United States Department of Agriculture
Forest Service
Pacific Northwest Region
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503-808-2468

File Code: 1570
Date: December 19, 2012

Karen Coulter
Director
League of Wilderness Defenders-Blue Mountains Biodiversity Project
27803 Williams Lane
Fossil, OR 97830

CERTIFIED MAIL – RETURN RECEIPT REQUESTED
NUMBER: 7010 1870 0000 4162 4986

Dear Ms. Coulter:

This constitutes my decision, pursuant to 36 CFR 215.18(b)(1), on your appeal (#13-06-00-0008-215) of Forest Supervisor John Allen's Record of Decision (ROD) for the Ogden Vegetation Management Project and Forest Plan Amendments Final Environmental Impact Statement (FEIS).

Project Overview: On September 14, 2012, John Allen, Forest Supervisor for the Deschutes National Forest signed a ROD for the Ogden Vegetation Management Project and Forest Plan Amendments FEIS. His decision includes the following activities:

- 14,422 acres will be entered for vegetation management
  - 7,663 acres will receive commercial harvest treatments (primarily thinning, with 954 acres of seed tree in lodgepole) in combination with a natural fuels treatment;
  - 5,284 acres will receive harvest treatments without a natural fuels treatment;
  - 1,475 acres will be entered only for natural fuels reduction;
- Approximately 9.5 miles of temporary road will be needed to access the harvest units
  - 5 miles will be newly impacted ground;
  - 4.5 miles will be located where previous logging systems are still evident; and
- Two non-significant Forest Plan Amendments
  - Standard M9-27 to allow for visible results from management activities within retention foreground areas for 5 years due to the use of underburning;
  - Standard M9-90 to allow for the size of the Ogden foreground prescribed fires.

Pursuant to 36 CFR 215.17, an attempt was made to seek informal resolution of the appeal. The record indicates that informal resolution was not reached.

My review of this appeal has been conducted in accordance with 36 CFR 215.18, *Formal review and disposition procedures*. I have reviewed the appeal record, including the recommendations of the Appeal Reviewing Officer. A copy of his recommendation is enclosed. The Appeal Reviewing Officer focused his review on the appeal record and the issues that were raised your appeal.

Appeal Decision

After a detailed review of the record and the Appeal Reviewing Officer's recommendation, I affirm the Responsible Official's decision for the Ogden Vegetation Management Project and

deny your requested relief.

This decision constitutes the final administrative determination of the Department of Agriculture [36 CFR 215.18(c)].

A copy of this letter will be posted on the national appeals web page at http://www.fs.fed.us/appeals.

Sincerely,

/s/ Margaret Mitchell (for)

KENT P. CONNAUGHTON
Regional Forester

cc: John A Laurence
Susan Skakel
Susan Skakel
Gery Ferguson
Beth Peer
Debbie Anderson
Adam A Felts
Myrna R Neil

Enclosure

United States Department of Agriculture | Forest Service | Umatilla National Forest | 72510 Coyote Road Pendleton, OR 97801 541-278-3716

File Code: 1570 **Date:** December 14, 2012
Route To:

Subject: Appeal Recommendation, Ogden Vegetation Management Project

To: Regional Forester, R6

Project Overview: On September 14, 2012, Deschutes National Forest Supervisor John Allen signed a Record of Decision (ROD) for the Ogden Vegetation Management Final Environmental Impact Statement (FEIS). This decision includes the following activities:

- 14,422 acres will be entered for vegetation management
  - 7,663 acres will receive commercial harvest treatments (primarily thinning, with 954 acres of seed tree in lodgepole) in combination with a natural fuels treatment
  - 5,284 acres will receive harvest treatments without a natural fuels treatment
  - 1,475 acres will be entered only for natural fuels reduction;
- Approximately 9.5 miles of temporary road will be needed to access the harvest units
  - 5 miles will be newly impacted ground
  - 4.5 miles will be located where previous logging systems are still evident; and
- Two non-significant Forest Plan Amendments
  - Standard M9-27 to allow for visible results from management activities within retention foreground areas for 5 years due to the use of underburning
  - Standard M9-90 to allow for the size of the Ogden foreground prescribed fires.

One appeal was filed by the League of Wilderness Defenders, Blue Mountain Biodiversity Project (#13-06-00-0005-215). The appellant requested that the decision be withdrawn and be modified to address the objections presented in their statement of reasons. Appellant also requested that the project be revised to ensure consistency with law, regulation, policy, and Presidential directives. The record indicates that informal resolution was not reached with the appellant.

Review and Findings

My review was conducted in accordance with 36 CFR 215.19 to ensure that the analysis and decision are in compliance with applicable laws, regulations, policies, and orders. The appeal record, including the appellant's issues, has been thoroughly reviewed. Having reviewed the FEIS, ROD, and the project record as required by 36 CFR 215.19(b), I conclude the following:

- The decision clearly describes the actions to be taken in sufficient detail that the reader can easily understand what will occur as a result of the decision.
- The selected alternative will accomplish the purpose and need established.
- The decision is consistent with policy, direction, and supporting evidence. The record

contains documentation regarding resource conditions and the Responsible Official's decision document is based on the record and reflects a reasonable conclusion.

- The record reflects that the Responsible Official provided adequate opportunity for public participation during the analysis and decision making process. The Responsible Official's efforts allowed interested publics the opportunity to comment and be involved in the proposal.

After considering the claims made by the appellants and reviewing the record, I found that the Responsible Official conducted a proper and public NEPA process that resulted in a decision that is consistent with the Deschutes National Forest LRMP, as amended. I found no violations of law, regulations, or Forest Service policy.

Recommendation

After reviewing the appeal record, I recommend affirming the decision. I believe that the project documentation adequately supports the Forest Supervisor's decision with regards to all appeal points raised by the appellant.

Enclosed with this memo are my responses to each appeal issue.

JOHN LAURENCE
Acting Forest Supervisor

cc: Debbie Anderson, Adam A Felts

Enclosure

Ogden Vegetation Management Project
Final Environmental Impact Statement (FEIS)
Appeal Statement and Responses
Bend-Fort Rock Ranger District
Deschutes National Forest
December 2012

Appellant	**Appeal Number**
League of Wilderness Defenders - Blue Mountains Biodiversity Project (LOWD)	13-06-00-0008-215

Project Design Flaws - Vegetation and Slash Treatment

Appellant Statement #1: Appellant states that the project fails to protect the environment through retention of all mature and old characteristic trees of all species regardless of size, diameter or condition. LOWD at 7.

Response: I find that the Responsible Official adequately addressed the protection and retention of trees with old tree characteristics.

The Code of Federal Regulations (CFR) at 40 CFR 1508.20(b) directs the agency to minimize project impacts by limiting the degree or magnitude of the action and its implementation.

Direction in the Deschutes National Forest (NF) Land and Resource Management Plan (LRMP) as amended by the Eastside Screens, which provides for retention of trees ≥21" dbh, is consistent with the selected alternative. ROD at 8; FEIS at 11.

Resource protection measures 1 and 2 necessitates the retention of ponderosa pine trees less than 21" dbh with old tree characteristics (from Van Pelt 2008) except where they are either: 1) ladder fuels which pose a threat to larger diameter trees or 2) dwarf mistletoe infected and contribute to infection potential of desired understory trees. Ponderosa pine old tree characteristics include all of the following: 1) orange bark with plates generally more than three times wider than the darker fissures that separate them, 2) rounded crown, and 3) below the main crown, few if any dead branches present and knots not noticeable. FEIS at 37; ROD at 28. In addition, regardless of species, no trees over 21# would be cut, thus protecting large, old trees.

Appellant Statement #2: Appellant states that the project fails to protect the environment through no logging of trees >16" dbh in lodgepole pine and mixed conifer plant association groups (PAGs). LOWD at 8.

Response: I find that the Responsible Official complied with the direction provided by the Deschutes NF LRMP as amended by the Eastside Screens.

The Deschutes NF LRMP, as amended by Eastside Screens, directs the agency to retain trees ≥21" dbh. The regulation at 40 CFR 1502.16 requires the agency to consider the impacts of the proposed action and any alternative on the human environment.

The selected action complies with Deschutes NF LRMP as amended by Eastside Screens through the retention of trees ≥ 21" dbh. FEIS at 11. In reviewing the FEIS, it is clear that the Responsible Official considered the effects of commercial harvest of trees > 16" dbh in lodgepole pine and adequately addressed the issue by selecting Alternative 3 which reduces the amount of regeneration harvest in lodgepole pine PAG's by 362 acres thus retaining more acres of late serial lodgepole pine. ROD at 5. The Responsible Official addresses the issue of stand type and tree species in the Forested Vegetation section of the FEIS. FEIS at 68 to 136.

Appellant Statement #3: Appellant states that the project fails to protect the environment through no logging in fir co-dominant and moist mixed conifer plant PAGs. LOWD at 8.

