

**OBJECTOR'S NOTICE OF OBJECTION, STATEMENT OF ISSUES AND LAWS,
AND REQUESTED REMEDIES**

NOTICE OF OBJECTION

June 6th, 2019

Regional Forester,
Objection Reviewing Officer
Pacific Northwest Region
USDA Forest Service
Attn: 1570 Appeals and Objections
P.O. Box 3623
Portland, OR 97208-3623
Email: objections-pnw-regional-office@fs.fed.us

RE: League of Wilderness Defenders/Blue Mountains Biodiversity Project's objection to the Deschutes National Forest Kew Vegetation Management Project and Forest Plan Amendments Draft Decision Notice and Finding of No Significant Impact and Final Environmental Assessment

Dear Objection Reviewing Officer,

League of Wilderness Defenders/Blue Mountains Biodiversity Project (LOWD/BMBP) hereby formally submits the following objections to the Deschutes National Forest Kew Vegetation Management Project (aka "Kew Project") and Forest Plan Amendments Environmental Assessment Draft Decision Notice and Finding of No Significant Impact. BMBP has secured the right to submit objections and thereby participate in the pre-decisional administrative review process for this project. LOWD/BMBP has submitted timely written scoping comments regarding this project and extensive comments on the Draft Environmental Assessment, including field survey sheets and photographs from our surveying the affected area for weeks. Please see survey sheets and photos also included with the hard copy of this objection submitted via certified return receipt mail).

Decision Document

Kew Vegetation Management Project and Forest Plan Amendments Environmental Assessment and Draft Decision Notice and Finding of No Significant Impact

Date Decision published

April 26th, 2019

Responsible Official

John Allen, Forest Supervisor, Deschutes National Forest

Location

From the EA (pg. 7): The Kew project area is approximately 10,215 acres and is located about five miles southwest of Bend, Oregon. The northern boundary is provided by the Cascade Lakes Scenic Byway. The eastern boundary follows the range of the northern spotted owl.

Description of the Project

The Deschutes National Forest (DNF) is proposing activities within the 10,215-acre Kew project area, and includes overstory and understory logging, and fuels “treatments” across 6,818 acres. The Kew timber sale involves 5,703 acres of commercial logging, and is expected to generate 15.3 MMBF (Kew Vegetation Management draft Decision Notice page 9).

The selected action (Alt 2) includes (DN. 10-11):**Overstory logging**

- Commercial Thinning (favoring ponderosa pine) 2,395
- Selection Cut / Uneven-aged management (Logging of mostly lodgepole pine and white fir and thinning of ponderosa pine; about 15% in openings to be planted to ponderosa pine) 2,365
- Final Removal (Even-aged “regeneration” in a previously established seed tree or shelterwood unit, understory may not yet be fully developed) 502
- Shelterwood Harvest (HSH) (Logging white fir and lodgepole pine) 71
- Overstory Removal (HOR) (Final removal of overstory lodgepole pine) 80
- Clearcut / Clearcut with Reserve Trees (Clearcutting of lodgepole pine) 202
- Improvement Cut 17
- **Total commercial timber harvest 5,703 acres**

Understory logging

- Pre-commercial Thinning 2,434
- Whip Falling 287
- Ladder Fuel Reduction 2,533
- Mechanical Shrub Treatment 5,255
- Prescribed Fire Underburn 4,614

The proposed action (Alt. 2) also includes (in acres):

- Mastication / Mowing 2,044
- Reforestation (Tree Planting) 385
- Herbicide Spot Application 121

Roads:

- Temporary Roads: 19 miles
- Roads to be Closed: 7.2 miles
- Road Decommissioning: 8 miles
- User created roads and trails rehab: 25 miles

The DNF plans four Forest Plan amendments as part of the Kew project. Two of these project-specific Amendments involve Scenic View, and two involve hiding and thermal cover in the Key Elk areas (please see the National Forest Management Act for more detail).

The stated purpose and need of the Kew project is as follows (Final EA pg. 11-12):

- “Increase forest resilience to insect mortality through increased vigor.
- Increase forest resilience to fire through fuels reduction, promotion of fire-resistant tree species and larger diameter trees, and restoration of fire processes to the forest.
- Increase the amount of stand structure with potential to grow into large tree structure.
- Maintain or increase the amount of ponderosa pine on the landscape.

- Restore forest density and species composition on a stand and landscape scale.
- Restore unique habitats and other resources such as fens and springs.
- Increase wildlife habitat effectiveness and maintain an outdoor recreation experience consistent with the Recreation Opportunity Spectrum through management of the transportation system and by addressing user-created roads and trails.”

Appellant’s Interests

LOWD/BMBP has a specific interest in this decision, which has been expressed through participation throughout the NEPA process.

Staff, volunteers, and supporters of LOWD/BMBP live in various communities surrounding the Deschutes National Forest and use and enjoy the Forest extensively for recreation, drinking water, hunting, fishing, bird watching, general aesthetic enjoyment, family gatherings, viewing flora and fauna, gathering forest products, gathering and using edible and medicinal wild plants, and other purposes. The value of the activities engaged in by LOWD/BMBP volunteers, supporters, and staff would be damaged by the implementation of this project. LOWD/BMBP is a non-profit organization that works to protect Eastern Oregon National Forests.

Request for meeting

BMBP/LOWD requests a meeting with the Forest Service to discuss matters in this objection and seek resolution of concerns through negotiation before the Deschutes NF makes a final decision on the Kew Project.

Specific issues addressed in our objection:

NEPA (National Environmental Policy Act) violations, including: the purpose and need is overly narrowly construed. The planned project actions are in contravention to the project’s stated purpose and need, and if implemented would fail to meet the objectives and goals of the purpose and need, further exacerbating the harms to forest ecology and numerous wildlife and aquatic species. The EA fails NEPA’s requirements on a number of significant issues, including: failure to provide an adequate range of scientifically sound reasonable alternatives; failure to use an Environmental Impact Statement instead of an Environmental Assessment; failure to adequately analyze direct, indirect, and cumulative impacts of the project and the proposed Forest Plan amendments; inaccurate use of the science; and failure to use the full spectrum of best available science. Additional, but no less significant, issues addressed in our objection include violations of the National Forest Management Act (NFMA) and the Deschutes Forest Plan, such as: failure to provide for population viability for Management Indicator species and other wildlife and fish species, and improper procedure for implementing the proposed Forest Plan amendments, which are not site-specific and are amendments that would have significant effects, especially cumulatively. We also express concerns regarding potential impacts to undeveloped lands including uninventoried roadless areas. Lastly, and perhaps belatedly most important of all, the agency’s management approach continues its scientifically blind pattern of forest ecological degradation despite the growing awareness of the cumulative harms projects such as Kew have on incrementally exacerbating climate instability, adding to the consequent rising harmful trends of climate change as this becomes more and more “climate chaos.”

BMBP is opposed to the industrial-style logging practices proposed in the Kew Vegetation Management Project (also referred to as the Kew project, the Kew timber sale, or the Kew sale in this document). Industrial, retrograde forest management practices such as “seed tree cuts” (clearcutting with a few seed trees remaining) and “overstory removal” logging have no place on public lands, and

need to come to an end on all national forests. We are also opposed to proposed logging in: mixed-conifer forests (especially moist and/or mature mixed conifer forests), high elevation areas, logging large trees, logging in mature forests, unroaded areas (including those smaller than 5,000 acres), in Northern spotted owl Critical Habitat Units, dispersal habitat for Northern spotted owls, and over recreation trails (such as mountain bike, hiking, and skiing trails). The proposed clearcutting, logging of overstory trees (the largest and most mature trees in the stand), logging in mature forests, and logging in never-before logged or very minimally logged areas will move forests away from mature and late and old forest structure. Areas proposed for “overstory” logging are already heavily logged, and have suffered extensive cumulative damage. These areas should be left to recover, not logged again for the last remaining trees for their commercial value. We are also opposed the circumvention of Forest Plan standards through the use of project-specific use of Forest Plan amendments, particularly for non-unique rationales and with repeated use by the USFS in numerous timber sales. On this latter, despite repeated logging projects where amendments remove or weaken forest plan standards, the agency has failed in its analysis to assess and disclose the actual results achieved by these amendments, and most importantly, has failed to disclose and assess the cumulative impacts of repetitive ecologically damaging amendments.

We object to the Forest Service’s proposed use of herbicides (glyphosate and hexazinone), gopher trapping, and borax treatments after logging and replanting to protect the unnatural and industrial-style tree plantations which will be created as a result of this project. Toxic herbicides pose risks to human health, ecological functions, biodiversity, native plants and fungi, wildlife species, and insects.

In addition to ecological concerns regarding herbicide use, we are also concerned about: Herbicide application and safety, contamination and risks to medicinal and Indigenous plant uses, and the health and safety of mushroom pickers. Gopher trapping is inhuman and traps may catch non-target species, having negative effects on numerous species. Planned herbicide use and gopher trapping in this project should be canceled. These are strategies to facilitate the establishment of retrograde and industrial-style homogenous plantations, which have no place on public lands. We are concerned that recreational values will be degraded or destroyed by this sale. Proposed logging as well as herbicide use will overlap with recreational trails, such as biking trails. The Forest Service should not be logging in areas that are designated to be managed for values such as scenic views.

BMBP objects to the Kew Project for the following reasons:

I. National Environmental Policy Act (NEPA)

The Kew project violates the National Environmental Policy Act in the following ways: inconsistency with the stated “purpose and need” of the project; failure to provide an adequate range of alternatives; failure to use an EIS instead of an EA to document analysis; failure to adequately analyze direct, indirect, and cumulative impacts of the project; failure to take the requisite “hard look” at project impacts required by NEPA; inaccurate use of science; and failure to use the best available science.

The Kew EA contains an inadequate range of alternatives: The Kew EA failed to analyze a full range of alternatives. The EA should have analyzed alternatives that included options more protective of the ecology, and with fewer negative impacts to the natural and undeveloped character of the area. We request that the USFS prepare an EIS that includes the full range of alternatives, including a no action alternative that offers an unbiased assessment and includes the myriad of documented risks to wildlife, habitats, water quality, soils, and other resources from logging (including post-fire logging). Alternatives should include options with no commercial logging; no project-specific Forest Plan

amendments; no road building; non-commercial logging only; small diameter thinning only; no new “temporary” road construction or reopening of roads; no logging in mixed-conifer habitat; and no logging in Northern spotted owl habitat, especially in CHUs; and, given the burgeoning urgency, alternatives that embody the scientific recommendations to maintain and protect existent forest ecosystems to proactively offset the rising impacts of climate change.

Failure to prepare an EIS: An EIS should have been prepared for the Kew project. We are concerned that the project will have significant negative effects on species such as Northern spotted owls, American marten, Black-backed woodpeckers, Northern three-toed woodpeckers, Williamson’s sapsucker, Townsend’s big-eared bats, Pacific fisher, Western bumblebee, Johnson’s hairstreak, Wolverine, wolves, Sierra Nevada foxes, Canadian lynx, and other native species. The EA does not provide a reasoned decision for their conclusion that logging will not cause significant negative impacts including long-term downward population trends of these and other native species due to direct, indirect, and cumulative effects from this project.

