the human environment. One element that is weighed in determining significance is the intensity, or severity of the potential impact. The degree to which the effects are likely to be controversial is one factor in that analysis. Controversy is a “substantial dispute about the size, nature, or effect”, and not mere opposition to a proposed project. A substantial dispute exists when evidence casts serious doubt upon the reasonableness of an agency’s conclusions. Accordingly, the BLM must base its conclusions on substantial information and consideration of the crucial factors, but mere difference of opinion does not make an issue highly controversial. The commenter does not describe a dispute with the size, nature, or effect of the project, and therefore has not identified any controversial issues.

36) Logging to save spotted owls/setting precedent

Comment: Analysis and conclusions about fire hazard and owl habitat and logging in the draft FONSI are erroneous, misleading and unsupported. Logging to save spotted owls from fire is controversial, uncertain, and involves unique and unknown risks. Using this flawed rationale to log stands over 80 years in LSR is potentially precedent setting.

Response: The Environmental Assessment (EA) and the Finding of No Significant Impact (FONSI) do not assert that logging will save spotted owls. The EA asserts that fire resiliency can be increased by managing surface fuels to limit the flame length, removing ladder fuels to keep flames from burning into tree crowns where trees have no defense against fire, decreasing crown density, and retaining larger diameter fire resistant trees (Agee and Skinner 2005). Fire hazard and risk within the watershed would be reduced (EA, p. 61). Contrary to the assertion, the FONSI is not erroneous; the FONSI is supported by the analysis contained within EA.

Each late-successional reserve active management proposal is unique. Because of the provisions contained within the *South Umpqua River/Galesville Late-Successional Reserve Assessment* any further proposals to manage stands greater than 80 years old would adhere to the process of

submitting requested exemptions to the Regional Ecosystem Office (REO). Because any proposed deviation from the LSRA requires REO concurrence it is not possible for this project to set precedent.

37) Adverse effects to northern spotted owl and critical habitat

Comment: Logging LSR stands over 80 years will adversely affect northern spotted owls listed under the Endangered Species Act, as well as their critical habitat.

Response: The U.S. Fish and Wildlife Service (USFWS) determined that the Upper Cow project is anticipated to have adverse effects to northern spotted owls (NSO), but is not likely to jeopardize the NSO, and is not likely to adversely modify NSO critical habitat at the subunit or range wide scale (BiOp, p.62). While this project may adversely affect NSO it is not likely to jeopardize NSO or their critical habitat and it will not cause incidental take. The BLM is not required to design projects that do not adversely affect NSO.

38) Degradation to spotted owl habitat

Comment: The draft FONSI does not account for the fact that "treat and maintain" logging prescriptions still degrade spotted owl habitat, even if the habitat still meets minimum criteria. The logged stands may still have 60% canopy cover and minimal snags and down, but logging will deprive spotted owls of more optimal habitat conditions, such as 80% canopy cover and more snags and down wood. This is a potentially significant negative effect.

Response: The analysis within the Environmental Assessment disclosed the following: prescriptions would be modified where needed to retain additional canopy cover for the northern spotted owl. In addition, Standards and Guidelines on Course Woody Debris (CWD), green tree, and snag retention require retaining both living and dead structural elements in harvest units (USFS/BLM 1994b). Snags and CWD would be retained in units within operational safety guidelines (EA, p. 204).

The U.S. Fish and Wildlife Service (USFWS) determined that the Upper Cow project is anticipated to have adverse effects to northern spotted owls (NSO), but is not likely to jeopardize the NSO, and is not likely to adversely modify NSO critical habitat at the subunit or range wide scale (BiOp, p.62). The Commenter's assertion is contrary to the USFWS Biological Opinion determination as the project was not found to have significant negative effects.

39) Competitive interactions between barred owls and spotted owls

Comment: This project will exacerbate adverse competitive interactions between barred owls and spotted owls.

Response: Removal or downgrade of habitat reduces the overall amount of available habitat and can therefore increase competition between these two species as habitat becomes increasingly limited. The effect of the vegetative treatments included under Alternate 2 is expected to have an extremely limited effect on competitive interactions between these two species because at most a very small amount (106 acres, or 0.8%) of the overall available nesting, roosting, foraging habitat would be lost (removed or downgraded) as a result of project implementation. The effect would be further reduced because the habitat loss is spread throughout the planning area in many small non-contiguous locations (EA, p. 77).