Response: I find that the appellant's statement is unclear when it comes to what PAG he is discussing or concerned about since the Ogden EIS proposes minimal activities in the Mixed Conifer Wet PAG. In addition, knowing the activities that the appellant prohibits and not the resource quality they promote makes it difficult for a response. Nonetheless, I find that the Responsible Official adequately considered the resource effects on dry site and Mixed Conifer Wet PAGs, yielding a sound proposed action.

The regulation at 40 CFR 1508.20(b) directs the agency to minimize project impacts by limiting the degree or magnitude of the action and its implementation. The regulation at 40 CFR 1502.16 requires the agency to consider the impacts of the proposed action and any alternative on the human environment.

The Responsible Official thoroughly describes where activities are planned and what effects might occur. FEIS at 5 to 6, 118 to 123; Appendix A. In addition, the Ogden FEIS describe how the activities follow the Deschutes NF LRMP. FEIS at 124 to 128.

Appellant Statement #4: Appellant states that the project fails to protect the environment through no requisite light-on-the-land equipment and methods protecting subsurface soil communities essential for forest resilience and vigor, and forest soil hydrological functioning. LOWD at 8.

Response: I find that the Responsible Official adequately addresses the protection of soil quality, and forest soil hydrologic function.

The regulation at 40 CFR 1508.20(b) directs the agency to minimize project impacts by limiting the degree or magnitude of the action and its implementation. The Deschutes NF LRMP Standard and Guidelines SL-1 and SL-3 provide for the protection of soil quality. FEIS at 357. The Pacific Northwest Region developed soil quality standards and guidelines to limit detrimental soil disturbances with management activities (Forest Service Manual [FSM] 2520, R-6 Supplements No. 2500-98-1). Region 6 guidance supplements the Deschutes LRMP standards and guidelines which are designed to protect or maintain soil productivity and describes detrimental soil impacts. FEIS at 358.

The Responsible Official proposed the use of ground-based equipment for vegetation management treatments. The treatments would increase the amount and distribution of soil impacts within the activity areas proposed for harvest treatments. The development and use of temporary roads, log landings, and skid trails systems are the primary sources of new soil disturbance capable of affecting soil productivity. Most notably, soil impacts would occur on and adjacent to heavily-used areas where multiple equipment passes typically cause detrimental soil compaction. Resource protection measures,

including Best Management Practices (BMP's), Project Design Features (PDFs), and mitigations, would be applicable to all proposed activity units and are designed to avoid or minimize the extent of soil disturbance between main skid trails and away from log landings and mitigate these impacts on skid trails and landings when necessary to meet LRMP standards. As a result, the proposed activities are expected to maintain soil productivity within all activity units proposed for harvest, harvest and fuels, or just fuels treatment under Alternative 3. FEIS at 379.

Appellant Statement #5: Appellant states that the project fails to protect the environment because of insufficient trees per acre retention to comply with forest ecological integrity, habitat structure, and carbon sequestration appropriate for localized PAG forest mosaic conditions. LOWD at 8.

Response: I find that the Responsible Official has adequately addressed the protection of the environment related to retention of trees per acre by framing proposed treatments based on the departure from the Historic Range of Variability (HRV).

The Deschutes LRMP as amended by the Eastside Screens directs the agency to "[c]haracterize the difference in percent composition of structural stages between HRV and current conditions. Identify structural conditions and biophysical environment combinations that are outside HRV conditions to determine potential treatment areas" and to retain trees ≥ 21" dbh.

Variable density thinning mimics the clumped distribution and associated processes found in pre-1850 stands. Existing stand conditions and site productivity would drive variable stocking levels following thinning treatments. Gaps would be created where lodgepole pine stocking is higher or where dwarf mistletoe is more prevalent. FEIS at 6.

Clumps would be retained where trees exhibit desirable characteristics consistent with the Deschutes LRMP as amended by the Eastside Screens which directs the retention of trees ≥ 21" dbh. FEIS at 6. Tree retention levels shall be identified in silvicultural prescriptions to depict optimum and minimum stocking levels for all stands. Deschutes LRMP at 4-37.

The Responsible Official proposed treatments within the lodgepole pine PAG that will not reduce the amount of late and old structure (LOS) below HRV. Alternative 3 would favor ponderosa pine in thinning treatments, and retain lodgepole pine as needed to maintain stocking at or above the lower management zone. FEIS at 124 to 125.

Appellant Statement #6: Appellant states that the project fails to protect the environment by not requiring removal of thinning slash instead of forest soil and vegetation damaging pile burning. LOWD at 8.

Response: I find that the Responsible Official has adequately provided for the protection of soil and vegetation resources from effects of prescribed burning activities.

The regulation at 40 CFR 1508.20(b) directs the agency to minimize project impacts by limiting the degree or magnitude of the action and its implementation. The Deschutes NF LRMP Standard and Guidelines SL-1 and SL-3 provide for the protection of soil quality. FEIS at 357. The Pacific Northwest Region developed soil quality standards and guidelines to limit detrimental soil disturbances with management activities (FSM 2520, R-6 Supplements No. 2500-98-1). Region 6 guidance supplements

the Deschutes LRMP standards and guidelines which are designed to protect or maintain soil productivity and describes detrimental soil impacts. FEIS at 358.

Protection of soils and vegetation resources associated with prescribed burn operations included pile burning, are summarized in Resource Protective #35. "Protect Soils and Water during prescribed burn operations-Comply with all applicable LRMP standards and guidelines and Best Management Practices in burn plans completed before the initiation of prescribed burn treatments in planned activity areas. Include soil moisture guidelines to minimize risk of intense fire and adverse impacts to soil and water resources from prescribed burning." FEIS at 31 to 32.

Appellant Statement #7: Appellant states that the project fails to protect the environment by not strategically locating actions appropriate for PAG types, not analyzing cumulative impacts, and that the road and logging fragmented the mosaic of stand conditions. These can help minimize the extent of mechanized activity across the forest landscape, protecting ongoing natural cycles and processes, and limiting disturbances to wildlife and natural recreation. LOWD at 8.

Response: I find that the Responsible Official adequately provided for the protection of the environment and minimized the potential impacts by following the Deschutes NF LRMP direction, addressing key issues, accommodating wildlife habitat needs, and strategically locating fuel treatments in the design of the project.

The regulation at 40 CFR 1508.20(b) directs the agency to minimize project impacts by limiting the degree or magnitude of the action and its implementation. The regulation at 40 CFR 1502.16 requires the agency to consider the impacts of the proposed action and any alternative on the human environment.

The Responsible Official based the design of the Ogden Project's alternatives on LRMP direction (FEIS at 1 to 7; FEIS at 144 to 146), key issues (FEIS at 7 to 9), wildlife habitat needs (FEIS at 47 to 48), and also strategically locating fuels treatments (FEIS at 137 to 143) to minimize impacts while still accomplishing fuel reduction needs. Overall, I find that the FEIS displayed how the Ogden Project strategically located all activities to minimize resource impacts, while considering the potential impacts of the various activities on affected resources including wildlife and recreation.

Appellant Statement #8: Appellant states that the Ogden Environmental Impact Statement (EIS) failed to accurately and objectively disclose the percentage of trees of particular diameter classes present in the area, and whether trees above 14", 16", and 18" in diameter respectively make up a significant portion of the area's forest stands considered to be in excess of desired Stand Density Index levels, or whether these size categories are lacking in part or all of the project area. Appellant states that the Eastside Screens may allow for the removal of trees up to 21" dbh, however, they do not require such removal. Appellant states that the scientific foundation of the Screens emphasized that snags above 15" dbh are considered ecologically important as forest structure and cavity nester habitat. Appellant states that in deciding what diameter limit is appropriate to a specific project area, the agency must employ a reasoned assessment of the <u>presence, abundance, importance, and role trees of a particular size class perform</u> in the project area units before concluding what diameter limit is appropriate to meeting ecological objectives. Appellant states that agency logging actions must be based upon sound science employing ecologically sound 14" and 16" variable diameter limits (with a maximum of 18" in

dry ponderosa pine sites and lower dbh limits in mixed conifer and lodgepole pine sties), and not arbitrarily contrived 21" dbh limits. LOWD at 10.

Response: I find that the Responsible Official discloses appropriate existing stand descriptions by diameter class and by major species of ponderosa pine and lodgepole pine. The corresponding data is displayed in Forest Vegetation Simulator (FVS) runs in Appendix E, providing data on current conditions, as well as data related to harvested trees per stand type. FEIS Appendix E at 1 to 12.

The Deschutes NF LRMP, as amended by the Eastside Screens, directs the agency to "characterize the difference in percent composition of structural stages between HRV and current conditions. Identify structural conditions and biophysical environment combinations that are outside HRV conditions to determine potential treatment areas" and retain trees ≥ 21" dbh. Eastside Screens Appendix B at 4; Eastside Screens Appendix B at 10. The Forest Service guidance on the use of best available science (June 20, 2007) needs to be followed during project planning. The regulation at 40 CFR 1502.24 directs the agency to insure professional integrity, including scientific integrity of the discussions and analysis in the EIS.