When determining whether an action requires an Environmental Impact Statement (“EIS”), an agency must consider “[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts.” *Env’tl. Protection Info. Ctr. v. U.S. Forest Serv.* (“EPIC”), 451 F.3d 1005, 1014 (9th Cir.2006) (quoting 40 C.F.R. § 1508.27(b)(7)). “Projects that are ‘reasonably foreseeable’ should be included in the cumulative effects analysis.” *Id.* (quoting 40 C.F.R. § 1508.7). However, “projects need not be finalized before they are reasonably foreseeable.” *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1078 (9th Cir.2011).

A federal agency must prepare an EIS for “major federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(2)(C). *See, e.g., Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1185 (9th Cir. 2008) (“If there is a substantial question whether an action ‘may have a significant effect’ on the environment, then the agency must prepare an Environmental Impact Statement (EIS)”) (citation omitted). CEQ regulations define “significantly” as requiring consideration of both context and intensity, with ten significance factors listed under the latter. 40 C.F.R. § 1508.27. Because of the context and intensity of the Kew Project, the Forest Service should have completed an EIS for the project. As such, LOWD/BMBP objects to the Forest Service’s failure to complete an Environmental Impact Statement for this project.

With regard to context, “the significance of an action must be analyzed in several contexts, such as society as a whole (human, national), the affected region, the affected interests, and the locality.” 40 C.F.R. § 1508.27(a). “Significance varies with the setting of the proposed action” and “[b]oth short- and long-term effects are relevant.” *Id.* Here, as evidenced by the numerous issues raised throughout these comments, the context of the Proposed Action mandates that the Forest Service complete an EIS for the project. The Forest Service must give adequate consideration of other past, ongoing, or reasonably foreseeable future projects in the Deschutes National Forest—including other projects directly adjacent to or otherwise near the Kew project area. The Kew EA does not adequately take into account the cumulative impacts of other past, ongoing, or reasonably foreseeable future project on species such as Pileated woodpeckers, Hairy woodpeckers, Sierra Nevada red fox, and others. The analysis does not adequately consider the cumulative impacts of other projects on numerous species—including MIS, ESA-listed, and other native vertebrate species. Examples include Northern spotted owls, Sierra Nevada foxes, American marten, Pacific fisher, wolves, Pileated woodpeckers, Northern flickers, Hairy woodpeckers, Olive-sided flycatchers, Dark-eyed juncos, and others. Also, the context of the Kew analysis is almost entirely quantitative, focusing on the percentages of certain resources that will be affected by the Kew project, in comparison to those resources across the entire Deschutes

National Forest and Bend-Fort Rock Ranger District. But the Forest Service must look not only at the quantitative context, but also the *qualitative* context, and ask whether—in the context of the many other previous, ongoing, and reasonably foreseeable future projects—the Kew project is likely to significantly affect the *quality* (not simply quantity) of the environment. The EA oversimplifies and misconstrues this significant issue, misrepresenting percentages of areas affected by the Kew project while citing percentages overall across the forest – but most importantly, failing to disclose and assess the harsh realities that most wildlife habitat throughout the Deschutes National Forest – especially within and adjacent to the Kew Project – has already been degraded on a vast scale and as such no longer provides adequate habitat for the numerous species of concern affected. For many species, the drastic loss of old forest cover and structure throughout the Deschutes National Forest has resulted in a situation in which many species are cobbling together home territory habitat as best they are able in an attempt to survive. Such widespread diminished and degraded habitat puts extreme emphasis on the critical importance of all remaining existent forest cover and old and maturing forest structure – much of which would be further diminished by the Kew Project. Yet the cumulative analysis, including the failure to conduct a more comprehensive EIS, fails to accurately and adequately address and disclose these realities, and fails overall to address the significant cumulative impacts from adding this project too into the litany of those that have logged the greater project area. Instead of complying with the NEPA, the USFS rests their ultimate dismissal on the low percent of habitat affected by the Kew project when viewed at the forest scale. However, this does not adequately consider the cumulative impacts of other projects on numerous species—including MIS, ESA-listed, and other native vertebrate species. Examples include Northern spotted owls, Sierra Nevada foxes, American marten, Pacific fisher, Pileated woodpeckers, Northern flickers, Hairy woodpeckers, Olive-sided flycatchers and Dark-eyed juncos, and others. Indeed, the context of the Kew analysis is almost entirely quantitative, focusing on the percentages of certain resources that will be affected by the Kew project, in comparison to those resources across the entire Deschutes National Forest and Bend-Fort Rock Ranger District. But the Forest Service must look not only at the quantitative context, but more importantly must address the *qualitative* context, and ask whether—in the context of the many other previous, ongoing, and reasonably foreseeable future projects—the Kew project is likely to significantly affect the *quality* (not simply quantity) of the environment. Further, the agency must accurately disclose not the quantity of existent acreages, but instead disclose the habitat quality throughout the greater affected area post project given the already extensive cumulative habitat degradation from past and ongoing logging projects. These deficiencies in the EA's analysis underscore the stringent need for an EIS, as the EA's cursory 'analysis' fails to answer the basic tenets of NEPA's queries regarding cumulative impacts analysis, for the questions remain: What are the total habitat percentages affected by the Kew, Lex, West Bend, Rocket, Drink, Ursus, Snow, and other past, present, and reasonably foreseeable projects in the greater analysis and adjoining areas? What are the overall habitat qualities affected across the area by these projects, and what percentage of overall available habitat is present in a degraded diminished state? These simple yet so essential questions have never been adequately or accurately answered by the Kew EA. Instead, the agency has attempt to obfuscate these issues by replacing accurate cumulative impacts assessments of habitat quality with misrepresentation of quantity – and on doing so on a grand forest-wide scale rather than addressing the actual impacts and habitat qualities in the project area itself and its adjoining areas. Because the Forest Service failed to adequately and accurately analyze the cumulative context of the Kew project, the Decision Notice is flawed and arbitrary and capricious.

We are also very concerned about potential negative impacts to riparian areas, and to species such as the Crater Lake tightcoil, Shiny tightcoil, and Evening fieldslug (all had MIIH determinations by the USFS). The USFS needs to adequately analyze the potential impacts to these species in an EIS.

With regard to intensity, the Forest Service must consider ten factors to determine whether the intensity, or severity of impact of a project, mandates an EIS as opposed to an EA/FONSI. 40 C.F.R. § 1508.27(b). The Kew Project implicates many of these factors. As described below, the project will result in significant effects due to, among other things, the large geographic scope of the project, the likely significant negative effects to Endangered Species Act (ESA)-listed species such as Northern Spotted Owls, potential downward trends or loss of viability for ESA, management indicator species (MIS), and sensitive and at-risk species, and the risk of significantly negatively affecting terrestrial ecosystems and the species that depend on them. Because there is a high likelihood that this project will significantly affect the human and ecological environments, the Forest Service's determination that the overall project will not significantly affect the human environment and therefore does not need an EIS is arbitrary and capricious, and lacks sufficient evidence, quantification, or justification. As such, the Decision Notice and Finding of No Significant Impact (DN and FONSI) is arbitrary and capricious and the Forest Service should have prepared an EIS for the Project.

Assessing the factors involved directing the agency to prepare an EIS:

Factor 1: Impacts that may be both beneficial and adverse: The Proposed Action will have numerous effects on the environment. These effects, which are addressed throughout the EA and also in this Objection, include both beneficial effects and adverse effects. The fact that the Forest Service believes that on balance the project will ultimately benefit the environment has no bearing on whether the effects of a project are "significant" enough to warrant an EIS. Here, the EA is clear that the Project will have numerous effects that, regardless of their beneficial or adverse nature, are significant.

Factor 4: The degree to which the effects on the quality of the human environment are likely to be highly controversial. LOWD/BMBP's objections demonstrate the highly controversial nature of the effects of the Proposed Action on the quality of the human environment. As evidenced throughout this Objection, as well as LOWD/BMBP's scoping comments and comments on the Draft EA, there are significant unresolved scientific disputes regarding much of the science and data on which the Forest Service relied in selecting the Proposed Action.

Factor 6: The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration. The Kew Project has established a precedent for future actions with significant effects, and represents a decision in principle about a future consideration. For example, Kew sets a precedent with extensive heavy industrial-style logging practices within NSO CHUs, including clearcutting, overstory removal, gopher trapping, herbicide use, and other scientifically unfounded, ecologically harmful practices.

Further, flowing from the *Snow Basin* decision, if the Forest Service was able to continue without providing an EIS it would effectively ignore the precedent set in the case. Furthermore, the Forest Service's continued attempts to create site-specific exclusions to the Deschutes Forest Plan establishes a stronger precedent each time a timber sale is permitted with the minimal review conducted for this sale. Please also see the NFMA section in this objection regarding the USFS's improper use of project-specific Forest Plan amendments for more detail on this issue.

Factor 7: Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts. The Kew Project warrants a full environmental impact statement due to likely significant impacts to ecological functioning and wildlife species from its large scale, cumulative impacts with other similar adjacent and nearby timber sales. These include

the Lex, West Bend, East Bend, Rocket, Ursus, Snow, EXF, Drink, and others which are all being implemented within the same general areas of the Bend-Fort Rock Ranger District, often with adjacent or nearly adjacent boundaries, and within the same general timeline for implementation, creating extensive cumulative effects that are not being analyzed. In its cumulative impacts analysis regarding fire, the Lex FEA notes that: **“there are ongoing or planned fuels modifying activities on approximately 18,855 acres associated with the West Bend, Rocket, Junction, and Kew projects. Cumulatively these activities would result in approximately 41% of this landscape receiving a fuels modifying (or fire surrogate) treatment in a temporal period of around 30-35 years (2001-2035).”** BMBP notes that 41% is a very high percentage of the landscape; the USFS has avoided analyzing the cumulative impacts or a significance determination by failing to take these and other sales into account in their other analyses throughout the FEA. Compound this 41% figure with the rather obvious reality that most of the greater adjoining forest across the landscape has been logged over the past several decades, with a significant majority of the area’s forests in a degraded state as regards wildlife habitat and intact unlogged ecological functioning. Yet the limited cursory analysis in the Kew EA fails to adequately address these significant cumulative impacts issues.

As previously stated, the Forest Service failed to adequately assess the cumulative impacts of past, present and future impacts of the site-specific amendments to the Kew Project area. Failure to recognize that—while many of the previous amendments to the area could, if viewed in isolation, be seen as insignificant—when viewed with the understanding of the interconnected and cumulative capacity of an active biosphere, individually insignificant impacts can become significant impacts when their cumulative impacts are examined. Failure to look at the past, present and future amendments to the project area clearly fail to meet the intensity standard NEPA requires.