40) Carbon and greenhouse gasses

Comment: Logging will release carbon and add greenhouse gases to the atmosphere. This will adversely affect ecosystems and life support systems globally, as well as harm human health and wellbeing around the World.

Response: The high-end volume estimate for Alternative 2 would produce approximately 0.0000203% of the 2015 worldwide estimated carbon dioxide emissions and approximately 0.0001355% of the 2015 United States estimated carbon dioxide emissions. The low-end volume estimate for Alternative 2 would produce approximately 0.0000172% of the 2015 worldwide estimated carbon dioxide emissions and approximately 0.0001145% of the 2015 United States estimated carbon dioxide emissions. Carbon dioxide emissions resulting from the project in each of the estimates is very small when compared to worldwide and United States emissions estimates (EA, p. 195). The analysis contained within the Environmental Assessment does not support the commenter's assertion.

41) Violation of the Northwest Forest Plan and National Forest Management Act

Comment: Logging LSR stands over 80 years does not meet the NWFP standards & guidelines for risk reduction treatments, this project thus threatens to violate federal laws (NFMA) intended to protect the environment.

Response: The BLM received Regional Ecosystem Office (REO) concurrence for treatments in stands greater than 80 years of age. The REO reviewed the BLM's report: *South Umpqua River/Galesville Late-Successional Reserve Assessment* and based upon the review by the Late-successional Reserve Working Group, concurs with the Grants Pass Field Office's finding of consistency with the Standards and Gridlines under the Northwest Forest Plan (REO Memorandum, p. 1). The referred to law, the National Forest Management Act only pertains to Forest Service managed lands.

42) Trade-offs from logging

Comment: The EA does not address tradeoffs as we requested in our scoping comments. Significant tradeoffs include: commercial logging will directly remove (and reduce future recruitment of) ecologically valuable components of late successional habitat including, large trees, snags, down wood, vegetation diversity, complex multilayered habitat, microclimate buffering functions.

Response: To achieve a balanced trade-off between obtaining late-successional habitat objectives and the effects of logging the BLM included specific project design features and silvicultural prescription elements. Some examples of protection measures include, tree swap stipulations, Legacy Tree Culturing treatments, moving slash/duff away from the base of trees when underburning (EA, p. 34), skips and gaps, and fan settings at the culmination of cable landings to reduce negative habitat impacts.

43) Logging young stands versus logging older stands

Comment: The EA does not distinguish between the effects of logging young stands (where the benefits of thinning might outweigh the adverse effects) versus logging in older stands (where any alleged ecological benefits are typically outweighed by adverse effects).

Response: The analysis within the Environmental Assessment pertains to thinning stands which are 30 to 140 years of age. The overall criteria for silviculture treatments are that they contribute to the creation of late-successional forest conditions regardless of stand age (EA, p. 55).

44) Logging captures future mortality

Comment: The stands over 80 years in this project exhibit vigor and growth that are well within the acceptable range for development of late successional forest habitat. In fact, tree vigor is not associated with late successional habitat. Mortality is an essential component of late successional habitat. Logging will make these stands too vigorous by "capturing mortality" and exporting valuable wood offsite.

Response: The commenter has not explained how vigor and growth of trees within the planning area was measured. The BLM collected data during the 2010-2013 survey seasons through formal stand exams, which included vigor and growth measurements (EA, p. 47). The proposed treatments are thinnings, which do not capture all mortality. Additionally, many areas would be deferred from treatment. These areas include Recovery Action 32 habitat retention patches; Recovery Action 10 prioritized areas, riparian reserves currently meeting Aquatic Conservation Strategy objectives, red tree vole habitat patches, and botany buffers. These untreated areas along with the retention of "skips" will ensure that late-successional habitat areas are retained across

the landscape in the short-term and long-term. The Upper Cow project treatments ensure that not all mortality is captured.

45) EA is based on unsupported assumptions

Comment: The EA is premised on an unsupported assumption that the "project will improve and/or maintain the vigor and growth of LSR stands allowing these areas to more quickly obtain late successional forest legacies such as coarse woody debris, green trees, snags, and late successional patches."