The Eastside Screens interim ecosystem standard directs a proposed timber sale and its associated watershed be characterized for patterns of stand structure by biophysical environment. This characterization is to be compared to the Historic Range of Variability (HRV). The HRV should be developed for large landscapes across which forest types, environmental settings, and disturbance regimes (fire and insects/disease) are relatively uniform. It should be based on conditions in the pre-settlement era. Where LOS is found to be below HRV, the Eastside Screens interim wildlife standard provides direction for timber sale activities. This direction includes no net loss of LOS, retention of live trees greater than or equal to 21 inch dbh, moving vegetative structure towards LOS, and maintaining open, park-like stand conditions where this occurred historically. In 2003, guidance was issued that reaffirmed the Eastside Screens objective of increasing the number of large trees and LOS stands on the landscape (USDA Forest Service 2003). FEIS at 109.

In addition to retaining ≥ 21" dbh trees, the Responsible Official proposed the retention of ponderosa pine trees less than 21" dbh with old tree characteristics (from Van Pelt 2008) except where they are either: ladder fuels which pose a threat to larger diameter trees or dwarf mistletoe infected and contribute to infection potential of desired understory trees. Ponderosa pine old tree characteristics include all of the following: orange bark with plates generally more than three times wider than the darker fissures that separate them, rounded crown, and below the main crown (few if any dead branches present and knots not noticeable). FEIS at 37; ROD at 28.

The Responsible Official described the current vegetation conditions in the FEIS at 56 to 57 and Appendix E. The FEIS documents information about trees per acre and basal area expected with a harvested and a non-harvested stand. The existing conditions are narrated further within the FEIS at 77 to 78; 86; 94 to 96; and 114 to 117. The FEIS at 56 documents that the Responsible Official considered an alternative that would limit the diameter of trees thinned to a maximum of 16" dbh, as suggested by a conservation group. The FEIS documents that the number of trees removed between the 16" and 21" diameter range would be relatively small in comparison to the proportion of trees that are retained. FEIS at 56. Monitoring of similar treatments supports this conclusion. FEIS at 56. Diameter restrictions exist on thinning adjacent to Paulina Creek to maintain shade. FEIS at 56. The FEIS details other reasons why a smaller diameter limit was not incorporated, thus fully addressing appellant's concerns and suggestions. FEIS at 56.

Project Design Flaws – Protection of Fish and Wildlife Habitat and Recreation Areas

Appellant Statement #9: Appellant states that the project fails to protect the environment by allowing commercial logging or mechanized actions in RHCAs, old growth, ecologically significant areas, popular natural recreation areas, and important connective habitat and refugia for wildlife. LOWD at 8.

Response: I find that the Responsible Official adequately protected RHCAs, old growth, ecologically significant areas, popular natural recreation areas, and important connective habitat and refugia for wildlife.

The regulation at 40 CFR 1508.20(b) directs the agency to minimize project impacts by limiting the degree or magnitude of the action and its implementation.

The Inland Native Fish Strategy (INFISH) prohibits vegetation management within Riparian Habitat Conservation Areas (RHCAs) except to "acquire vegetation characteristics where needed to attain Riparian Management Objectives (RMOs)."

The Deschutes NF LRMP established an old growth management area (OGMA; Management Area 15) to provide habitat for old growth associated species, to contribute to biodiversity, to provide a representation of landscape ecology, and for human aesthetic and spiritual reasons. LRMP at 4-149. There will be no programmed timber harvest in this management area, but "vegetative manipulation including removal may occur to perpetuate or enhance old growth characteristics." LRMP at 4-150.

The LRMP was amended by the Revised Environmental Assessment for the Continuation of Interim Management Direction Establishing Riparian, Ecosystem, and Wildlife Standards for Timber Sales (Eastside Screens) in 1995. The Eastside Screens established standards for connectivity between designated OGMA and LOS stands. Generally, these areas must be connected in at least two different directions with forested corridors that are at least 400 feet wide. Timber stands in the corridors should be made up of stands where medium to large diameter trees are common, or the next best stands should be used if these types are not available. Timber harvest is allowed in connectivity corridors. However, canopy closure must not be reduced below the top third of the site potential.

With the Ogden project, timber harvest will occur within a designated OGMA. The majority of the thinning harvests within the OGMA will occur on the drier, south facing aspects that favor ponderosa pine. Thinning treatments are designed to improve the growth and development of large trees and improve the sustainability of the stands. Thinning and mowing treatments will reduce the risk of wildfire in the OGMA. While there will be a reduction in the suitability of the habitat for old growth associated species, "the scope of this effect is reduced by the concentration of activities around known recreation sites and the south-facing slopes that are not necessarily providing good habitat." FEIS at 354. Temporary roads will not be built within the OGMA. FEIS at 355.

Timber harvest, fuels treatments, and other activities will occur within connectivity corridors. No corridors will be severed or reduced in width below the 400 foot threshold. With the implementation of Protection Measure 65, canopy closure requirements will be met within all treatment areas, post-harvest. Connectivity corridor requirements of the Eastside Screens will be met. FEIS at 48, 355, 356.

The project will "reduce the potential for effects to the (riparian management) objectives from stand replacing wildfire by promoting healthier stands in the watershed and a more fire resilient landscape." FEIS at 402. The project will apply silvicultural practices in order to acquire vegetation characteristics (shade, large trees) that will help attain RMOs for water temperature and large woody debris. Management activities within the RHCA would maintain or not degrade the other habitat objectives. Protection Measures 44 to 52 address erosion prevention and control, pollutants, skidding and yarding operations, and the use of prescribed fire in RHCAs. FEIS at 43 to 46. Water quality and riparian vegetation will be protected with the implementation of these measures.

Popular natural recreation areas will be protected with the implementation of Protection Measures 12-30. FEIS at 38 to 41.

Also see the response to Appellant Statement #13 pertaining to the protection of goshawk nest stands.

Appellant Statement #10: Appellant states that the project fails to protect the environment because there are not sufficient leave area provisions ensuring wildlife habitat quality. LOWD at 8.

Response: I find the Responsible Official incorporated sufficient leave area provisions for wildlife in the project design.

See the response to Appellant Statement #9 pertaining to RHCAs, designated old growth habitat areas, and connectivity corridors. Also see the response to Appellant Statement #13 pertaining to goshawk nesting habitat and post-fledging areas.

Appellant Statement #11: Appellant states that the project fails to protect the environment by failing to include seasonal restrictions on project actions to protect avian and wildlife species. LOWD at 8.

Response: I find the Responsible Official incorporated seasonal restrictions to protect avian and wildlife species into the project design.

The regulation at 40 CFR 1508.20(b) directs the agency to minimize project impacts by limiting the degree or magnitude of the action and its implementation. The LRMP contains standards and guidelines specific to project timing restrictions to protect raptors and other wildlife at nest, den, roost, and other biologically important sites. LRMP at 4-52 through 4-60.

Protection Measures 53 to 58 are designed to prevent disturbance to known and newly discovered raptor nests from vegetation management activities. FEIS at 47. These measures include seasonal restrictions for any site disturbing operations within ¼ mile of active nests, during the reproductive period of each raptor species. Protection Measure 67 is intended to minimize project-related disturbance to landbirds during the spring and early summer nesting period, where possible. FEIS at 48.

Appellant Statement #12: Appellant states that the project fails to meet Land and Resource Management Plan (LRMP) standards & guidelines for down wood, and they are lower than the levels required by marten. The Forest Service must redesign the project to retain more down wood, more green recruitment trees, and tolerate more mortality processes to ensure that marten habitat is recruited and maintained to meet the needs of this Management Indicator Species. LOWD at 8.

Response: I find that the Responsible Official met or exceeded the standards and guidelines for down wood in the LRMP. The project will result in a small reduction of marten denning habitat on the Deschutes NF, but continued viability of the species is expected.

The regulation at 40 CFR 1508.20(b) directs the agency to minimize project impacts by limiting the degree or magnitude of the action and its implementation. The LRMP as amended by the Eastside Screens, established standards for down log retention within timber harvest units.

The FEIS prescribes levels of snags and down wood with Protection Measures 59 to 64. FEIS at 47 and 48. Implementation of Protection Measures 60, 61 and 63 will ensure that all proposed harvest units meet the snag and down log requirements of the Eastside Screens. In addition, Protection Measure 61 provides for the retention of *all* down logs in selected units, exceeding the levels of habitat required by the Eastside Screens. Protection Measures 59 and 62 provide for the retention of one slash pile or fuel concentration per acre within units that will be hand or grapple piled. Protection Measure 60 provides for the retention of *all* snags within all harvest units, to the extent that safety and equipment limitations allow. Thus, snag retention levels will exceed those required by the Eastside Screens. As these dead trees fall to the ground over time they will contribute to down log levels throughout the project area. These protection measures are intended to provide additional habitat for marten and other wildlife.