The Forest Service has implemented nearly several identical site-specific amendments in ten previous timber sales within the Deschutes National Forest. While the Forest Service attempts to justify its failures to consider the cumulative impacts of such sales by falsely claiming that the sales do not overlap geographically or temporally, any reasonable observer would realize that this piecemeal undermining of the approved Forest Plan will certainly cause cumulative impacts to forest management practices. Such changes require the thorough analysis of an EIS.

Factor 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. The project area is inhabited by several listed species, and thereby requires close consideration of any environmental impacts that could adversely affect either the species or their critical habitat. Northern spotted owls live in much of the Deschutes National Forest; the Forest Service claims that spotted will not be significantly affected by the project and will not pursue section 7 consultation. BMBP disagrees with this conclusion and believes that the Forest Service must consult with the Services about potential impacts to Northern Spotted Owls. The agency took this similar stance with the nearby Lex Project, and now is attempting to compound harms from that project to NSO habitat with the Kew Project while evading the legally requisite responsibility to consult, and adjust planned actions accordingly so these do not negatively impact the Northern Spotted Owl and other species of concern across the greater project area.

Factor 10: Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment. As discussed above, the Forest Service violated both the black-letter law of NFMA as well as the underlying policy rationale. NFMA requires the Forest Service to use forest plans to guide individual actions taken within the National Forests. By creating site-specific exceptions to the Forest Plan in order to permit otherwise unlawful timber sales, the Forest

Service undermines its statutory obligations and creates precisely the patchwork management scheme that Congress passed NFMA to prevent.

The Kew EA failed to adequately analyze direct, indirect, and cumulative effects: The Kew EA contains an insufficient effects analysis. The EA failed to quantify potential impacts to listed and sensitive species such as Northern spotted owls, wolves, Pacific fisher, and sensitive botanical species, and failed to adequately analyze the actual effects to each species' viability in the Kew project area. For example, the logging will result in a loss of adequate hiding cover for deer and elk for at least 10-15 years. There is an insufficient effects analysis for determination of the consequences to particular wildlife species. This loss of forest density and wildlife habitat would have numerous consequences for other species as well. The scale of the effects analysis was inappropriate for a number of species and issues, including but not limited to Black-backed woodpeckers, road densities, and cumulative impacts. Cumulative effects to species from nearby projects was not adequately considered.

The Kew EA also fails to take into account repeat future entries, both in the Lex project and in other adjacent, nearby, or overlapping area. For example, for the adjacent Lex sale, the Lex FEA (pg. 172) states that “[s]ustained alteration of fire behavior requires effective and frequent maintenance, so that the effectiveness of any fuel treatment, including fuelbreaks, would not be only a function of the initial prescription for creation, but also the standards for maintenance that are applied (Agee et al, 2000). To meet and maintain desired conditions in the Lex planning area, multiple entries of thinning, mowing and/or prescribed burning may be required. Fire management personnel on the Deschutes have observed that mowing treatments typically start losing their effectiveness at reducing potential fire behavior after five years.” Given the numerous projects the Forest Service has initiated in the greater area, the “multiple entries of thinning, mowing and/or prescribed burning” required by the agencies own admission across all these adjoining projects over extended periods of years represents significant disturbance and ongoing alteration of affected project area wildlife habitat, yet the agency has failed to begin to adequately address these widespread cumulative disturbances across the affected forest landscape. An EIS needs to be conducted to take into account these and other cumulative impacts.

The Kew EA fails to take into account the cumulative effects of soil damage, degradation, and failure to meet Forest Plan standards across numerous projects in the Deschutes National Forest. The Kew EA fails to analyze the cumulative impacts on soils in combination with projects such as Lex, West Bend, Rocket, Drink, Snow, and others that are nearby or directly adjacent to Kew, and so the cumulative impacts on soil resources were not considered. However, simply because these nearby or adjacent projects do not directly overlap does not mean that ecologically important and negative impacts to soils are not taking place at a larger, cumulative scale. Soil compaction and degradation affects crucial ecological processes such as water infiltration, fungal and mycorrhizal presence and interactions, site productivity, tree and plant growth, soil microbe diversity, and other important aspects of ecological interactions with soils. It is disingenuous for the USFS to pretend that widespread degradation of soils cannot or will not have cumulative impacts across the landscape. None of the ground disturbing project activities proposed in projects such as the Lex, Drink, Junction, Rocket, and West Bend sales were analyzed for cumulative impacts.

We also object to the lack of data relative to the overarching goals associated with the USFS's justification for logging. For example: what is the percent Ponderosa pine plantations in the Kew project area, as well as in the watershed and at the Forest scales? How does this compare to landscape-scale “desired conditions? Also, what are USFS percentages and criteria for the less common, but ecologically important, habitats such as fire refugia? How does the USFS ensure that it is accounting for additional nuance and important variation in habitat conditions?

We are also concerned that the Kew FEA did not analyze potential direct, indirect, and cumulative effects to Boreal owls, which have been seen near the project area. We are very concerned that the Kew project could have negatively affect the habitat, population trends, and viability of this species.

The purpose and need is overly narrowly construed. Proposed action fails to meet/contradicts the purpose and need for the project: The purpose and need of the Kew project is overly narrowly construed, and precludes the selection of a truly restorative alternative. The Kew EA's purpose and need fails to acknowledge the integral and ecologically beneficial roles of fire, insects, and disease in forest ecosystem integrity. Rather, the purpose and need strives to reduce these beneficial and natural processes on the landscape, and will instead move forests into more unnatural, heavily managed landscapes that grow straighter trees more quickly—despite the ecological harm from logging, continued fire suppression, and roads, and despite the harm created by depriving forests of the heterogeneity and integral ecological processes and functions that are provided by natural disturbances. The implied desired future conditions in the purpose and need are more in line with economical forestry goals for timber harvest than they are with ecological health and integrity. These narrowly construed and unnatural outcomes do not allow for serious consideration of more ecologically beneficial alternatives, much less their selection. The USFS should not overly narrowly construe the purpose and need of the project in such a way as to preclude more environmentally protective and beneficial alternatives.

Not using best science or disclosing scientific integrity: The Kew FEA has failed to use the full range of best available science, and has cherry-picked studies that support USFS rationales for logging. For example, the Kew EA asserts that Olive-sided flycatchers will benefit from logging in the Kew project. Contrary to this, studies such as *Is selectively harvested forest an ecological trap for Olive-sided flycatchers?* by the well-published and respected scientists Dr. Robertson and Dr. Hutto, which shows a loss of nesting success in thinned forests compared to unthinned forests, have not been considered by the USFS. The Melvin Butte FEA notes that: “[p]opulation trends based on BBS data show highly significant declines with an Oregon statewide decline of 5.1% per year from 1966-1996 for the olive-sided flycatcher.”

There are many such examples of peer-reviewed scientific studies with findings contrary to USFS assumptions and rationales that the agency uses to justify logging—and that the USFS consistently ignores. Examples also include science we submitted on Bark beetles, mistletoe, and high-severity wildfire. We remain concerned about the issues we raised in our comments and provided scientific evidence on regarding Bark beetles and other controversial issues. The USFS is not using the full range of best available science, and is cherry-picking only the science that supports their agenda of logging.

In addition to the relevant scientific research provided with our comments on the EA, we point out that science by its nature is ever evolving, growing in awareness and evaluating its accuracy or lack thereof. Just because the USFS has done something in the past does not ensure that no scientific controversy will arise in the present or future. In fact, learning new information from scientific research is integral to adaptive management and the protection of ecosystems. Furthermore, the USFS's actions continue to face significant ongoing controversy, both public and scientific.

Another example of not using best available science and of lacking scientific integrity is the USFS's continued insistence in using the Van Pelt guidelines to identify old Grand fir. The Van Pelt guidelines DO NOT contain clear guidelines for identifying Grand fir, by their own admission. The Kew EA states that “[a]ll white fir >30 inches dbh or with two or more of the following old tree characteristics

(as described by Van Pelt 2008) will be retained.” However, the EA fails to state what these two guidelines are, likely because they don’t exist. The Van Pelt guidelines are wholly inadequate for determining the age of Grand fir, as they do not contain guidance that can be used in the field to reliably identify Grand fir older than 150 years. Also, it is large trees that are necessary for wildlife habitat—regardless of age— and those are in extreme deficit across the region due to logging. The Ursus Environmental Assessment on the Deschutes NF discusses the inadequacies of the Van Pelt guidelines for determining age (USFS pg. 77): “A size or a diameter limit was chosen as the best metric to measure effect on trees that are old or large on the landscape. Other considerations were made, such as using Van Pelt’s guide to identify old grand (white) fir, but due to the characteristics of white/grand fir it was determined to not be an accurate metric. Bark on white/grand fir never develops the thickness of its more fire-tolerant associates. The transformation that many trees experience from young gray bark to increasingly more colorful mature bark does not occur with white/grand fir. Even in giant old trees, bark characteristics reveal little about age. Like Douglas fir and western larch, white/grand fir is an opportunist, and has epimoric branch formation. As the stand matures and conditions change around a tree, light penetration may allow new branches to grow where they had been previously lost. Crown condition, tree form, and bark fissures are not an accurate way to tell age. Other than size, there is little else on white/grand fir that indicates age.”

The continued use of the Van Pelt guidelines by the USFS in sale after sale is inexcusable and significantly erodes public trust. During at least 10 objection resolution meetings on eastside National Forests, and at least three meetings on the Deschutes National Forest, the USFS has admitted and is aware that the Van Pelt guidelines are unable to provide the guidance that the USFS is attempting to ascribe to them. The USFS needs to stop pretending that these guidelines provide criteria that simply do not exist. It is difficult to come to the table to discuss negotiations or potential resolutions when key features of USFS assumptions, such as the use of the Van Pelt guidelines for ostensibly identifying old Grand fir, are simply disingenuous.

Rather than recognizing that *large* trees, including firs, are extremely important for wildlife habitat and at a severe deficit across the landscape—and so it is *large* as well as old trees that should be conserved—the Forest Service is instead attempting to double down on their attempts to rationalize profitable large-tree logging. Guidelines in the Kew FEA for identifying old Grand fir continue to be unclear and not well substantiated. For example,

The Kew FEA (pg. 470) states that guidelines for identifying old Grand fir will include additional characteristics from recently published scientific papers such as Johnston, J. D., Dunn, C. J., Vernon, M. J., Bailey, J. D., Morrisette, B. A., & Morici, K. E. (2018). Restoring historical forest conditions in a diverse inland Pacific Northwest landscape. *Ecosphere*,9(8). doi:10.1002/ecs2.2400.