Response: The commenter does not explain why the information contained within the Environmental Assessment is unsupported. The analysis used scientific sources and the expertise of the project silviculturist to conclude that project activities will improve and maintain the growth and vigor of late successional forest legacies.

46) Logging to improve habitat conditions

Comment: Mature forests over 80 years do not need to be logged to improve habitat conditions. Natural processes are sufficient to bring about the conditions favorable for wildlife that depend on late successional habitat. Any alleged ecological benefits of logging in older stands are more than offset by adverse effect from logging such forests. See Heiken, Doug. 2009. The Case for Protecting Both Old Growth and Mature Forests, Version 1.8. Oregon Wild.
<http://dl.dropbox.com/u/47741/Mature%20Forests%2C%20Heiken%2C%20v%201.8.pdf>

Response: The commenter expresses their preference for the management of forest stands over 80 years old. The opinion is further supported by a document that does not appear to be from a peer reviewed source or scientific journal; instead it appears to be an article written for an interest group's website. The BLM must use information of high quality and scientific integrity in its NEPA analyses 40 CFR 1500.1(b) and 1502.24.

While natural processes can bring about late-successional habitat, management intervention can often accelerate the develop of large fire resilient tree structure, (RMP 1995, p. 188) (EA, p. 55), increase diameter growth to development of large woody structure (Tappeiner et al. 2007) (EA, p. 55) which will provide structural and biological legacies necessary to maintain ecosystem processes throughout the management cycle (RMP 1995, p. 188) (EA, p. 56). The analysis within the Environmental Assessment has shown that the proposed treatments will benefit late-successional habitat within the planning area.

47) Violation of Northwest Forest Plan Standards & Guidelines for risk reduction

Comment: This project does not meet the NWFP standards & guidelines for risk reduction logging in LSRs: While risk reduction efforts should generally be focused on young stands, activities in older stands may be appropriate if: (1) the proposed management activities will

clearly result in greater assurance of long term maintenance of habitat, (2) the activities are clearly needed to reduce risks, and (3) the activities will not prevent the Late Successional Reserves from playing an effective role in the objectives for which they were established.

Response: The analysis contained within the Environmental Assessment (EA) demonstrates that activities in older stands are appropriate because they will assure long term maintenance of habitat, clearly reduce risk, and the activities will not prevent the late-successional reserve from achieving the goals for which it was established.

Recent trends in southwest Oregon illustrate that fire has been converting mature forest structure at a higher rate than harvest, making the retention of these types of forests problematic in dry forested ecosystems (Courtney et al. 2004; Spies et al. 2006). In general terms, wildfire would remain the most immediate hazard to late-successional forest habitat (NRF) and its associated species (Courtney et al. 2004), including the northern spotted owl (NSO) (EA, p. 71). Fire resiliency can be increased by managing surface fuels to limit the flame length, removing ladder fuels to keep flames from burning into tree crowns where trees have no defense against fire, decreasing crown density, and retaining larger diameter fire resistant (Agee and Skinner 2005). Fire hazard and risk within the watershed would be reduced (EA, p. 61). Thinning and skips and gaps would work to improve habitat quality in the long term by increasing growth rates of the remaining trees in thinned areas (Miller and Emmingham 2001; Roberts and Harrington 2008), and creating variable habitat conditions (EA, p. 83).

The Action Alternatives are expected to result in long term beneficial effects to NSO and critical habitat because the thinning treatments would accelerate the development of the relatively homogeneous stands toward late-successional habitat faster than if the stands were left untreated (Hayes et al. 1997) (EA, p. 84). Contrary to the assertions made by the commenter the analysis within the EA demonstrates that the decided upon activities will assure long term habitat maintenance, are needed to reduce risk, and will not prevent the late-successional reserve from achieving its intended objectives.

48) Logging interferes with natural processes

Comment: The EA says that LSR objectives include: "Maintain natural ecosystem processes such as gap dynamics..." Logging will interfere with natural processes, especially small contagious tree fall events described in Lutz (2005).