Within the ponderosa pine and mixed conifer biophysical environments, the project will not harvest stands having LOS, and all trees equal to or greater than 21 inches in diameter will not be harvested. FEIS at 124. Harvest prescriptions will move stands towards large tree structure. The accelerated diameter growth and reduced beetle risk resulting from the project will enhance the potential for large trees to become more common in the future. FEIS at 124. Large trees are an integral component of marten denning habitat. FEIS at 269.

Within the lodgepole pine biophysical environment, the project will not reduce the amount of LOS below the historic range of variability for these stand structural stages. FEIS at 124.

The project will be consistent with LRMP direction for marten, and although it contributes a 1 percent reduction of marten denning habitat on the Deschutes NF, continued viability of marten is expected on the Forest (FEIS at 285).

Appellant Statement #13: Appellant states that the project fails to protect the environment because it does not prohibit logging or road building in goshawk post fledging areas (PFAs) and important core and refugia habitat territories. LOWD at 8.

Response: I find the Responsible Official adequately protected goshawk nest stands and PFAs in the project area, in accordance with existing standards and guidelines.

The regulation at 40 CFR 1508.20(b) directs the agency to minimize project impacts by limiting the degree or magnitude of the action and its implementation.

The Eastside Screens direct the agency to map a 30 acre nest stand of the most suitable habitat around all active and historic goshawk nests. Historic nests are those that are presently inactive, but were active within the last 5 years. Timber harvest is deferred in the nest stand. Seasonal restrictions are required for activities that may disturb or harass the pair while bonding or nesting. In addition, a 400 acre PFA is established around the every known active nest. Harvest activities can occur within the PFA.

However, if LOS stands in the watershed are below the historic range of variability, all LOS stands in the PFA should be retained. If LOS stands in the watershed are within or above the historic range of variability, 60 percent of the LOS stands in the PFA should be retained. Younger stands in all PFAs should be enhanced towards LOS condition, as possible.

With the Ogden project, there will be no activities within mapped goshawk nest stands. FEIS at 237. There are no LOS stands within any goshawk PFA in the project area. FEIS at 237. Timber harvest in the PFAs is consistent with the Eastside Screens so long as the harvest prescriptions are intended to enhance younger stands towards LOS condition. The FEIS states "the objectives for treatments within the PFAs are to promote larger tree structure, focusing on the more fire resistant pine." FEIS at 237. These treatments should move younger stands towards LOS condition quicker than had no forest management occurred.

In many stands in the PFAs, beetles have moved from the more vulnerable lodgepole pines to the adjacent, larger ponderosa pines. If tree densities in these stands are not reduced through thinning "It is reasonably foreseeable that these stands will in the short term become dominated by snags in the understory and the large trees used for nesting will soon die. This decreases the suitability of the stand to sustain a goshawk territory in the long-term. Also these areas would contribute to the risk of wildfire." FEIS at 235.

Any active goshawk nest in the project area will be protected from disturbing activities within ¼ mile of the nest during the nesting period. FEIS at 47.

Appellant Statement #14: Appellant states that the project fails to protect the environment by allowing logging or road construction in uninventoried roadless areas. The project's northeast area strays into uninventoried roadless forest that is contiguous with Newberry National Volcanic Monument (NNVM) roadless forests, and the project's boundary adjoining Newberry National Volcanic Monument also intrudes into uninventoried roadless area forests. LOWD at 8.

Response: I find the Responsible Official fully included the appropriate analysis and considered the appellant identified un-inventoried roadless areas in accordance with regulation and policy.

The Forest Service Handbook (FSH) at FSH 1909.12, Chapter 70 and 71, address lands suitable for possible designation as potential wilderness areas and identifies inventory criteria. Regional direction states that Forests should analyze likely effects of the proposed actions on resource values within "any area that is not an inventoried roadless area (IRA) but does not have classified roads in it" and could be considered to contain "roadless character," Appeal Record, Freedman, 2004 at 2 to 3.

The Forest conducted an inventory of isolated polygons and other undeveloped lands within the Ogden project area. Of the 32 polygons assessed, one meets the inventory criteria for a potential wilderness area (PWA). FEIS at 439. This PWA consists primarily of the North Paulina IRA with the addition of contiguous lands along the western boundary and a peninsula of land along Paulina Creek. "The PWA polygon coincides with much of the area identified by Oregon Wild as important for maintaining unroaded characteristics. However, Oregon Wild's area included the Paulina Fire that burned in 1998 and was subsequently salvaged and planted. The portions of Oregon Wild's unroaded area that has evidence of past industrial logging, fire salvage, or lodgepole harvest are not included in the PWA polygon." FEIS at 433 and 434. The remainder of the identified undeveloped polygons do not meet the criteria for potential wilderness. They are within the lodgepole pine forest type at higher elevations,

and interspersed with treated areas. "They are not unique on the landscape and do not have any unique characteristics relative to the surrounding landscape." FEIS at 439.

The selected alternative for the Ogden project will not include any harvest units within inventoried roadless areas (IRAs) or the potential wilderness area described earlier. "Other undeveloped areas will be minimally impacted by this project (74 acres harvested). These areas do not meet the inventory criteria for potential wilderness, are not ecologically unique, and are within (LRMP) management allocations that allow the proposed activities to occur." ROD at 8 to 9.

<u>Project Design Flaws – Off-Road Vehicle Impacts and Road Densities</u>

Appellant Statement #15a: Appellant states that the project fails to protect the environment as there is not strategic retention of forest densities and structure to prevent incursions by off road vehicles (ORVs). There is a frequent recurrent problem of severe ORV abuse and environmental harms throughout the project area. Project actions would further expose area forests to increased access by ORVs. LOWD at 8. Diminishing forest structural complexity and reducing stand densities would subject the Ogden area forests and wildlife to increased levels of ORV intrusion and degradation. It has been well-demonstrated (as rampant ORV harms in the area currently attest) that the Forest Service is incapable of preventing natural resource damage and abuse of agency regulations by ORV users. LOWD at 22

Response: I find the Responsible Official included adequate provisions to protect resources in the project area from off-highway vehicle (OHV) use.

The regulation at 40 CFR 1508.20(b) directs the agency to minimize project impacts by limiting the degree or magnitude of the action and its implementation.

In accordance with 36 CFR 212, 251, 261, and 295 the Deschutes and Ochoco NF and the Crooked River National Grassland completed a travel management plan which prohibited motorized travel outside of previously existing routes (roads and trails) and areas where it is not already restricted or prohibited by law, regulation, policy, order, LRMP direction, or site-specific decisions.

The Motor Vehicle Use Map (MVUM) for the Deschutes and Ochoco National Forests and the Crooked River National Grassland governs OHV use on these public lands. The MVUM prohibits off-road travel in the Ogden project area. This rule is enforced by Forest law enforcement officers.

The Ogden project will incorporate measures which will minimize the potential for OHVs to travel overland from open roads. Protection Measures 18, 19, and 21 address the obliteration of roads and user-created trails adjacent to the Peter Skene Ogden National Scenic Trail. FEIS at 39. Protection Measure 43 addresses the effective obliteration of temporary roads built or re-constructed for the project. FEIS at 43. Protection measures 36 and 59 to 64 address the retention of coarse woody debris within harvest units. FEIS at 42, 47, and 48. Protection Measure 6 would contribute to coarse woody debris by requiring hazard trees, created by burning, to be felled and left on site. FEIS at 38. This down material, along with stumps and brush retained in treatment areas, should act to discourage or impede OHV travel off open roads into these areas.

Appellant Statement #15b: Appellant states that the project fails to protect the environment by failure to reduce existent unacceptably high road densities throughout the project area, restore excess roads to

natural contours and forest vegetation, prohibit new road construction including no so-called "temporary" roads (ecologically as road impacts remain on the landscape for decades to centuries, there is no such thing as a "temporary" road), prohibit reconstruction of roads being naturally reclaimed by forest vegetation, and prohibit reconstruction of non-navigable, little used roads. LOWD at 8.

Response: I find the Responsible Official included adequate provisions to ameliorate the effects of the existing road system, and any new roads constructed or re-constructed for the Ogden project, to the environment.

The regulation at 40 CFR 1508.20(b) directs the agency to minimize project impacts by limiting the degree or magnitude of the action and its implementation.

In accordance with 36 CFR 212, 251, 261, and 295 the Deschutes and Ochoco National Forests and the Crooked River National Grassland completed a travel management plan which prohibited motorized travel outside of previously existing routes (roads and trails) and areas where it is not already restricted or prohibited by law, regulation, policy, order, LRMP direction, or site-specific decisions.

The FEIS states, "Planning for the Lava Rock OHV Trail Project, which completely overlaps the Ogden project area, included work on a travel analysis, in order to look for opportunities to work towards the goal of the "Minimum Road System" necessary to meet the needs for recreation and natural resource management. This included looking to reduce habitat fragmentation and mitigating both the reduction of hiding cover and the low levels of thermal cover." FEIS at 419. After completing the road closures proposed with the Lava Rock OHV Project, the open road density in the area will be reduced from 4.22 miles per square mile, to 2.83 miles per square mile.