The DNF will be using the following guidelines for identifying old Grand fir (Kew FEA pgs. 469-470): “All white fir >30 inches dbh, with bark fissures ≥ 2 inches in depth from outer portion of bark, with ≥ 9 feet distance from ground to first dead branch on the bole, or with two or more of the following old tree characteristics (as described by Van Pelt 2008) will be retained.” The Kew FEA goes on to state that “For grand/white fir: Multiple forked tops evident Broken tops showing lateral branch dominance Wood decay fungi, and especially Indian paint fungus, conks present Epicormic branches present on lower bowl”.

However, the Van Pelt guidelines as well as the USFS in the Ursus Environmental Analysis both note that bark characteristics are unreliable indicators of age for Grand fir. Epicormic branching is variable depending on sunlight, competition and nearby tree placement, topography, etc., and in addition could be very subjective in the field. Many trees may be old even though do not have broken tops, conks, or Indian paint fungus. Are contractors going to be trained in

identification of Indian paint fungus? Does a lightning strike that produces a broken top suddenly age a tree from “young” to old?

The Johnson et al. (2018) paper states: “Available soil water (ASW), bark fissure depth, and topographic position index (TPI) were the most influential predictors of grand fir age identified by random forest analysis (Fig. 5A). The most influential predictors of Douglas-fir age were height to the first dead branch, PVT, tree height, and elevation (Fig. 5B). Integrating environmental variables and additional tree morphological characteristics into models significantly improved the ability to predict tree age over models that used dbh alone to predict age.”

Are contractors going to be trained in looking at ASW? Are guidelines going to be changed depending on topographic position? Or, in the case of Douglas-firs, will the guidelines also be changed according to tree height? Elevation? While we understand that complex models including multiple environmental variables and tree morphological characteristics may more accurately predict tree age in certain situations—the complexity and variability of such models makes them impractical and very subject to error if they were to be applied across landscapes, differing ecotones and forest types, wide geographic ranges, etc.

In addition, all of this again ignores the crucial reality that wildlife need large trees for habitat, and that large trees are in a severe deficit across the landscape and should not be logged.

The Forest Service claims that Grand firs and other less fire-resistant trees are present in larger numbers and higher densities across the landscape than they were historically, as a consequence of fire suppression. However, as BMBP has noted, the Forest Service abuses this rationale by applying it overly broadly and aggressively, and uses it as an excuse to extensively log old growth and mature forests—including in ecologically inappropriate areas such as forests with ample evidence of historic mixed-conifer and high-density forests, on north and east facing slopes; deep gulches and narrow valleys; forests on soils that hold more nutrients and moisture (such as ash soils); and other areas that show historic evidence of supporting mixed-conifer forests in general and Grand fir in particular. The Forest Service is using flawed assumptions that lack adequate scientific backing in order to log in ecologically inappropriate and sensitive areas, and to remove large trees across many thousands of acres—despite the documented deficit in large trees across the landscape and their importance to wildlife. Furthermore, fire suppression efforts of the past were highly unlikely to have been widespread or effective in remote areas such as those within the project area until recent decades. The long timeframe the USFS consistently puts forth for fire exclusion is an extreme overestimate. Heyerdahl et al. (2002) note that fire suppression was not effective until recent decades: “...**active fire suppression by land-management agencies because these efforts were probably not effective until the 1940s–50s when surplus military aircraft became available**”.

Resolution:

BMBP has raised these issues in our comments submitted to the scoping and draft EA periods. To resolve our objections:

- *The USFS needs to conduct an EIS for the Kew project
- *The EIS should include an adequate range of alternatives that allow for a truly ecologically restorative alternative, as well as a purpose and need that is not overly narrowly construed
- *The USFS needs to adequately analyze the direct, indirect, and cumulative impacts to species, including a proper scale of analysis in response to our above objection issues.

National Forest Management Act (NFMA)

The DNF plans four Forest Plan amendments as part of the Kew project. Two of these project-specific Amendments involve Scenic View, and two involve hiding and thermal cover in the Key Elk areas.

Forest Plan Amendments related to Elk:

The Kew draft Decision Notice and the Kew EA outlines the amendments (DN pages 19-21 and EA page 326): Two amendments are planned related to elk hiding and thermal cover within the Ryan Ranch KEHA. These project-specific amendments would apply only to the Kew Project. An amendment to WL-47 (elk hiding cover standards) within Ryan Ranch KEHA would be required for implementing Alternative 2. All action alternatives would require an amending WL-50 (elk thermal cover) for the Ryan Ranch KEHA.

In the project area hiding cover is already significantly below the Forest Standard WL47 of 30% minimum hiding cover, currently only providing 20% hiding cover pre-project. Implementation of the Kew project would drastically reduce available hiding cover even further, to only 13% - less than half the Forest Service's stated requisite standard. Yet, with the implementation of this project, the agency plans to amend the hiding cover standard so drastically as to render it meaningless, resulting in significantly increased jeopardy of mortality to elk, which depend upon adequate hiding cover to survive. Additionally, the draft Decision Notice (DN) further states: "Oregon Department of Fish and Wildlife manages hunting permits and these amendments would not affect access to permitted hunting in this area" (DN pg. 22). We herein emphasize the significant increased risks to elk in the greater project area from this project, as not only will it reduce available hiding cover to less than half that considered necessary for elk, hunting will be allowed in the area as usual despite the untenable loss of essential hiding cover. Further, the EA and its supporting documents fail to meaningfully and accurately address the cumulative harms resulting from this project not only to elk, but to all wildlife species, terrestrial and avian, from such a huge loss of essential hiding cover.

The DN also discloses that the Forest Standard for elk thermal cover WL50 of 20% would lessen the current thermal cover, which is barely above this minimum standard at 21% pre-project, dropping the available thermal cover to only 15% post project. What the EA and DN notice fail to meaningfully disclose and address, is that these 'numbers of paper' have real life and death consequences to elk and numerous other wildlife species which are all dependent upon thermal cover to survive the area's harsh extreme winter weather conditions. Cumulatively, the significant reduction in both hiding and thermal cover will continue to adversely impact elk and many other wildlife species for years untold beyond the project's conclusion, yet nowhere are these harmful impacts, both direct, indirect, and cumulative, accurately, meaningfully, and comprehensively addressed in the very real life and death realities they will actually have upon elk and other wildlife mortality.

The DN also discloses in this section that the project area is already in violation of the Forest Standard WL46 of .5 to 1.5 mi/mi² for road density levels as relates to wildlife and elk in particular. The DN discloses that currently the road density in the Kew area is 3.28 mi/mi² – over double the forest plan standard for elk viability. While the DN discloses this will come down somewhat with the project's implementation, claiming post project that the road density will be 2.7 mi/mi², this claim is spurious as it fails to account for the many years long open impacts of logging such as planned. In addition to existent roads, the project will engage in the rampant use of heavy logging machinery, including the creation of skid trails that ecologically

have the same impacts of existent roads in terms of diminished cover and more open accessibility throughout the affected area. Further, the project fails in its responsibility to meaningfully address and meet existent Forest Plan standards for road densities post project, losing this opportunity to further reduce road densities throughout the project area so they are at a minimum within the 1.5 mi/mi². Yet the EA and DN fail to disclose to the public why such a planning effort has not been made at all with this project. Such capricious treatment of Forest Plan Standards by the agency fails the legally and ethically binding requirements of both the NEPA and the NFMA.

Forest Plan Amendments related to Scenic Views (draft DN pages 11, 17-19; EA pg. 319):M9-8 (LRMP 4-123), regarding Timber/Ponderosa Pine – Foregrounds Current Language: In Retention Foregrounds, slash from a thinning or tree removal activity, or other visible results of management activities, will not be visible to the casual forest visitor for one year after the work has been completed. In Partial Retention foregrounds, logging residue or other results of management activities will not be obvious to the casual forest visitor two years following the activity.

Amended Language (Changes in **Bold**): In Retention Foregrounds, slash from a thinning or tree removal activity, or other visible results of management activities, will not be visible to the casual forest visitor for one year after the work has been completed. In Partial Retention foregrounds, logging residue or other results of management activities will not be obvious to the casual forest visitor within two years following the activity. ***In Retention and Partial Retention areas, the visual effects of prescribed fire will not be obvious to the casual forest visitor five years following burning.***

M9-90 (LRMP page 4-131) Current Language: Low intensity prescribed fires will be used to meet and promote the Desired Visual Condition within each stand type. Prescribed fire and other fuel management techniques will be used to minimize the hazard of a high intensity fire. In foreground areas, prescribed fire will be small, normally less than 5 acres, and shaped to appear as natural occurrences. If burning conditions cannot be met such that scorching cannot be limited to the lower 1/3 of the forest canopy, then other fuel management techniques should be considered

Amended Language (Changes in **Bold**): Low intensity prescribed fires will be used to meet and promote the Desired Visual Condition within each stand type. Prescribed fire and other fuel management techniques will be used to minimize the hazard of a high intensity fire. ***The size will be dependent on logical burning perimeters to utilize natural fire breaks, roads and trails to minimize ground disturbance.*** In foreground areas, burning conditions should be such that scorching would ***generally be limited*** to the lower 1/3 of the forest canopy.

Forest Plan Amendments should not be done on a project-by-project basis, as Forest Plans are meant to provide a forest-wide vision for the forest. If each project then amends the Forest Plan based on that specific project's needs, there will be no forestwide standards or management. It is incomprehensible to us why the Forest Service does not act to abide by their Forest Plan standards by taking the logical course, based on their own analysis, of not continuing to degrade cover for big game past the point of continued viability through logging removal, and also to continue chipping away at scenic views. Mule deer are already in decline on the Deschutes National Forest due to a combination of hunting pressure, lack of adequate security cover, human disturbance, and hard winters. What are current elk population trends? The EA fails to present the substantive evidence requisite for its conclusions. The USFS determination that the proposed project-specific amendments will not have significant impacts is arbitrary and capricious, and needlessly violates Forest Plan standards.

Kew FEA (pg. 331): “[w]ithin all action alternatives, treatments are proposed within the Ryan Ranch KEHA. These treatments would work towards meeting the purpose and need of the Kew project to increase wildlife habitat effectiveness through management of the transportation system and addressing user-created roads and trails. Alternative 2 would include about 1,519 acres of understory treatment within that are expected to reduce the amount of hiding cover for elk within the Ryan Ranch KEHA....Thermal cover is provided by stands with an overstory canopy cover greater than or equal to 40%. Proposed overstory treatments would likely reduce canopy cover below 40% reducing thermal cover. Overstory treatments within the Ryan Ranch KEHA would affect from 1,214 to 722 acres, depending on alternative, reducing thermal cover.”