Response: The objective of silvicultural systems proposed for the late-successional reserve would be to develop old-growth characteristics including snags, down logs, large trees, canopy gaps, multiple layers, and diverse species composition (BLM 1999b, p.1). The No Action scenario would likely rely on the lengthy process of succession to create this complex forest structure (EA, p. 53). The Environmental Assessment (EA) discusses the usefulness of thinning: the disturbance tool of thinning, as opposed to wildfire, introduces a controlled intervention that

reduces density and guides the stand into a developmental pathway that more safely meets late successional forest conditions (EA, p. 17). The analysis within the EA does not support the notion that logging will interfere with the objectives of the late-successional reserve.

49) Project is inconsistent with the late-successional reserve assessment

Comment: This project is inconsistent with the LSR Assessment recommendation to focus restoration (including risk reduction) on "overstocked young plantations."

Response: The *South Umpqua River/Galesville Late-Successional Reserve Assessment* states that, "risk reduction efforts should **generally** [emphasis added] be focused on young stands, activities in older stands may be appropriate if, management activities result in long term maintenance of habitat, activities are needed to reduce risks, and the activities will not prevent the area from achieving late-successional objectives. As explained in response to Comment 47, the analysis within the Environmental Assessment demonstrates this project is consistent with the Late-Successional Reserve Assessment.

50) Review and consider certain information

Comment: The agency must carefully review and document their consideration of all the reasons not to log mature forests set forth in this paper: Doug Heiken 2009. The Case for Protecting Both Old Growth and Mature Forests. Version 1.8 April 2009.
<http://dl.dropbox.com/u/47741/Mature%20Forests%2C%20Heiken%2C%20v%201.8.pdf>.

Response: The BLM considered relevant, appropriate, and available information during the Environmental Analysis process. The BLM used information of high quality and scientific integrity during the analyses, including information provided as part of public involvement 40 CFR 1500.1(b) and 1502.24. NEPA documents are to be analytic, rather than encyclopedic, thus are not required to contain a review and document the considerations contained within all non-peer reviewed white paper submissions. 40 CFR 1500.4(b) and 1502.2(a). The BLM relied upon the reasonable opinion of its own specialized experts and utilized the best available science when making effects determinations.

51) Canopy cover and structural conditions

Comment: When the agency intends to "treat and maintain" spotted owl habitat, the prescriptions must address both canopy cover AND structural conditions important to spotted owls and their prey. When logging will remove large trees, reduce recruitment of large trees/snags/downwood, crush and kill understory trees and shrubs, the NEPA analysis must fully disclose the adverse effects on spotted owls and their prey when habitat quality is reduced from optimal to barely suitable.

Response: A specific goal of the prescription is to leave the largest and oldest trees in the stand, and retain all large hardwoods and snags. A substantial portion of the physical structure of the habitat in the treatment areas would still be present after implementation. Therefore, the treatment effects to habitat are mostly related to changes in canopy cover and the understory composition (EA, p. 79). Additionally, the spacing, timing, and the retention of key habitat features are likely to avoid adverse impacts to northern spotted owls (NSOs) with respect to prey availability; although localized, short-term changes in prey species distribution and abundance are likely to occur within treated stands (EA, p. 79).

The BLM submitted a Biological Assessment which documents the effects of the Upper Cow project on northern spotted owls and their habitat, based upon the analysis contained within the Environmental Assessment (EA). In response the USFWS determined that the Upper Cow project is anticipated to have adverse effects to NSOs, but is not likely to jeopardize the NSO, and is not likely to adversely modify NSO critical habitat at the subunit or range wide scale (BiOp, p.62). The EA fully discloses the effects to NSO and their prey and is supported by the USFWS BiOp determination that the project may adversely affect spotted owls but it not likely to jeopardize NSO or adversely modify critical habitat. The BLM has fully disclosed anticipated effects to NSO, their prey, and their habitat.

52) Logging will degrade spotted owl suitable habitat

Comment: The NEPA analysis must show how removing large amounts of woody structure will in fact "maintain" the woody structure needed to develop high quality spotted owl habitat. Mature forests, if not logged, will recruit more wood more quickly. Since snags and down wood are currently lacking in the project area, not logging will actually develop desired late successional characteristics more quickly than logging will. Therefore, logging will not "maintain" but will in fact degrade and retard development of spotted owl suitable habitat.