Also see the response to 15a for more information.

Adverse, Cumulative and Other Impacts

Appellant Statement #16: Appellant states that the Lava Cast Project just to the north of Ogden resulted in a number of seriously harmful environmental impacts, contrary to the EIS and Record of Decision (ROD), and that the similarly planned Ogden Project failed to responsibly, accurately and objectively disclose and assess the full extent of the significant adverse impacts of the Lava Cast Project. LOWD at 5.

Response: I find the FEIS adequately assessed the cumulative effects of past, present and future actions associated with the Lava Cast Project.

The regulation at 40 CFR 1508.7 states that a cumulative effect is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

In analyzing their resource, specialists used their professional judgment in considering direct and indirect effects on the environment that were expected or likely to result from the alternatives when combined with past, present and reasonably foreseeable future actions. Specialists also considered present effects of past actions on their resource in considering overall effects.

The Lava Cast project was included in Table 12 as a past action that may contribute to the project's cumulative effects. FEIS 63. A review of the FEIS shows that cumulative effects associated with the Lava Cast Project were sufficiently analyzed across all potentially affected resources. FEIS at 137, 159, 183, 191, 211, 239, 240, 287, 289, 291, 329, and 350.

Appellant Statement #17: Appellant states that the EIS for the Ogden Project failed to responsibly address harms and lessons from Lava Cast logging actions and to objectively assess those in light of pertinent science, and adapt more stringent and effective ecological protective provisions, authorizing the Ogden Project to allow even greater adverse logging impacts, including mechanized logging harms within the renowned and recreationally popular Paulina Creek riparian habitat conservation area (RHCA) and its beautiful old growth forest and adjoining areas. The decision therefore violates the requirements of the NEPA and President Obama's memorandum mandating the requirements of scientific integrity. LOWD at 7.

Response: I find the FEIS included adequate Resource Protective Measures to reduce or eliminate unwanted effects to RHCAs. Additionally, I find the FEIS provided adequate protection to old growth forests and utilized the best available science in determining the effects to project area resources.

The regulation at 40 CFR 1508.20 (b) defines "Mitigation" as minimizing impacts by limiting the degree or magnitude of the action and its implementation.

INFISH prohibits vegetation management within RHCAs except to "acquire vegetation characteristics where needed to attain Riparian Management Objectives (RMOs)."

The Deschutes NF LRMP established an OGMA (Management Area 15) to provide habitat for old growth associated species, to contribute to biodiversity, to provide a representation of landscape ecology, and for human aesthetic and spiritual reasons. LRMP at 4-149. There will be no programmed timber harvest in this management area, but "vegetative manipulation including removal may occur to perpetuate or enhance old growth characteristics." LRMP at 4-150.

The project will "reduce the potential for effects to the RMOs from stand replacing wildfire by promoting healthier stands in the watershed and a more fire resilient landscape." FEIS at 402. The project will apply silvicultural practices in order to acquire vegetation characteristics (shade, large trees) that will help attain RMOs for water temperature and large woody debris. Management activities within the RHCA would maintain or not degrade the other habitat objectives. Protection Measures 44 and 52 address erosion prevention and control, pollutants, skidding and yarding operations, and the use of prescribed fire in RHCAs. FEIS at 43 to 46. Water quality and riparian vegetation will be protected with the implementation of these measures.

With the Ogden project, timber harvest will occur within a designated OGMA. The majority of the thinning harvests within the OGMA will occur on the drier, south facing aspects that favor ponderosa pine. Thinning treatments should improve the growth and development of large trees and improve the sustainability of the stands. Thinning and mowing treatments will reduce the risk of wildfire in the OGMA. While there will be a reduction in the suitability of the habitat for old growth associated species, "the scope of this effect is reduced by the concentration of activities around known recreation sites and the south-facing slopes that are not necessarily providing good habitat." FEIS at 354. Temporary roads will not be built within the OGMA. FEIS at 355.

In response to comments, the FEIS addressed concerns raised by the Appellant regarding the effects of the Lava Cast project. FEIS, Appendix F at 36 to 37.

The Forest Service guidance on the use of best available science (June 20, 2007) was followed during project planning and decision making; a review of the FEIS illustrated that best available science was utilized. ROD at 4, 9, 60, 148, 182, 183, and 340. Also, the FEIS at 61 states that referenced material (FEIS at 467 to 484) is a consideration of the best available science.

Appellant Statement #18: Appellant states that the Ogden Project's logging will have significant adverse cumulative impacts in conjunction with widespread logging-thinning actions across the Bend-Fort Rock District, including the Lava Cast, East Tumbull, Sunriver, South Bend, Hwy 97 widening; Oz, Deadlog, Opine, and other past and recent projects, and including existent user-created and planned extensive ORV trail systems and recreational use throughout the area. The EIS for this project failed to disclose and assess actual impacts, and failed to include provisions to effectively prevent the harms of these similarly premised projects. LOWD at 8 to 9.

Response: I find the FEIS adequately assessed the cumulative effects of past, present and reasonably foreseeable future actions.

The regulation at 40 CFR 1508.7 states that a cumulative effect is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

In analyzing their resource, specialists used their professional judgment in considering direct and indirect effects on the environment that were expected or likely to result from the alternatives when combined with past, present and reasonably foreseeable future actions. Specialists also considered present effects of past actions on their resource in considering overall effects.

Past actions that may contribute to cumulative effects are included in Table 12. FEIS at 63. Ongoing or reasonably foreseeable future actions that may contribute to cumulative effects are included in Table 13. FEIS at 64 to 67. It should be noted that Appellant reference several projects outside the cumulative effects boundaries of the Ogden project. For example, the Deadlog project is nearly 20 miles east of the Ogden project area.

A review of the FEIS shows that cumulative effects were analyzed across all potentially affected resources. FEIS at 80, 90, 123, 133, 136, 158, 166, 176, 180, 183 to 185, 187, 189 to 191, 196, 198, 201, 205, 211, 212, 218 to 221, 239, 243, 247, 250, 252, 254, 258, 259, 267, 284, 289, 290, 291 to 293, 299, 300, 305, 320, 329, 332, 338, 350, 356, 366, 376, 380, 386, 399, 401, 403, 405, 409, 414, 416, 421, 422, 426, 429, 439, 440, 442, 443, 447, and 452.

Appellant Statement #19: Appellant states that the Ogden fire history was not fully nor accurately disclosed. LOWD at 5.

Response: I find the FEIS adequately assessed the cumulative effects of past actions, including the Ogden project area fire history, because the existing condition acts as a proxy for impacts of past actions.

The regulation at 36 CFR 220.4(f) states that the CEQ regulations do not require the consideration of the individual effects of all past actions to determine the present effects of past actions. As described in the FEIS, "The environmental consequences disclosures in this FEIS include discussions of cumulative effects. Where there is overlapping zone of influence, or an additive effect, this information is disclosed. In order to understand the contribution of past actions to cumulative effects of the proposed action and alternatives, this analysis relies on current environmental conditions as a proxy for impacts of past actions. This is because existing conditions reflect the aggregate impact of all prior human actions and natural events that have affected the environment and might contribute to cumulative effects." FEIS at 61.

Though a project area fire history is presented at FEIS 63 and 149, the cumulative effects analysis in the FEIS was not required to address all of the past actions associated with the Ogden project area fire history. The reason for this is these past actions are considered part of the existing condition and, therefore, analyzed in the no action alternative.

Appellant Statement #20: Appellant states that insufficient information is given on adjoining public and private lands management actions, OHV user impacts, geothermal lease holdings and past and potential future development activities, and additional past, present, and reasonably foreseeable cumulative impacts concerns. LOWD at 6.

Response: I find the Responsible Official sufficiently analyzed past, present and reasonably foreseeable cumulative impacts pertaining to the project area's adjacent public lands. The Responsible Official sufficiently analyzed direct, indirect and cumulative impacts to the private lands adjacent to the project area.

The regulation at 40 CFR 1508.7 states that a cumulative effect is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. The regulation at 40 CFR 1502.16 requires the agency to consider the impacts of the proposed action and any alternative on the human environment.

In regards to adjacent public lands, past actions on Bureau of Land Management Lands (BLM) that may contribute to cumulative effects are included in Table 12 at FEIS 63; ongoing or reasonably foreseeable future actions on adjoining BLM lands that may contribute to cumulative effects are included in Table 13 at FEIS 64-67. The actions include a number of geothermal projects. A review of the FEIS shows that cumulative effects of BLM geothermal projects that overlap in time and space with the Ogden project were analyzed across all potentially affected resources. FEIS at 80, 90, 123, 166, 176, 191, 196, 240, 243, 267, 299, 329, 338, 339, 350, 356, 388, 409, 429, 439, and 447.