The Forest Service’s stated rationales to propose Forest Plan amendments for the Kew timber sale project are not unique or site-specific at all, as evidenced by multiple Forest Plan amendments proposed to allow for extensive heavy logging to violate Forest Plan standards for cover for big game and scenic views across the Deschutes and other eastern Oregon National Forests. In the DNF and across the region, the same or very similar rationales regarding fuels reduction has been repeatedly used to justify the USFS’s improper use of Forest Plan amendments. This is simply Forest Service unwillingness to challenge the current unsustainable scale, pace, and intensity of logging being pushed by the Region 6 Forest Service. It seems there is already a negative population trend for Mule deer; the DNF is ignoring security cover considerations as related to population viability—especially important for a hunted species. It is not clear that the Kew timber sale would not cause or contribute to population decline for Rocky Mt. elk or Mule deer. The Key Elk Habitat Area (KEHA) does not currently meet Forest Plan standards for providing hiding cover to elk. Additional reduction of cover for elk will not provide for the habitat needs of elk, and will have serious and negative impacts.

The Kew FEA (pg. 332) states: “No previous projects on the Deschutes National Forest have amended WL-47, WL-50 or other standards and guidelines related to Key Elk Habitat Areas (KEHA). Only two other ongoing projects occur within the Ryan Ranch Key Elk Area, West Bend and the Upper Deschutes River Wildland-Urban Interface Fuels Reduction Project (UDR). Neither project reduces mapped elk hiding cover. The West Bend project and UDR project activities reduce thermal cover by up to 292 acres and 4 acres, respectively, within the Ryan Ranch KEHA.”

However, several nearby sales reduce cover for big game, including hiding and thermal cover. The loss of cover for big game, even different categories of cover, clearly affects overall important cover habitat for elk as well as deer, and is likely negatively affecting viability when such habitat degradation is looked at cumulatively. Other timber sales in the DNF were not included in the cumulative affects analysis, but certainly contribute to cumulative impacts to the Forest Plan Amendment to reduce hiding cover below standards as proposed in the Kew timber sale: The West Bend ROD (pg. 4) states: “Forest Plan Amendments: This decision includes non-significant and site-specific forest plan amendments as described in the FEIS pp. 46-50 and 472-477. First, the thermal cover objective of 30% for the Deer Habitat Management Area cannot be met because it is already below that. Thinning in the selected alternative will reduce it by 1%. The Rocket timber sale also has a Forest Plan amendment to reduce (or further reduce) cover below standards: “the thermal cover standard objective of 30% for the Deer Habitat Management Area cannot be met because it is already below that.” Lex will also reduce hiding cover. Additionally, there have been other timber sales implemented in the greater project area, both in the relatively recent past (such as Snow/Snow Fuels), and previously, yet the analysis in the Kew EA fails to account for these or for the general cumulatively fragmented and degraded current state of much of the project area and surrounding forest. The USFS’s determination that the proposed Forest Plan amendments in the Kew sale will not have cumulative significant impacts is arbitrary and capricious; the USFS did not adequately analyze cumulative impacts.

The DNF also fails to take into account the loss of quality as well as amount of cover across multiple sales in adjacent and nearby sales. The project-specific Forest Plan amendments to reduce cover in this project will contribute additional negative cumulative impacts to elk. The rationale for the proposed Forest Plan amendment to violate existing Forest Plan standards hiding cover is not adequately taking into account the significant cumulative effects to big game of many such timber sales depleting cover across the District and the Forest, including Lex, West Bend, Ursus, Rocket, and Junction projects, as well as many other timber sales across the Deschutes. The cumulatively significant impacts of loss of cover for big game and in viewsheds failed to consider the loss of associated biodiversity for those stands.

Until the process for a Forest-wide Forest Plan Amendment is complete, the DNF should not move forward with current plans for non-unique, piecemeal, repeated, and improper use of Forest Plan amendments. Such actions moot the current Forest Plan direction, and do not allow for planning or enforcement of landscape level standards.

Effects on scenic views from prescribed burning continue long after a 5-year time period. Prescribed burns often do not look like natural wildfires, and they may change the ecological trajectories of the affected forest (Pilliod et al. 2006). Given that prescribed fire does not look, act, or necessarily have the same ecological effects as wildfire, it is arbitrary and capricious to state that the visual effects and deviation from natural processes will be insignificant.

The following is illustrative of the “bait and switch” obfuscation the agency has utilized throughout the EA in an attempt to hide the cumulative significance of its actions, in this example one of its Forest Plan amendments:

Draft DN, page 18, identifies the project acres affected as:

Partial retention foreground: 504 acres

Retention foreground: 87 acres

Total acres within the foreground: 591 acres

Percentage of project area foreground 66%

Percentage of Deschutes National Forest Scenic Views: .3%

The above breakdown included in the DN violates the NEPA’s requirements for accuracy and objective analysis. It represents a poorly veiled contrived attempt at obfuscation of the actual totals of acres affected, as it fails to account for the current percentage of Deschutes National Forest Scenic Views that are out of compliance with the Deschutes Forest Plan Standards and Desired Visual Conditions. Visitors to the greater project area, and for that matter most anywhere within the Deschutes National Forest itself, will find rampantly abundant obvious visual effects of past and ongoing projects across the landscape, including huge slash piles, logging clearings and debris, logging skid trails, past and recent burns, as well as other visual evidence obvious to even the most casual forest visitors. The above chart on page 18 of the DN, to comply with the clear requirements of the NEPA, would have to accurately disclose the current and cumulative percentage of the forest’s “Scenic Views” that fail to meet the Deschutes Forest Plan Standards, which clearly would be far in excess of a mere .3% of the DNF.

When an agency makes a “significant amendment” to its resource planning document, NFMA requires that it follow NEPA procedures and involve the public through an EIS process. 16 USC 1604(f)(4). Forest Service regulations further govern the way a Forest Plan can be amended. See 36 CFR 219.13 (2012). The DNF has used improper procedure to amend its Forest Plan to eliminate standards for

burning in Scenic Corridors, and further reducing elk cover in the Ryan Ranch KEHA. Plans must be amended with proper NEPA procedure. 36 CFR 219.13(b)(3). Proper NEPA procedure requires that an agency take cumulative impacts into account. 36 CFR 220.4(f). The USFS has not adequately analyzed the cumulative impacts associated with amending the DNF Forest Plan on a case-by-case basis. Simply listing past and ongoing projects that may contribute to the cumulative impacts of the amendments and then arbitrarily determining that the percent of forest affected is not significant does not constitute adequate analysis. These amendments require consideration of the cumulative impacts of all site-specific amendments across the DNF. Site-specific amendments occur in a piece-meal fashion, yet they cumulatively affect the forest. Once all site-specific amendments to the DNF Forest Plan are disclosed, it becomes apparent that they are “significant,” as they are occurring across the landscape. In this case, an EIS must be prepared. 36 CFR 219.13. When an agency makes an amendment to the Forest Plan, it must document the amendment in a decision notice document, which must include specific information. 36 CFR 219.14(a)(2012). This minimal information given in the Kew EA does not comply with NFMA regulations that govern plan amendment. The DNF must give information regarding “An explanation of how the plan components meet the sustainability requirements of §219.8, the diversity requirements of §219.9, the multiple use requirements of §219.10, and the timber requirements of §219.11;(a)(2)” and “documentation of how the best available scientific information was used to inform planning, the plan components, and other plan content, including the plan monitoring program (§219.3).” 36 CFR 219.14(a)(2) and (4).

We strongly urge the Forest Service to drop all proposed project-specific Forest Plan amendments. This includes dropping the proposed Forest Plan amendments that would reduce thermal and hiding cover for elk below Forest Plan standards, including dropping sale units that provide important cover for big game so that this Forest Plan amendment would not be required. We request that the USFS also drop the proposed project-specific Forest Plan amendment to expand the size and duration of affected areas related to prescribed burning in scenic corridors.

We request that the USFS increase overall tree density and deer and elk cover, and drop logging in mixed-conifer forests and areas with cool moist, cold dry, and cool dry habitat and in microhabitat patches where greater density would naturally occur, such as at higher elevations, within riparian zones of influence, and on North to Northeast aspect slopes. We also request that the Forest Service drop sale units as necessary to avoid using the Forest Plan amendments for reducing cover for elk below or further below Forest Plan standards. See our survey sheets regarding project units actively used by elk and deer. Please see our survey sheets for project units to be dropped, such as those that highlight wildlife signs, and signs of active elk and deer use of the unit such as elk and deer scat, tracks, and trails, and subjective evaluations, recommendations, and overall unit descriptions regarding assessment of the quality of elk and deer cover.

The rationale for the proposed Forest Plan amendments to violate existing Forest Plan standards hiding cover is not adequately taking into account the significant cumulative effects to big game of many such timber sales depleting cover across the District and the Forest, including Lex, West Bend, Ursus, Snow, and Rocket projects, as well as many other timber sales across the Deschutes. For example, the cumulatively significant impacts of loss of cover for big game and in viewsheds failed to consider the loss of associated biodiversity for those stands.

In its analysis for the nearby Lex Project, the USFS states that there “have been two previous project specific non-significant amendments of WL-54 on the Deschutes National Forest. The Opine Vegetation Management Project Decision Notice in 2007 and Deadlog Vegetation Management Decision Notice in 2009 both contained amendments to allow for further reductions of mule deer

hiding cover below 30% in summer range.” However, several sales reduce cover for big game. In some cases, the cover may be “thermal” instead of “hiding”. However the loss of cover for big game, even different categories of cover, clearly affects overall important cover habitat for both deer and elk (as well as numerous other forest dependent species), and is likely negatively affecting viability when such habitat degradation is looked at cumulatively. Examples of timber sales in the DNF that were not adequately or accurately addressed in the cumulative affects analysis, but certainly contribute to cumulative impacts to the planned Forest Plan Amendments as proposed in the Kew timber sale: The West Bend ROD (pg. 4) states: “Forest Plan Amendments: This decision includes non-significant and site-specific forest plan amendments as described in the FEIS pp. 46-50 and 472-477. First, the thermal cover objective of 30% for the Deer Habitat Management Area cannot be met because it is already below that. Thinning in the selected alternative will reduce it by 1%. The Rocket timber sale also has a Forest Plan amendment to reduce (or further reduce) cover below standards: “the thermal cover standard objective of 30% for the Deer Habitat Management Area cannot be met because it is already below that.” Yet the Kew analysis fails to fully and accurately disclose and assess other amendments and actions degrading needed wildlife cover and adversely affecting habitat across the greater project area. Again, these and other noted analysis deficiencies underscore that the USFS’s determination that its planned Kew Project Forest Plan amendments are not significant is arbitrary and capricious.

Resolution:

BMBP has raised these issues in our comments submitted to the scoping and draft EA periods. To resolve our objections regarding the planned violation of existing Forest Plan standards:

- * Drop all proposed project-specific Forest Plan amendments. This includes dropping the proposed Forest Plan amendments that would reduce hiding and thermal cover below Forest Plan standards, including dropping sale units that provide good hiding cover so that this Forest Plan amendment would not be required.
- * Drop the planned amendments concerning Scenic Views and Desired Visual Conditions. We request that the USFS also drop the proposed project-specific Forest Plan amendment to conduct prescribed burning on more than five acres as well.
- * Provide for more overall tree density and deer and elk cover—especially by dropping sale units in mixed conifer forests including cool moist, cold dry, and cool dry habitat and in microhabitat patches where greater density would naturally occur, such as at higher elevations, within riparian zones of influence, and on North to Northeast aspect slopes.
- * Drop sale units as necessary to avoid using the Forest Plan amendments for reducing elk hiding and thermal cover below or further below Forest Plan standards. See our survey sheets for assistance in identifying sale units actively used more by both elk and deer.