Response: Vegetation must expand in size to live and a tree cannot grow larger unless its growing space is increased (Oliver & Larson 1996, p.36). Trees can also increase their diameter growth in less dense stands (Tappeiner et al. 2007, p.127). This is true even in older trees. Because disturbances free up resources for use by residual trees to claim, trees would respond with increased diameter growth to develop large woody structure – a feature desired in late successional reserves (BLM 1999b; LSRA p.72-73, 75-76; RMP p.32) (EA, p. 55). While the implementation of this project under Alternative 2 would result in the downgrade of 82 acres of nesting, roosting, foraging habitat to dispersal-only habitat, these treatments would have long term beneficial effects to the forest structure and overall forest health. Treatments under Alternative 2 would reduce competition and increase the vigor of the residual trees left in the stand (Latham and Tappeiner 2002), while simultaneously reducing ladder fuels and decreasing the stand fire hazard rating.

53) Commercial logging and the maintenance of spotted owl habitat

Comment: The concept of logging mature forests to "treat and maintain" NRF habitat, does not have much meaning in moist forests, because there is no "excess biomass" that needs to be removed in mature moist forests, and any commercial removal of biomass will just reduce the future recruitment of much needed dead wood habitat elements that are important to the owl and in short supply across the landscape as a result of past and ongoing logging. The agency needs to explain how commercial logging will maintain owl habitat, when dead wood is in short supply and logging will make it worse instead of better.

Response: The BLM has explained that commercial treatments can act as a substitute for natural disturbance (EA, p. 17), enhancing the characteristics of the late-successional reserve. The analysis within the Environmental Assessment documents coarse woody debris (CWD) inventories in 27 representative units with potential commercial extraction, using a transect length of 200 feet, a sampling of this inventory demonstrated down woody total of 657 feet/acre yielded 18.5 feet/acre which is in compliance with 1995 Medford District RMP.

54) Logging effects verses wildlife effects to northern spotted owl

Comment: Of particular concern is the 291 acres of >80 year old trees planned for cutting. The best science as cited in the comments from Oregon Wild, Doug Heiken, et al, which I am referencing here stipulates that cutting >80 year old trees to protect from a hypothetical fire event is not in the best interest of the Northern Spotted Owl and it's habitat, for various reasons, including the widely accepted scientific finding that logging has been statistically shown to be far more harmful to this owl's habitat and precarious perch as a threatened species than is wildfire.

Response: During the planning process for the Upper Cow Project the interdisciplinary team of resource specialists used both the Recovery Action 10 process and Recovery Action 32 (USFS/BLM/USFWS 2013) to protect high quality and high value spotted owl habitat and known sites. A total of 591 acres were dropped from the proposal (EA, p. 12). This project was designed to maintain and enhance late successional habitat. The analysis discusses recent trends in southwest Oregon which illustrate that fire has been converting mature forest structure at a higher rate than harvest, making the retention of these types of forests problematic in dry forested ecosystems (Courtney et al. 2004; Spies et al. 2006) (EA, p. 71). In general terms, wildfire would remain the most immediate hazard to late-successional forest habitat (NRF) and its associated species (Courtney et al. 2004), including the NSO (EA, p. 71). Additionally, fire resiliency can be increased by managing surface fuels to limit the flame length, remove ladder fuels to keep flames from burning into tree crowns where trees have no defense against fire, decreasing crown density, and retaining larger diameter fire resistant trees (Agee and Skinner 2005). Fire hazard and risk within the watershed would be reduced (EA, p. 61).

55) Preparation of an Environmental Impact Statement due to critical habitat

Comment: Thank you for your kind attention to our serious objections to implementing this project with said FONSI. In fact, in our opinion, rather than an EA, only an EIS would be a credible approach to moving forward with this project given what is at stake in terms of critical habitat.

Response: The BLM has appropriately determined that the preparation of an Environmental Impact Statement is not necessary. The Upper Cow team of specialists considered critical habitat when planning the project. Adverse effects in critical habitat located outside of the home ranges of known sites were only proposed in areas where the habitat could be improved in the long-term (i.e. proposed treatments in capable, dispersal, or roosting/foraging habitat within high habitat suitability according to the relative habitat suitability model); treatments would improve stand resiliency; or where the ecological needs of the stand outweighed the owl habitat needs (i.e. pine restoration on a ridge that is in low habitat suitability according to the relative habitat suitability model) (EA, p. 13). The BLM formally consulted with US Fish and Wildlife Service (USFWS) on the elements of the project and the USFWS determined the Upper Cow Project is not likely to adversely modify northern spotted owl critical habitat at the subunit or range wide scale (BiOp, p.62).