A review of the FEIS and Ogden Vegetation Management project record demonstrates that the project will have minimal direct, indirect and cumulative effects on the adjacent private lands that lie west and downstream of the project area. The Ogden project area lies primarily within the Lower Little Deschutes 10th field watershed and partially within the Long Prairie 10th field watershed. FEIS at 1. Paulina Creek, the only stream in the Lower Little Deschutes watershed, originates at the outlet of Paulina Lake and flows westerly through the project area for 8 miles. The stream enters private land beyond the forest and project boundaries where water is utilized for irrigation purposes. FEIS at 384. As summary of key findings in the Aquatics-Hydrology section of the FEIS states "vegetation and fuels treatments proposed

under Alternatives 2 and 3 would not measurably affect water quantity. Calculated ECA values for the two action alternatives were minimal. 3.2% and 2.8% of the watershed for Alternatives 2 and 3 respectively, and not expected to change the volume, timing, or duration of peak flows" and "vegetation and fuels treatments proposed under Alternatives 2 and 3 would not measurably affect water quality. The Oregon Department of Environmental Quality 303(d) water temperature parameter would not be further degraded from the action alternatives." FEIS at 383. Therefore, in summary, the direct, indirect and cumulative effects to water quality on adjacent private land will be minimal.

Highway 97 lies 2.5 miles west of the project area and according to the Oregon Department of Fish and Game, excluding legal harvest, mortality from highway traffic on highway 97 is the 3rd leading cause of mule deer mortality in the East Slope Cascades Mule Deer Project Area. Wildlife Specialist Report at 51. Though the project will slightly reduce hiding cover for mule deer from 58% to 52%, the amount of cover remaining far exceeds the Deschutes LRMP standard of 30%. Wildlife Specialist Report at 58. Therefore, the cumulative effects of the project on deer mortality along Highway 97 will be minimal.

Appellant Statement #21: Appellant states that the EIS fails to meet the requirements of the NEPA concerning the project's direct and indirect cumulative impacts in conjunction with the multitude of adjacent area projects renders the EIS and ROD arbitrary and capricious, and as such the decision must be withdrawn and a new EIS must be conducted which meets the clear requirements of the NEPA. LOWD at 9.

Response: I find the FEIS adequately assessed the cumulative effects of past, present and reasonably foreseeable future actions. See responses to Appellant Statement #18 for a discussion of why the FEIS sufficiently meets the requirements of NEPA with regard to cumulative impacts.

Best Science Issues

Appellant Statement #22: Appellant states that the Ogden Project mirrors the failed management assumptions of Lava Cast, failing to incorporate scientifically founded effective management provisions ensuring the protection of affected wildlife species and their habitat, forest soil and vegetative communities, PAG appropriate forest structure, and the overall scientific integrity and ecological effectiveness of the project. LOWD at 5.

Response: I find that the Responsible Official insured the use of best available science by incorporating scientifically founded management provisions, thus ensuring the protection of affected wildlife species and their habitat (FEIS at 181 to 356), forest soil (FEIS at 357 to 380), vegetative communities and plant association groups (FEIS at 414 to 418) and forest structure (FEIS at 68 to 136).

The Forest Service guidance on the use of best available science (June 20, 2007) was followed during project planning. The regulation at 40 CFR 1502.24 directs the agency to insure professional integrity, including scientific integrity of the discussions and analysis in the EIS.

Best available science varies across scientific disciplines and over time and includes the identification of methods used, reference to scientific sources relied on, and discussion of the opposing views and disclosure of incomplete information. Best available science and current understanding was used by the interdisciplinary team specialists. FEIS at 60 and 61. Interdisciplinary team specialists used a combination of professional knowledge as well as a variety of scientific resources predict the effects of each alternative. A complete list of literature cited can be found at FEIS 467 to 484.

Appellant Statement #23: Appellant states that NEPA mandates new scientific research studies and recommendations be incorporated into proposed project actions. The Ogden EIS evidences no foundational disclosures or objective acknowledgement of considerable scientific research that calls into serious question the efficacy and ecological need for the project's logging actions, nor any credible evidence of the incorporation of significant new research addressing the importance of carbon sequestration in forest ecosystems in helping to counter exponentially growing climate change. Appellant states that among the new research reports that need to be addressed in a new EIS for the Ogden Project are issues of: carbon sequestration, climate change, and the critically important role forests play in helping counter exponentially increasing climate change, emphasizing in particular the essential roles performed by forest soils, soil communities, and trees above 10" to 14" in diameter. LOWD at 9.

Response: I find that the Responsible Official met the mandates for use of best available science as outlined by the National Environmental Policy Act (NEPA) of 1969.

The Forest Service guidance on the use of best available science (June 20, 2007) was followed during project planning. The regulation at 40 CFR 1502.24 directs the agency to insure professional integrity, including scientific integrity of the discussions and analysis in the EIS. In addition to the best available science, 40 CFR 1502.22 requires the disclosure of incomplete or unavailable information.

As stated in FEIS at 457 to 459, the Responsible Official disclosed the lack of a federal policy or guidance for managing carbon and acknowledged the tools for estimating carbon sequestration are not fully developed. The FEIS used best available science for determining the effects of the selected alternative on carbon sequestration and climate change. Current direction for addressing climate change issues in project planning was cited and is documented such as in the FEIS at 482.

Appellant Statement #24: Appellant states that the project's logging to remove mature and old trees providing essential forest structure up to 21" dbh including overstory trees is in contravention to the recommendations of scientific research concerning climate change and carbon sequestration; wildlife habitat; mixed conifer, lodgepole pine, and mixed fire severity PAGs; forest soil communities; LOS forests; natural forest cycles including insects, disease, mistletoe, and fire; and ecological integrity and resilience. LOWD at 9 to 10. The following are effects of this issue:

1. The project's logging to remove trees between 12" up to 21" dbh are in contravention to the recommendations of scientific research regarding effectively achieving fire risk reduction objectives, with research evidencing that such excessive logging-thinning actually increases fire risk, and reduces the resilience of forests to natural disturbance. LOWD at 10.

2. The project's logging to remove trees between 12" up to 21" dbh are in contravention to the recommendations of scientific research regarding providing for the wildlife habitat needs of the area's many species of the concern and management indicator species. Many cavity excavator species, such as pileated, black-backed, white-headed and other woodpeckers use and/or prefer the area's naturally varied mixed conifer, lodgepole pine, ponderosa pine and white fir forests. For example, studies of white-headed woodpeckers found that they utilized snags from 9" to 39" dbh, with a mean average diameter of 18" when sufficient snags of this size were available (Matthews, 1990) (Milne, '89, in a similar study found the range to be 8.3" to 74.8"); when large trees and snags are largely absent, the mean average range decreases

significantly towards the lower end of the use range. Similarly such logging adversely impacts species such as Goshawk, disclosed as being in the project area. LOWD at 10.

3. Despite prior logging removal of most of the original large old trees in the project area, and the consequent ecological importance of the area's maturing trees above 14" to 16" in diameter, the Ogden Project would log trees up to 21" dbh, further setting back the ongoing natural ecological recovery of the area's forest structure and wildlife habitat. LOWD at 10.

Response: I find that the Responsible Official used best available science to ensure that the maintenance or development of essential forest structure was incorporated into the project design.

The Forest Service guidance on the use of best available science (June 20, 2007) was followed during project planning. The regulation at 40 CFR 1502.24 directs the agency to insure the professional integrity, including scientific integrity of the discussions and analysis in the EIS. In addition to the best available, 40 CFR 1502.22 requires the disclosure of incomplete or unavailable information.

The regulation at 40 CFR 1508.20(b) directs the agency to minimize project impacts by limiting the degree or magnitude of the action and its implementation.

The FEIS references pertinent scientific literature that the specialists relied upon in their analysis. A complete list of literature cited can be found at FEIS 467 to 484. In response to the specific appellant points:

1. The appellant does not identify the specific scientific citation backing this claim. The list of literature citations in the appeal includes Donato, et al (2006). Findings in this paper were that *post-fire* logging can hinder the establishment of regeneration and actually increase fire risk over the short term. The Ogden project is a green timber sale, not a post-fire sale.

   The Fire and Fuels Specialist report included in the FEIS states that "thinning from below, leaving dominant and co-dominant trees with thick bark and high crowns significantly changes the potential for fire to move from surface up into the tree crowns (Fitzgerald 2002). Thinning from below most effectively alters fire behavior by reducing crown bulk density, increasing crown base height, and changing species composition to lighter crowned and fire adapted species (Graham et al. 1999)". FEIS at 142. The fire and fuels analysis can be found in the FEIS at 137 to 177.

2. In the Ogden project area, there is a need to reduce forest vegetation density and forest fuels in order to increase stand resilience to insects, disease, and stand-replacing fires, to improve the growth and health of the residual trees, and increase the proportion of LOS ponderosa pine. FEIS at 5.