Below follows a brief summary of unit survey findings and recommendations regarding which units that must be dropped to better meet ecological objectives, including retention of old growth and mature forest structure, providing for the viability of forest species of concern, and providing for management actions that comport with the forest’s varying eco-zones including natural mixed conifer stands and old growth areas. See our survey sheets for further guidance as to the sale units that need to be dropped, under “wildlife sign” for sign of active elk and deer use of the sale unit, including elk and deer scat, tracks, and trails, and subjective evaluations, recommendations, and overall sale unit descriptions regarding assessment of the quality of sale unit elk and deer cover.

Drop units due to mature and old forest structure, natural mixed conifer, and/or wildlife habitat: 132, 14, 19.1, 211, 001, 125, 178 and 178.1, 261, 134, 032, 208, 24 and 025, 137, North half of 247;

Additionally, drop units to protect mature, old growth, natural mixed conifer, wildlife, and/or maturing forest structure (see substantive survey documentation):

181, SW corner of 068, 239, 242, 137, 007, west half middle and southern sections of 60 and 61, 112, 020, 006, South half of 029, top section of 240, 17, 27, 29 and 30;

Additional drop or NCT recommendations due to forest structure and/or wildlife presence (see survey documentation):

255, 255.1, 216.1, 227, 011.1, 216, North part of 234, 231, 058, 107, 251, 011, 014, Southeast half of 005, 029, 028, 149.3, 014, 235, 013.2, South part of 059, 116 and 116.1, 033, 004, 31, 5, 57, and 014.

Additionally, during negotiation on a similarly designed project, the Snow Fuels Project in 2008, the Objection was resolved through negotiations that both dropped units and parts of units, and implemented a 16" dbh limit to project old and mature forest structure and provide for wildlife habitat needs. In reviewing Kew units, it is clear that dbh limits ranging between 8" to 12" would work best for most remaining units (not on the drop list above), with a maximum 14" dbh cutting limit potentially on select areas rather than an across the project 16: dbh limit as agreed to in the Snow Fuels Project resolution.

Population Viability

NFMA also requires an agency to "provide for diversity of plant and animal communities based on the suitability and capability of the specific land area." 16 U.S.C.S. § 1604(g)(3)(B). The Forest Service has created regulations to carry out this mandate at 36 CFR 219.9 (2012). Under those regulations, the agency must ensure the ecological integrity of the plan area. 36 CFR 219.9(a) Furthermore, the agency "shall determine whether or not the plan components required by paragraph (a) of this section provide the ecological conditions necessary to: contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern within the plan area. 36 CFR 219.9(b)(1).

The Forest Service has legal responsibilities to protect the viability of Management Indicator species, but not to move forest structure toward a theoretical Historic Range of Variability (HRV) as an overriding goal. BMBP is concerned about the USFS's failure to ensure the viability of Management Indicator Species (MIS). The Kew EA has not demonstrated that the viability of Management Indicator and Sensitive species (MIS) would be ensured with project implementation. Species of concern for protection of viability included the following Management Indicator species: Pileated woodpecker, American marten, Black-backed woodpecker, American Three-toed woodpecker, Hairy woodpecker, Flicker, Primary Cavity Excavator woodpeckers, Northern goshawk, and Rocky Mountain elk. We are also concerned about failure to ensure viability of Sensitive and Threatened-listed species on the Forest, including Sensitive-listed plants. BMBP is also concerned about the viability of the populations of Lewis's Woodpecker, White-headed woodpecker, Townsend's Big-Eared Bat, Pallid bat, Fringed Myotis, Johnson's Hairstreak butterfly, Western Bumblebee, all bat species, all other Threatened, Endangered, and Sensitive species that use the area, and other Management Indicator Species. The Kew Project would occur in an intensively managed area with a lot of regular human disturbance. Further impacting this habitat will compound the stress experienced by these species. The DNF has not shown that it will comply with the above regulation to "maintain a viable population of each species of conservation concern." We remain concerned about migratory birds and other native species, including Olive-sided flycatchers. No commercial-size logging should take place in suitable primary goshawk habitat and PFAs, suitable marten habitat, suitable and active Pileated woodpecker habitat, and suitable

American Three-toed or Hairy woodpecker habitat, and no overstory canopy reduction should occur in these areas. No prescribed burning should take place in suitable habitat for Pileated woodpecker and American marten. Additionally, all project burning should avoid locations and seasonal time-periods where species of concern in the area would be adversely affected. The USFS should retaining mature and large trees that will soon to provide future large structure and thus meet the purpose and need of restoring large structure for associated wildlife, including MIS primary cavity excavators, Northern goshawk, and American marten, as well as focal species such as Great Grey owl. Please see our survey sheet priority drop sale units for these species, plus any additional known suitable habitat for these species in commercial logging sale units.

In the Kew EA's analyses for direct, indirect, and cumulative impacts to species in the Kew project, the DNF determines that there will be no significant or long-term negative impacts to multiple species despite widespread loss of habitat, acknowledgement of short-term negative impacts, potential mortality during project implementation, loss of nesting habitat, and other such issues. The DNF's conclusions that there will not be long-term or significant affects is repeatedly based on the faulty assumption that the analyses can jump from a project-wide scale of analysis to a forest-wide scale to make the impacts to species seem smaller. In addition, the Kew EA repeatedly asserts in its analyses regarding species viability that that because the Forest Plan is being followed, species viability will be ensured. However, with Kew as with other projects across the forest, the Forest Plan is not being followed – instead it is being amended to weaken or remove standards meant to protect wildlife and maintain forest objectives. In logging project after project for many consecutive years the DNF has followed a similar pattern, issuing Forest Plan amendments that weaken or remove ecologically essential protective standards, rendering such claims and conclusions arbitrary and capricious at best. Similar assertions have been made by the DNF across multiple projects, with the DNF coming to similar conclusions regarding a short-term negative trend in habitat but determining non-significance and declaring that species will remain viable despite a lack of evidence. The USFS cannot ensure that it is providing for viable populations of all vertebrate species if it is preparing inadequate cumulative impacts analyses. Since the analysis is flawed, the USFS cannot ensure compliance with the Forest Plan direction to protect MIS species viability.

We are concerned about the effects of gopher trapping on several species, including special-status species including MIS and ESA listed species. We are concerned about the loss of prey for those species, as well as the unintentional killing of other prey species (voles or other rodents) and the possible unintentional killing of the special status species themselves (particularly in relation to fisher and marten). In addition, we are very concerned about the use of herbicides such as glyphosate on species such as Bumblebees, Johnson's Hairstreak butterflies, and bat prey.

Across the Kew project and other project areas across the district and across the Forest, the USFS has widely targeted Grand fir for logging. This includes logging of large, mature, and old trees—in many cases regardless of ecological context. Grand fir is often preferred by many wildlife species and provides important habitat functionality. Many native species that rely on Grand fir dominant or co-dominant mixed conifer forests are in downward declines and losing habitat. The USFS efforts to continue to convert mixed conifer forests to Ponderosa pine dominant forests, regardless of ecological context, across the landscape, is misguided and not based on the full range of best science. The USFS is carrying out extreme logging of mixed-conifer habitats across the landscape, at an ever-increasing pace and scale, based on speculative and unproven outcomes. Indeed, the failure of the agency to assess the actual impacts of similar already concluded projects in this EA represents a significant failure to meet the requirements of the NEPA, as failure to do so leaves naught but speculative conjecture regarding project impacts when actual results of similar projects are otherwise readily

available to be assessed and disclosed instead. We are very worried that this will result in loss of viability and downward population trends for a host of species associated with Grand fir, mixed-conifer, and mature, dense, or complex forests. We are worried about such logging in the Kew sale as well as other sales across the landscape. We are extremely concerned about the lack of important retention areas in the Kew project. Retention areas throughout units provide important wildlife habitat, such as deer and elk hiding cover and thermal cover. In combination with the Forest Plan amendments to reduce cover below standards, the sterilized and unnaturally open forests that will result will not provide necessary habitat for numerous species. In addition, mini-clearcuts (“gaps”) and other such heavy logging within the Kew sale are likely to result in conditions such as tree plantations, lack of diverse and heterogenous conditions and habitats, and heavily impacted areas consisting largely of shrubs and Lodgepole pine.

BATS: The Townsend’s Big-Eared bat avoids clearcuts and regenerating stands. The Kew Project would create regenerating stands (clearcuts) and degrade or destroy a large percentage of available habitat for Townsends’s Big-Eared bat and other bat species. The Fringed Myotis requires old and mature trees for roosting habitat. Management activities that homogenize the forest impact this species. The Kew Project would remove trees up to 30” dbh, as well as those which are the next old and mature trees on the forest. The Kew project would also remove mistletoe, lodgepole pine, and fir, further homogenizing the forest. The Kew project’s selected alternative 2 would “impact the largest acres of bat foraging habitat at 6,818 acres (68% of the forested project area)” (FEA page 216). It would also create the largest acreage of openings (385 acres) and temporary roads (19 miles or 22.8 acres). In the USFS’s cumulative analysis for bats in the Lex sale, the Lex FEA acknowledges that “[c]umulatively, when the Lex project is added to the other projects... **approximately 27% of the potential bat roosting and foraging habitat in the watershed would be treated (46,593 acres).**” (emphasis added). Approximately 27% of potential bat roosting and foraging habitat in the watershed is a huge percentage of this watershed for a species. With impacts on at least a third of all bat habitats in the watershed, and 68% in the Kew Project area, how can the USFS ensure that these bat species will not experience population declines or a loss of viability?

The Kew FEA (pg. 217) states: “It is assumed that species presence would still occur within the project area regardless of which alternative is selected. Based on these impacts and the application of project design criteria, the determination for all action alternatives is MIIH - May Impact Individuals or Habitat but would not Likely Contribute to a Trend towards Federal Listing or Cause a Loss of Viability to the Population or Species for the Townsend’s big-eared bat, the pallid bat, and the fringed myotis.” It is not clear how or why the USFS has determined that the Kew project, with other nearby projects, would not cause a loss of viability or contribute to downward trends in species populations. Indeed, there is already an ongoing existent “Trend towards Federal Listing” and an ongoing loss of viability of these bat species – such is the reason they are “species of concern” throughout the region. As such, any additional loss or degradation of habitat, or harmful impacts to individuals, would incrementally contribute to an increased Trend towards Federal Listing.