56) Stewardship contracting

Comment: The Association opposes the proposed stewardship proposal contracting as described in the Upper Cow EA. The Association has deep concern with stewardship projects because they generate no receipts to be shared with counties.

Response: The commenter expresses their opinion about the contracting method used to implement the projects analyzed in the Upper Cow Environmental Assessment. This project occurs within the Late Successional Reserve (LSR) Land Use Allocation which is reserved for the development of old growth habitat and old growth related species (BLM 1995, pp. 21, 32; NWFP 1994b, p. B-1). Unlike BLM projects that occur on the Matrix Land Use Allocation, which are designed to generate revenue for O&C counties, this project occurs within the LSR and the primary focus was not to generate receipts.

57) Denuding of forests

Comment: If the decision of the Field Office is to expand the denuding of the once beautiful forests implemented the towns will dwindle away homeowners will struggle to sell their property and move to another area as quickly as possible.

Response: The Upper Cow Project is a proposal to thin forest areas. The commenter's interpretation of the effects of thinning on the landscape and the community are not supported by the Upper Cow Environmental Assessment.

58) *Tourist Revenue*

Comment: Grants Pass has lost half of its commercial ventures to internet shopping. Why make it worse by reducing or even eliminating tourist revenue.

Response: The analysis contained within the Environmental Assessment demonstrates that the recreational opportunities in the Upper Cow area will not be negatively affected by the Action Alternatives because no BLM managed sites or Douglas County managed sites will be affected during project implementation (EA, p. 194). The EA did not assess the effects of the project on commerce in Grants Pass.

Appendix D Upper Cow Erratum

The Upper Cow Late Successional Reserve Environmental Assessment (EA) (DOI-BLM-ORWA-M070-2015-0009-EA) and Draft Finding of No Significant Impact (FONSI) were released for a 30-day public review period on February 9, 2016. The Decision Record and the Final FONSI for the Upper Cow Project will be released on July 7, 2016 for a 15-day protest period.

This Erratum explains that the analysis contained within the EA has not been altered by a corrected U.S. Fish and Wildlife Service (USFWS) reference; a typo in the Vegetation section; the Plum Creek Right-of-Way (ROW) proposal which occurs within the Upper Cow planning area; or by updated soil calculations for the planning area. All project updates are explained below.

Reference Correction

Page 131 of the Upper Cow EA refers to a 2004 U.S. Fish and Wildlife Service (USFWS) Biological Opinion (BiOp). The referenced USFWS BiOp should be “USFWS. 2014. Endangered and Threatened Wildlife and Plants; Threatened Species Status for West Coast Distinct Population Segment of Fisher, in the Federal Register on October 7, 2014 (Federal Register, Vol 79, no. 194, 10/7/14 pgs. 604190-60443).” The document was cited correctly in Chapter 5, References (EA, p. 159).

Typo Correction in Vegetation

Page 56 of the Upper Cow EA, in Chapter 3.1 Vegetation, under the Cumulative Effects analysis of 3.1.3 Action Alternative 2 – the first sentence on the last paragraph on the page should read: “Decreased stand densities would increase short term (0-10 years) and long term (> 11 years) resiliency.”

Plum Creek ROW

On April 30, 2016 the Grants Pass Field Office received a request for a crossing plat under reciprocal agreement M-605 to facilitate harvest operations in T32S-R4W-06. The request included the renovation of approximately 634 feet of existing road on BLM administered land and limited areas of tailhold and tramways to allow ingress and egress to Plum Creek land.

The existing road bed is 16 feet wide and will be renovated to hauling standards which includes placing pit run rock on the road surface and installing ditches on each side of the road. The road will be blocked/barricaded following use. The road is located along a ridge and traverses through a second growth stand. Renovation will require the removal of approximately ten trees greater than eight inches at diameter breast height. The road will end on Plum Creek land and any needed landings will be restricted to their ownership.