   The project will not harvest stands having LOS, and all trees equal to or greater than 21 inches in diameter will not be harvested. FEIS at 124. It is important to note that although trees between 12 and 21 inches in diameter will be reduced in thinning units, the smaller size classes will still be represented in the thinned stand. Thinning from below will move stands towards a higher average tree diameter and large tree structure. FEIS at 124. Smaller diameter, smaller crowned, and less vigorous appearing trees will be targeted for removal. Full-crowned, healthy appearing trees will be retained in all age classes; focusing on the larger, fire-resistant ponderosa pines. The accelerated diameter growth and reduced beetle risk resulting from thinning will enhance

the potential for large trees to become more common in the future. FEIS at 124. Large trees are an integral habitat component for old growth associated wildlife. FEIS at 269.

Large snag habitat is preferred by many cavity excavators including pileated woodpeckers, Williamson's sapsuckers, white-headed woodpeckers, and others (FEIS at 338, 339). Protection Measure 60 provides for the retention of all existing snags within harvest units to the extent that safety and equipment limitations allow. FEIS at 47.

Also see the responses to Appellant Statements #12 and #13.

3. The selected alternative is intended to move the project area towards a more resilient landscape and reduce the risk of uncharacteristically intense wildfires occurring in the area. "The project area and larger landscape are below the historic range of variability for LOS ponderosa pine, while there is an overabundance of ponderosa pine in the "multi-stratum without large trees" structural stages. Past thinning has put some of these stands on the trajectory towards becoming LOS in many places. The purpose of this project is to maintain that trajectory as well as start it for stands that have not been thinned in the past and are therefore not on that trajectory." FEIS at 5.

   Rather than setting back the ecological recovery of the area as asserted by the appellant, the project will move the landscape towards the historic range of variability for stand structural stages, tree species composition, and fire regime condition class. There will be reductions in canopy closure, hiding cover and other habitat parameters within harvest units that may negatively affect certain wildlife species. However, these effects would be short-term and would not affect the viability of wildlife species across the Forest. FEIS at 189, 196, 199, 201, 212, 219, 229, 240, 244, 247, 250, 252, 254, 258, 285, 296, 300, 305, 321, 330, 332, and 338.

Appellant Statement #25: Appellant states that the plans to pile and burn slash are in contravention to the scientific research conclusions regarding the severe soil community damage such burning causes, which can require decades to a century to recover, and which impairs the resilience and biodiversity of the forest ecosystem. LOWD at 10.

Response: I find that the Responsible Official based his decision on relevant scientific information regarding possible soil community damage caused by burning.

The Forest Service guidance on the use of best available science (June 20, 2007) was followed during project planning as shown in the FEIS at 358.

The regulation at 40 CFR 1508.20 (b) defines "Mitigation" as minimizing impacts by limiting the degree or magnitude of the action and its implementation.

The effects of slash pile burning were extensively covered in the FEIS. The FEIS at 358 states that the Pacific Northwest Region's developed soil quality standards and guidelines to limit detrimental soil disturbances associated with management activities (FSM 2520, R-6 Supplement No. 2500-98-1). Region 6 guidance supplements the Forest LRMP standards and guidelines designed to protect or maintain soil productivity and describe detrimental soil impacts. Severe burn damaged soils are considered to be detrimentally disturbed when the mineral soil surface has been significantly changed in

color, oxidized to a reddish color, and the next one-half inch blackened from organic matter charring by heat conducted through the top layer. The Regional supplement to the FSM (FSM 2520, R-6 Supplement No. 2500-98-1) provides policy for planning and implementing management practices which maintain or improve soil quality. This Regional guidance is consistent with Deschutes LRMP interpretations for standards and guidelines SL-3 and SL-4 that limit the extent of detrimental soil conditions within activity areas. The FEIS states that the cumulative effects on the soil resource would meet the LRMP and Region 6 standards for the soil resource.

The FEIS also covers the mitigation measures to protect the soils during prescribed burn operations. FEIS at 41. This mitigation involved compliance with all applicable Deschutes NF LRMP standards and guidelines and Best Management Practices (BMP) in burn plans.

Appellant Statement #26: Appellant states that plans to utilize soil damaging ground based logging methods fail to incorporate or address the conclusions of scientific research regarding the long-term harms of such logging methods, and fail to incorporate recommendations for strategically limited light on the land machinery and impacts to protect soil communities, forest hydrological functioning, carbon sequestration, and long term forest resilience. LOWD at 11.

Response: I find that the Responsible Official based his decision on relevant scientific information regarding possible soil damage while utilizing ground based logging methods.

The Forest Service guidance on the use of best available science (June 20, 2007) was followed during project planning as is shown in the FEIS at 37. All alternatives would meet direction in relevant laws and policies, and the standards and guidelines in the Deschutes NF LRMP as amended by the Eastside Screens, except where noted in the Forest Plan Amendments. FEIS at 37.

The regulation at 40 CFR 1508.20 (b) defines “Mitigation” as minimizing impacts by limiting the degree or magnitude of the action and its implementation.

Resource Protection Measures have been reviewed and disclosed (FEIS at 37 to 49). The sources of these measures include but are not limited to Forest Plan goals, objectives, or standards and guidelines (Project Design Criteria from Programmatic BA, Best Management Practices, conservation strategies, and Invasive Plant Prevention Practices).

Specifically relating to soil damage in relation to ground based logging, Resource Protection Measure 38 (FEIS at 42) discussed the use of old landing and skidding networks (maintaining spacing of skid trail routes; restricting grapple skidders and harvesters to roads, landings, and skid trails; avoiding equipment operations in units with greater than 20% slopes; and operate equipment over a sufficient amount of frozen ground). This resource protection measure is in compliance with the LRMP, Timber Management BMPs, and best available science.

Appellant Statement #27: Appellant states that the FEIS failed to objectively respond directly to the scientific research recommendations provided during the NEPA process, and failed to incorporate their conclusions in a scientifically sound revised purpose and need, developing a much more ecologically appropriate project for the Ogden area. The FEIS failed to disclose and address the full extent of the existent scientific controversy concerning the planned logging, and failed to provide contemporary scientific foundation for all of its developed action alternatives and for its foundational purpose and

need provisions. These failures violate the requirements of the NEPA and render the EIS and ROD arbitrary and capricious. LOWD at 13.

Response: I find that the Responsible Official based his decision on relevant scientific information as stated in the ROD at 4, "the conclusion was based on a review of the project record, including a review of relevant scientific information and a consideration of responsible opposing views."

The Forest Service guidance on the use of best available science (June 20, 2007) was followed during project planning and decision making. As required in the FSH 1909.15 Chapter 20, the agency reviewed, analyzed, and responded to substantive comments on the draft EIS, including scientific references submitted during the public comment period.

Appendix F of the FEIS addressed the responses received during the public comment period which were substantive in nature. FEIS Appendix F also lists the additional scientific and other references offered through public comment. FEIS Appendix F at 43 to 45. However, the provided reference materials did not provide a basis for revising the purpose and need for action described in the FEIS at 5.

Throughout the FEIS references to scientific literature are used to support the project and selected alternative (FEIS at 71 to 73, 114 to 117, 130, 134, and 138 to 142). A full list of Literature Cited is found in FEIS at 467 to 484.

Appellant Statement #28: Appellant states that the organization provided the Deschutes National Forest decision makers and planning staff with the following scientific research reports, studies, recommendations, and articles related to the project's ecological objectives and the conservation concerns noted above. The agency failed to objectively disclose and address these and other pertinent scientific research in the NEPA analysis for this project, and failed to incorporate scientific recommendations and guidance in the project's developed action alternatives as required by NEPA, Presidential Obama's scientific directive, and environmental policy law. LOWD at 13 and 16 (list of research used at 16 to 22).

Response: I find that the Responsible Official based his decision on relevant scientific information as stated in the ROD at 4, "the conclusion was based on a review of the project record, including a review of relevant scientific information and a consideration of responsible opposing views."

The Forest Service guidance on the use of best available science (June 20, 2007) was followed during project planning and decision making. As required in the FSH 1909.15 Chapter 20, the agency reviewed, analyzed, and responded to substantive comments on the draft EIS, including scientific references submitted during the public comment period.

FEIS Appendix F at 43 to 45 lists the additional scientific and other reference sources offered through public comment and provides the agency's comments and shows consideration given. The table listed in Appendix F of the FEIS at 43 to 45 lists each source provided through public comment as well as the Forest Service's interpretation of the science presented in the source. Appellant did not submit the same list of references that is listed in the appeal during the public comment period. Of those references listed in the appeal, the agency did use 2 of the sources in the FEIS as cited in the Literature Cited section. FEIS at 468 and 471.