What are the acreages and the percent of roosting and foraging habitat affected by all logging projects across the entire forest? The USFS has again switched the scale of analysis to include the percent of the affected habitat in the Kew project as compared to the forest scale, without taking into account all of the projects across the forest scale. The USFS’s declaration of continued viability rests on this faulty “analysis” which evades and obfuscates these significant issues rather than bringing the clarity and accuracy NEPA requires. It also rests on the non-analysis of asserting that the Kew sale is consistent with the Forest Plan. Such an assertion does not substitute for analysis, or provide evidence of species viability. Furthermore, the Kew EA notes that the project may “result in a small negative trend of

habitat and increased disturbance to the Townsend's big-eared bat". Given that the USFS has failed to properly consider the cumulative impacts to this species, it is likely that similar assertions across multiple projects have come to similar conclusions regarding a negative trend in habitat. With impacts on nearly a third of all bat habitat in the watershed, how can the DNF claim that these species will not be significantly negatively affected in the long-term?

Johnson's Hairstreak Butterfly and Western Bumblebee: A combination of herbicide use, logging, and other activities associated with the Kew sale and other adjacent and nearby projects will degrade and destroy habitat for Johnson's Hairstreak butterfly and Western Bumblebees.

The Kew EA failed to analyze the cumulative impacts of other projects on these species. Still, the DNF, without showing how, assumes that species viability will be maintained for these species. For example, the Lex EA disclosed that the Johnson's Hairstreak butterfly will lose at least a full half of its habitat in the Lex project. It is not clear in the Kew EA what percentages of Johnson's hairstreak butterfly will be lost at the project and watershed scales for this species.

In the Rocket FEA, the DNF discloses that the Western Bumblebee population has declined by 70%-100% since the 1990s (Rocket FEA pg. 161). The Rocket Project removed 57% of its habitat in the Rocket Project area (Rocket EA pg. 162). Proposed treatments have potential to disturb nesting bees and overwintering queens while reducing potential pollen and nectar sources. The Kew project, in combination with other projects in the area, will further degrade and destroy habitat across the watershed and forest for this species. What are the combined acreages and percentages of affected habitat, across forest as well as the watershed, due to the cumulative impacts of other past, ongoing, and reasonably foreseeable projects? The Kew EA determined that the Kew project may impact individuals or habitat (MIH), but would not likely contribute to a trend toward federal listing for the Western bumblebee or Johnson's hairstreak butterfly. The DNF does not show how the population will be maintained under those conditions, but still assumes that it will.

Marten: The Kew FEA states (pg. 279): "[c]umulatively, when the Kew project is added to the other projects, approximately 25% of the marten habitat in the watershed would be treated (9,034 acres)". This is a huge percentage of marten habitat in the watershed. It's not appropriate or legally justifiable to keep reducing Management Indicator species' suitable habitat (e.g. American marten) in timber sale 'project' after timber sale 'project', even after that species is considered vulnerable by the U.S. Fish and Wildlife Service-- which apparently applies now to American marten and Three-toed woodpecker, both of whom would have suitable habitat acreage reduced under the Kew project (as well as the Lex projects and numerous other projects in the area). The EA did not include adequate cumulative effects analysis as to all these reductions of suitable habitat across the Forest. It is also not justifiable to plan for continued impacts and cumulative potential loss of species viability for a Management Indicator species based on "long-term" theoretical re-growth of suitable habitat eventually, as the species' viability may be lost before the habitat can grow back—especially given likely planned similar timber sales in the same area in the future, and the 100+ years suitable large and old habitat structure would take to re-develop. The USFS should not be logging in marten reproductive habitat.

The Forest-wide scale is inappropriate for analyzing potential cumulative impacts from this project. In addition, if the USFS desires to analyze impacts at a larger scale, then projects throughout the entire forest as well as neighboring private lands need to be analyzed and quantified. To make a determination of insignificance, the USFS again uses only the Kew project's effect on marten habitat and compares it to the scale of the Forest to obfuscate the severity and magnitude of the cumulative effects to marten habitat. The Kew EA states in their determination

regarding significance (EA pg. 279): “Determination”... Treatments are proposed on 424 acres of the 669 acres of mapped suitable Pacific marten habitat within the project area. Although proposed treatments would result in a long-term reduction in marten habitat, on a landscape and Forest-wide basis, the effects of the proposed alternatives are minimal. Road and trail closure and decommissioning would reduce disturbance to any potential foraging or denning marten in the project area. ***Because this project impacts less than 1% of the suitable habitat across the Forest, the overall direct, indirect, and cumulative effects would result in a slight negative trend of habitat.*** The Kew Vegetation Management Project is consistent with the Forest Plan, and thus continued viability of the Pacific marten is expected on the Deschutes National Forest.” What are the acreages and the percent of marten habitat affected by all logging projects across the entire forest? Again, the USFS has switched the scale of analysis to include the percent of the affected habitat in the Kew project as compared to the forest scale, without taking into account all of the projects across the forest scale that have or will cause reduction of marten habitat in the recent past, the present, or the reasonably foreseeable future. The USFS’s declaration of continued viability rests on this faulty analysis, along with the non-analysis of asserting that the Kew sale is consistent with the Forest Plan. Such an assertion does not substitute for analysis as part of the determination, nor provide evidence of species viability. Given that the USFS has failed to properly consider the cumulative impacts to this species, it is likely that similar assertions across multiple projects have come to similar conclusions regarding a negative trend in habitat. With impacts on a quarter of marten habitat in the watershed, how can the DNF claim that these species will not be affected? Since the analysis is flawed, the USFS cannot ensure compliance with the Forest Plan direction to protect MIS species viability. The USFS cannot ensure that it is providing for viable populations of martens if the agency is operating under a flawed determination of non-significance. The USFS has failed to consider the cumulative impacts of other projects in resting its determination on the comparison of only the Kew project area to the Forest scale. We are very concerned about logging in wildlife connectivity corridors, for marten as well as for other species depended on such corridors. Logging these areas does not preserve vertical and horizontal complexity or lead to connectivity benefits for marten. The USFS states that “[t]hese treatments would have negative short-term (20-30 years) impacts due to a reduction in stand densities and canopy cover and down wood...” Since when is 30 years short-term?

Given the average age of Martens in the wild, being 8 to 10 years (Parker, 1990) or in another study 5 to 6 years (Strickland and Douglas, 1987), such a 30 year time-span involves from at best 3, to at worst, 6 generations or more of Martens – a significantly ominous period of time for negative impacts to run. Particularly given low and declining numbers of marten, such severe habitat loss and negative effects over three decades are very likely to result in long-term and significant negative effects and a loss of viability. USFS determination that the cumulative impacts to marten will be insignificant and only short term is arbitrary and capricious.

Pacific fisher: The USFS states in their determination that the Kew project will have ‘no impact’ on Pacific fisher: “[i]mplementation of any Action Alternative is expected to have No Impact (NI) on fisher. The project does treat within potential habitat, but not at the scale that would preclude use by fishers (i.e. 0.3% of mapped habitat). Habitat suitability would remain unchanged and the proposed actions would not contribute to the known threats of fisher” (FEA pg. 212). The Kew EA does not take into consideration the importance of maintaining Pacific fisher habitat. The Kew EA also dismisses the possibility that Pacific fisher occur in the Deschutes NF or in the project area, despite sightings of Pacific fisher within the recent past, and despite of the USFS’s poor track record of adequate surveys for such species.

The Lex FEA admitted that the potential effects of the Lex project on fishers include “[r]eduction of denning, resting, and foraging habitat; potential loss of snags and down wood; potential loss of individuals during denning period from logging activities; road closures and usercreated trail obliteration would reduce disturbance in suitable habitat.” It is not clear why the activities in the Kew project, which are very similar to the Lex project, would not affect fishers or their habitat.

The Kew EA has not adequately considered the importance of connectivity, particularly given the long-term destruction of fisher habitat. The Lex FEA is more forthcoming in their analysis. For further elucidation on this point: the Lex FEA states that “[m]apped denning, foraging, resting, and dispersal habitat occur in Lex (264 acres)”. The Lex project will log 15-20% of the available habitat in the project area, which is far above the threshold noted by the USFS: “Zielinski et al. (2013) found that forest management activities such as thinning, selection harvest and clear cutting did not exclude fisher use of an area at a threshold of approximately 2.6% of the habitat treated (more than 2.6% of habitat managed resulted in less fisher use and connectivity of habitat was important).” The Lex FEA notes that [a]ll alternatives would treat within areas that provide denning, resting, and foraging habitat. The removal of dwarf mistletoes trees, especially large white fir 20-29” dbh, coupled with thinning and fuels treatments that would reduce the amount of downed woody material and canopy closure (below the needed 60%) contributes to the reduction of habitat. Actions that would eliminate habitat would have long-term effects to habitat treated because it is expected a stand would not meet habitat definitions for more than 20 years. Logging of the project area, if done during the denning months of February through July, could disrupt this process and/or harm adults and/or young that may be within the dens.” The descriptions given in the Lex EA illustrates that there may be cumulative impacts to this species and its habitat from other nearby projects, such as the Kew project.

What is the total area (acres and percentages) of available fisher habitat cumulatively affected by past, present, and reasonably foreseeable future projects at the watershed and forest scales? Cumulatively, what is the effect of these projects on connectivity corridors for fisher?

The Lex FEA noted that “[f]ishers prefer closed-canopy (greater than 60%), late-successional forests with large physical structures (live trees, snags, and logs), especially if associated with riparian areas (Ruggiero et al. 1994, Csuti et al. 2001, Olson et al. 2014). Weir and Corbould (2010) found that fishers were limited by the openness of the stand; one reason being that escape cover (i.e. trees for climbing) are far apart making fishers further susceptible to terrestrial predators....they are associated with montane mixed conifer and riparian habitat (Olson et al 2014). Aubrey and Raley (2006) found in southwestern Oregon, fishers were found denning and resting at 4,000 feet elevation, more than 80% canopy closure, and more than 16 snags and 67 logs at least 20 inches dbh per acre. Denning and resting sites were also observed in large live trees (mostly Douglas-fir) with mistletoe brooms, limb clumping, rodent nests, or some other deformity. The fisher prefers to hunt in denser forest. Though an agile climber, most of its time is spent on the forest floor, where it prefers to forage around fallen trees” (Lex FEA). Logging in the Kew project will clearly have negative effects on potential fisher habitat as described above.

We are also very concerned about the impacts of “temporary” road construction in the Kew timber sale. The creation of roads opens up access to areas not previously accessed by motorized vehicles, bicycles, and foot traffic (not typically opened to the public, but do get used). We are concerned about the impacts these roads and road-related activities the project will have on fishers and other species, as well as other negative ecological impacts (such as spread of invasive weeds).