Due to the location of the route on the ridge in a location that lacks hydraulic connectivity, and the installation of ditches adjacent to the existing roadbed surface there are no expected direct, indirect, or cumulative effects to hydrologic features within the Upper Cow planning area. Cumulatively there would be no effect to special status fish species (including Oregon Coast (OC) Coho Salmon, OC Steelhead, Oregon Coast Chinook, and Umpqua Chub) or fish bearing streams including Coho Critical Habitat.

The Upper Cow planning area does not fall within the range of the four federally listed plants found within the Medford District. Thus, even with this ROWs addition to the Present and Reasonably Foreseeable Activities there would be no cumulative effect to listed plant species from the Action Alternatives. Due to the young stand age and the pre-existing road bed of the ROW, this project is not expected to cause effects to Special Status and Survey and Manage vascular and nonvascular species within the planning area.

The ROW site was determined to be capable northern spotted owl (NSO) habitat. The area is within the home range of two NSO sites but is outside of core or nest patches. Due to the location of the proposed ROW on the ridge and the second growth nature of the stand, there are no anticipated direct, indirect, or cumulative effects to NSO or NSO critical habitat within the planning area. The stand is less than 80 years old so the area will not be surveyed for red tree voles. This is consistent with the 2001 Record of Decision and Standards and Guidelines. There will be no effects to wildlife species from the ROW proposal.

The location of the existing road on the ridge, the small scale of the request, and the minimal removal (~ 10 trees > 8 inches DBH) of trees will not contribute direct, indirect, or cumulative effects when compared to the effects analysis contained within the Upper Cow EA.

Soil – Productivity and Compaction

Chapter 3.4 Soils – Productivity and Compaction analysis contained within the EA is adjusted with reduced acres and resulting compaction thresholds for commercial extraction activities for both Action Alternatives. The analysis below contains the updated numbers and supplements the analysis in the EA. While the information has been updated; the effects analysis does not exceed thresholds analyzed in the 1994 Medford District FEIS RMP.

3.4 Soils – Productivity and Compaction

3.4.3 Action Alternative 2

Direct and Indirect Effects

Alternative 2 proposes 1,071 acres of commercial extraction activities, 0.6 miles of new temporary route construction, 1.60 miles of existing temporary route renovation/reconstruction, and 63.4 miles of existing road maintenance. Best Management Practices (BMPs) in the 1995

RMP (p. 166) describe the use of designated skid roads within stands to limit horizontal soil compaction to less than 12% of the harvest area. These activities would result in an estimated 30.7 acres of soil compaction and displacement over new and existing footprints and would reduce soil productivity by an estimated 1% in the PA. Total compaction/displacement associated with new and existing temporary routes, tractor skid trails, landings and cable yarding corridors would account for an average of approximately 2.9% per unit (based on horizontal distance). Each proposed Upper Cow Project harvest unit would be below 12% compaction and 5% productivity loss as analyzed in the 1994 Medford District FEIS RMP. Units proposed for Understory Reduction would not contribute to soil compaction or productivity loss, since no extraction is proposed for these units.

With the implementation of Alternative 2, soils would return to the same productivity range within 3-5 years following BMP guidelines. Rehabilitation of skid trails would accelerate restoration of productivity.

3.4.4 Action Alternative 3

Direct and Indirect Effects

Alternative 3 is similar to Alternative 2 except that considerably less forestland would be restored to a condition that meets late-successional habitat. This Alternative developed from differentiating stand ages rather than identifying stand conditions and the need for treatment. Alternative 3 proposes 778 acres of commercial extraction activities, 0.29 miles of temporary route construction, 1.42 miles of existing temporary route renovation/reconstruction, and 57.11 miles of existing road maintenance. Best Management Practices (BMPs) in the Medford District Resource Management Plan (RMP, p.166) describe the use of designated skid roads within stands to limit horizontal soil compaction to less than 12% of the harvest area. These activities in Alternative 3 would result in 5.38% compaction per unit. Total compaction/displacement associated with temporary routes, tractor skid trails, landings and cable yarding corridors would account for approximately 3% and would reduce soil productivity by an estimated 1%. Each proposed Upper Cow Project harvest unit would be below 12% compaction and 5% productivity loss as analyzed in the 1995 Medford District FEIS RMP.