Purpose and Need in Violation of NEPA

Appellant Statement #29: Appellant states that the purpose and need of the Ogden Project is similarly far too narrow, so that the proposed action is the only possible course of action, as in EPIC v. USFS, D.C. No. CV-04-01705- GEB (9th Cir. 2006). In the EPIC case, the Ninth Circuit found that the purpose and need of a timber sale project was so narrow that it was impermissible. The Project's pre-planned extensive logging was the only possible course of action to fulfill the purpose and need, so there was no real analysis of a range of other scientifically-founded reasonable alternatives. LOWD at 11.

Response: I find that the Responsible Official developed a purpose and need for action based on the definition of purpose and need outlined in the FSH 1909.15 Chapter 10.

The FSH 1909.15 Chapter 10 defines the need for action as the relationship between the desired condition and the existing condition. According to the FSH, a well-defined "need" or "purpose and need" statement narrows the range of alternatives that may need to be considered. A narrow purpose and need statement better allows for a more focused analysis.

An agency must not define the purpose and need of a project so narrowly that the proposed action is the only possible course of action. EPIC v. USFS, D.C. No. CV-04-01705-GEB (9th Cir. 2006). Appellant claims that the narrow purpose and need allowed for only the proposed action to be selected. However, Alternative 3 which addresses many of the key issues identified in public comments was selected rather than the initial proposed action. This demonstrates that the purpose and need was not so narrow as to preclude other alternatives.

Appellant Statement #30: Appellant states that the purpose and need is based on a mix of controversial and scientifically misconstrued ecological objectives that are unreasonably linked with an economically unfounded "need" to support privately owned timber industry profiteering. The Forest Service has not substantiated any societal "need" to provide for the financial welfare of foreign owned corporations with the scientifically unwarranted sacrifice of the nation's public lands forests. LOWD at 12.

Response: I find that the Responsible Official developed a purpose and need that is supported with ecological objectives based on the best available science and an economic analysis. ROD at 4. FEIS at 448 to 451.

The Forest Service guidance on the use of the best available science (June 20, 2007) was followed during project planning and development. FSH 1909.17, 2409.18, and FSM 2400-Timber Management, Chapter 2430 direct the evaluation of economic feasibility for timber sales and related cost and cost efficiency for proposed projects and all related costs. FEIS at 449.

The Responsible Official properly documented that the best available science was considered in project planning and development. ROD at 4. The Responsible Official also included an economic analysis consistent with policy and direction. FEIS at 448 to 451.

Appellant Statement #31: Appellant states that the EIS's stated purpose and need renders only one possible action that could fulfill the need to "contribute to the local and regional economies by providing timber and other wood fiber products and associated jobs", which is commercial logging. Appellant states that there are many methods of contributing "to the local and regional economies"

that provide "associate jobs" including employment conducting restoration actions that do not produce "timber and other wood fiber products." Appellant states that "clearly such a narrowly contrived ecologically unfounded purpose and need has no feasible place setting the parameters of public lands project analysis and development." Appellant states that because of the same types of legally NEPA noncompliant narrow purpose and needs, the Forest Service in similar other projects has "repeatedly only developed virtually identical action alternatives that are based primarily on commercial logging." LOWD at 12 to 13.

Response: I find that the Responsible Official developed a purpose and need for action based on the definition of purpose and need outlined in the FSH 1909.15 Chapter 10. In addition, the purpose and need is consistent with the Deschutes NF LRMP direction to support the economic and social needs of the public.

See response to Appellant Statement #29 for a discussion of why the FEIS sufficiently meets the requirements of NEPA in regards to the purpose and need for action.

The purpose and need to contribute to local and regional economies by providing timber and other wood fiber products is consistent with LRMP direction to support the economic and social needs of the local and regional economies. FEIS at 5; LRMP at 2-2 through 2-9.

<u>Range of Alternatives</u>

Appellant Statement #32: Appellant states that the organization has expressed the need to develop a reasonable range of scientifically founded alternatives. Appellant states that "[b]ased upon a review of the relevant science, much of which has been repeatedly included in our previous NEPA exhibits, and recognizing the Forest Service's perpetual timber target achievement-based funding realities (which should be publicly disclosed in the NEPA analysis as these unduly influence agency planning and decisions), and offered some potential common ground alternatives." Appellant states that by utilizing the proposed legally non-compliant purpose and need of wood products and wood fiber products for industry, the agency would be in clear violation of the legal requirements of the NEPA, and judicial case law as noted herein (Methow Valley, Muckelshoot and Citizens against Toxic Sprays). LOWD at 14 to 15.

Response: I find that the Responsible Official and interdisciplinary team specialists developed and considered a range of scientifically founded alternatives. Some of these alternatives were not fully analyzed because they failed to meet the Purpose and Need.

The Forest Service is required by NEPA to explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives which were not developed in detail according to 40 CFR 1502.14. The Deschutes NF LRMP as amended by the Eastside Screens provides for actively addressing restoration toward the historic range of variability, increasing the long-term health and integrity of project area, and supporting economic and social needs of the public (FEIS at 5).

The list of alternatives considered was developed through the public comment and scoping process. These include commercial logging, utilize fire and small-tree thinning only (FEIS at 55); minimum treatment – conduct fuels reduction only where the highest priority (FEIS at 55 to 56) ; no temporary road construction or re-construction of existing little-used road (FEIS at 56); limit diameter of trees to be

removed with thinning (FEIS at 56); and girdling of mistletoe-infected overstory rather than removing by harvest (FEIS at 56 to 57). Amendments to the Eastside Screens (FEIS at 57) were considered based on issues raised during scoping and public comment period. Some of the alternatives suggested during public comment duplicated the alternatives considered in detail and others were determined to be unable to meet the project's Purpose and Need. This summary of alternatives highlights that consideration was given to non-timber alternatives.

LRMP Issues

Appellant Statement #33: Appellant states that the Deschutes Forest Plan and its management direction for the area is seriously outdated. Appellant states that the LRMP fails to incorporate significant new scientific research; and fails to address significantly changed conditions as a result of extensive logging thinning, fires, and ORV use throughout the greater Deschutes National Forest area. LOWD at 9.

Response: I find that the merit of management direction in the Deschutes LRMP is outside of the scope of this EIS.

I find that the Responsible Official properly documented the use of best available science during project planning and development which is directed in the Deschutes NF LRMP and all amendments. ROD at 4 and 12.

The Responsible Official proposed activities which are consistent with direction in the Deschutes NF LRMP and all amendments. ROD at 12. The documentation of how the best available science was used in the analysis is consistent with Forest Service guidance on the use of best available science (June 20, 2007).

No Support for Economics of Logging Compared to Other Forest Values

Appellant Statement #34: Appellant states that the EIS needs to substantiate the need to provide wood products and fiber with supportive economic and societal analysis. Appellant states that because of the current prolonged economic downturn and decline in the housing market, there is not an abundance of foreclosures, forced sales, evictions, and relocations that have resulted in an overabundance of unoccupied houses and unused buildings across the nation. Appellant states that this trend is expected to continue. Appellant states that because of this downturn, existing similar logging-thinning projects (such as the Lava Cast project) have been delayed, had contracts extended, and at least one has experienced its purchaser becoming financially unable to complete the project in the Ochoco NF.

Response: I find that the Responsible Official fulfilled the requirements of NEPA by completing the economic analysis in the FEIS, thus substantiating the project's Purpose and Need to contribute to the local and regional economies by providing timber, other wood fiber products, and associated jobs now and in the future. FEIS at 448 to 454.

The FSH 1909.15 Chapter 15 requires that the estimated effects (including ecological, aesthetic, historic, cultural, economic, social, and health) of each alternative be considered in detail, analyzed, and documented. When social or economic impacts are important to a reasoned decision the Forest Service is advised to also follow the direction of the FSM 1970 and FSH 1909.17.

The required economic analysis was completed for the Ogden project. FEIS at 448 to 454. Specific to the Ogden project, the economic analysis incorporated three aspects of economic and social impacts: financial feasibility of potential timber sale, cost efficiency of a timber sale and all other project activities, and impacts to the local employment. Timber sales, fuel treatments, and associated resource work can generate employment and stimulate the local economy. The selected alternative is estimated to create or maintain 170 timber industry jobs using LRMP method and 251 timber industry jobs using the alternate method as described in FEIS at 453, therefore stimulating the local economy. Timber industry jobs in Deschutes County represent the 7th highest average paying jobs in the county (FEIS at 448). This number is higher in Crook and Jefferson Counties (FEIS at 448).

Appellant Statement #35: Appellant states that societal economic needs and values are many and varied and that the timber industry economics are only a small facet of central Oregon's economy. Appellant further states that recreation and tourism to the area's public natural forest lands play much more significant roles in the region's economy. Appellant concludes by stating that protecting and restoring natural forest ecosystems and recovering abundant biodiversity as a consequence become of much higher economic concern than facilitating federally subsidized, widespread, degradation of forest ecosystems through scientifically insupportable commercial logging as proposed. LOWD at 12.

Response: See response to Appellant Statement #34 for a detailed discussion on how the Responsible Official responded to the issue of economics in the Ogden FEIS.