Sierra Nevada fox: The Sierra Nevada fox is ranked as Critically Imperiled, and has been sighted within and adjacent to the project area. Habitat for this species exists within the project area. The Kew

EA determined that there would be no impact to this species, and stated “Based on the best available information, we find that logging and vegetation management activities are not impacting SNRF, nor are they impacting habitat such that there would be effects to SNRF. Nor are they likely to do so in the future (within 50 years). Therefore, we conclude these activities are not stressors for the purposes of this evaluation” (FEA, pg. 218). Can the USFS please provide the citations and copies of the studies they consider the “best available information” that suggests that logging and associated activities will not impact Sierra Nevada Red Foxes?

The Lex FEA provided information regarding the habitat needs of the Sierra Nevada red fox that acknowledge potential negative impacts to the Sierra Nevada fox due to the logging and associated activities in the Lex project and other projects in the area. The Lex FEA stated that “[r]eduction of mature dense habitat; potential loss of individuals during denning period from logging activities; road closures and user-created trail obliteration would reduce disturbance in suitable habitat”, and details that “[m]ature, dense habitat would also be reduced by 28% - 39% depending on the alternative chosen.” The FEA (pg. 223, table 80) lists likely negative impacts to the fox from the Lex project as the “[r]eduction of mature dense habitat; potential loss of individuals during denning period from logging activities....” The FEA also notes that denning habitat, including currently active dens with pups, may be negatively affected by the Lex project. The FEA states (pg. 246) the “Potential Sierra Nevada Red Fox habitat acres impacted by tree and fuels treatments and road closures” includes between 28-34% of the fox’s mature and dense habitat, and 54-61% of potential nesting habitat. The table also notes road-related impacts that could negatively affect this species.

In the Kew EA, the USFS does not provide any sort of clear rationale for the ‘no impact’ determination, which appears to be completely arbitrary and capricious. The USFS also fails to analyze the cumulative effects of other past, ongoing, and reasonably foreseeable projects on this species and its habitat.

Goshawk and other accipiter hawks: The USFS has a responsibility to protect MIS species viability, including Goshawk. Goshawk are ranked as Vulnerable by NatureServe. Logging in the Kew project within Northern goshawk habitat would eliminate nesting habitat constituents. Nest stands “are typically composed of a relatively high number of large trees, high canopy closure (>50%), multiple canopy layers, and a relatively high number of snags and downed wood (USDA 2012)” (FEA pg. 231). The Kew project threatens to negatively affect species viability by removing 34-55% of Goshawk habitat in the project area, including nesting habitat. This is a huge amount of habitat loss for this species in the project area. Cumulative habitat loss across the watershed is also huge: the Lex FEA notes that “[c]umulatively, when the Kew project is added to the other projects (using Alternative 3 since it would treat the largest acreage), approximately 39% of the northern goshawk habitat in the watersheds would be treated (22,942 acres). How does the USFS then claim that there will not be significant and long-term negative effects to Goshawk? It cannot. Such determinations by the USFS are arbitrary and capricious, and based on faulty assumptions.

The Kew EA downplays the huge amount of habitat loss by again switching scales in an attempt to make the significance seem small, and continued viability of goshawk seem likely. The EA states as part of their “[d]etermination” section regarding significance of direct, indirect, and cumulative impacts: “[b]ecause this project impacts 0.5% of the suitable habitat across the Forest, the overall direct, indirect, and cumulative effects would result in a small negative trend of habitat. The Kew Vegetation Management Project is consistent with the Forest Plan, and thus continued viability of the northern goshawk is expected on the Deschutes National Forest.”

Again, the DNF's determination of continued viability for this species and only a "small" negative trend is based on the faulty assumption that it can jump from a project-wide scale of analysis to a forest-wide scale to make the impacts to species seem smaller, and also that simply declaring Forest Plan adherence will ensure species viability (despite faulty cumulative effects analyses, widespread habitat loss, potential mortality and loss of nests and nest success, and other similar issues). What is the total acreage and percent of Goshawk habitat cumulatively affected by all past, ongoing, and reasonably foreseeable projects across the Forest scale? The USFS cannot simply compare the Kew project area to the entirety of the Forest without considering the cumulative impacts of other projects at the forest scale. And, as with other analyses for species in the Kew EA, supposed Forest Plan adherence will not ensure species viability. Issues such as faulty cumulative effects analyses, widespread habitat loss, potential mortality and loss of nests and nest success, and other similar issues have not been adequately considered by the USFS.

Furthermore, the Kew EA admits that "[i]n addition to habitat alteration, threats from disturbance due to logging activities conducted near nests during the incubation and nestling periods can cause nest failure due to abandonment. Also, high road densities may result in loss of snag and down wood habitat important to goshawk prey (USDA 2012)" (FEA pg. 231). Such risks can easily have long-term and significant negative impacts on species viability and population trends, especially given the large percentage of habitat destroyed in this project and other projects across the watershed. The USFS has not shown that they will ensure species viability for goshawk. The USFS needs to drop all logging in Goshawk habitat, especially reproductive habitat.

Furthermore, we are very worried about loss of prey for this species due to gopher trapping and other activities within the Kew sale.

We have similar or the same concerns for Cooper's Hawk and Sharp-Shinned Hawk; all of our concerns discussed in this section for Goshawk generally apply to other accipiter hawks. For example, the Kew EA notes (FEA pg. 233): "[o]ngoing and reasonably foreseeable vegetation treatments in the North Unit Diversion Dam–Deschutes River and Fall River – Deschutes River watersheds would occur on approximately 21,800 acres of northern goshawk habitat." The FEA also discloses "Ongoing and reasonably foreseeable vegetation treatments in the North Unit Diversion Dam–Deschutes River and Fall River – Deschutes River watersheds would occur on approximately 18,480 acres of Cooper's hawk habitat and 24,657 acres of sharp-shinned hawk habitat. These treatments primarily include the following vegetation management projects: Rocket, West Bend, Junction, Lex and the UDR WUI. The primary treatments for all projects include: commercial thinning, mowing/mastication, and underburning. The Kew Project would treat approximately an additional 962 acres of the available Cooper's hawk and 1,191 acres of sharp-shinned hawk reproductive habitat in the watersheds depending on the alternative selected. ***Cumulatively, when the Kew project is added to the other projects, approximately 46% of the Cooper's hawk habitat and 40% of the sharp-shinned hawk habitat in the watershed would be treated (19,442 and 25,848 acres respectively)***" (emphasis added; FEA pg. 238).

The EA goes on to state that: "[t]he total amount of mapped nesting habitat acres within the Kew project for both species is no more than 0.7% of the entire amount of nesting habitat mapped on the Deschutes N.F.... Because this project only impacts up to 0.4% of the suitable habitat across the Forest, the overall direct, indirect, and cumulative effects would result in a small negative trend of habitat. The Kew Vegetation Management Project is consistent with the Forest Plan, and thus continued viability of both the Cooper's hawk and the sharp-shinned hawk is expected on the Deschutes National Forest. Any newly found nest would be protected by Resource Protection Measures. Although proposed treatments occur within mapped habitat for both the Cooper's and sharp-

shinned hawk, implementation of Alternatives 2, 3 or 4 would not lead to a trend towards federal listing for either. Therefore, the determination for the Kew project is small negative impact, continued viability is expected for the Cooper's hawk and the sharp-shinned hawk and their habitat on the Deschutes National Forest" (FEA pg. 239). Again, the DNF's determination of continued viability is based on the faulty assumption that it can jump from a project-wide or watershed scale of analysis to a forest-wide scale to make the impacts to species seem smaller, and also that simply declaring Forest Plan adherence will ensure species viability (despite faulty cumulative effects analyses, widespread habitat loss, potential mortality and loss of nests and nest success, and other similar issues). What is the total acreage and percent of habitat cumulatively affected by all past, ongoing, and reasonably foreseeable projects across the Forest scale? **The USFS cannot simply compare the Kew project area to the entirety of the Forest without considering the cumulative impacts of other projects at the forest scale.** And, as with other analyses for species in the Kew EA, supposed Forest Plan adherence will not ensure species viability. Issues such as faulty cumulative effects analyses, widespread habitat loss, potential mortality and loss of nests and nest success, and other similar issues have not been adequately considered by the USFS.

Wolverine: Wolverine are Imperiled-ranked species, and are notoriously shy of human disturbance. Yet the USFS has determined that the disturbance created by the Kew project-- including industrial logging, clearcuts, increased road density, and increased human access--will somehow not create an impediment to Wolverine dispersal or available habitat. Because wolverine are notoriously shy, they may not be readily detected. For example, agencies claimed for many years that wolverine were not present on the Wallowa-Whitman National Forest. Yet, wildlife cameras placed by an independent scientist and targeted towards detecting Wolverine were successful at finding Wolverine on the Wallowa-Whitman NF in a matter of months. In the Kew project, the USFS cites limited surveys from many years ago as evidence that Wolverine are not present in the Deschutes NF. Clearly, if the USFS has not completed more comprehensive surveys, they cannot claim wolverine are not present with confidence. Even if wolverine are not present within the area, wolverine have an enormous range, and may be negatively impacted by disturbance and loss of available habitat in a large area. In addition, the loss or degradation of available habitat outside of their current range, does not allow them to recolonize in their historical ranges, or to make progress to recovery in their historic ranges. The USFS gives no credible rationale for ignoring potential effects on wolverine. What are the acreages and percentages of Wolverine habitat that would be affected by Kew project and cumulatively by the Kew project in addition to other adjacent and nearby projects?

Pileated woodpeckers: The pace and scale of logging has increased across the region, with commercial logging in very large back to back and nearby timber sales across the DNF and the region. Yet Kew and other timber sales still largely seeking to greatly reduce Grand fir preferred by Pileated for foraging, and with increased targeting of large trees for removal, especially Grand fir needed by Pileated. **"Cumulatively, when the Kew Project is added to the other projects, approximately 6% of the pileated woodpecker habitat in the watershed would be treated (346 acres)"** (FEA pg. 248). Cumulatively, an affected six percent of Pileated woodpecker habitat in the watershed affected by logging is not a small or insignificant number. What is the USFS's biological basis for determining that six percent of habitat affected would not have long term or significant negative impacts, including a possible downward trend in population? Is there a specific threshold of habitat affected that the USFS deems to be significant for this species? The Kew Project also proposes to log in approximately 51 acres of the available reproductive habitat in the watersheds (depending on the alternative). The USFS should not be logging in Pileated reproductive habitat. The Kew EA claims that "[i]n the long-term, these combined treatments would favor pileated woodpecker habitat." However, the project seeks to reduce Grand fir and more complex and dense forest habitat in the project area. Pileated woodpeckers

prefer mature Grand fir forests, which this project will negatively affect and seeks to decrease as part of the goal of the project. The Kew EA's claims to benefit Pileated woodpeckers are not based on a sound rationale or credible evidence. The Kew EA goes on to state that "[n]one of the activities propose the removal of snags that would provide reproductive habitat, although a small number of snags could be lost during prescribed fire treatments; however, negative cumulative impacts are not expected." Next door in the adjacent Lex timber sale, the Lex FEA states: "Short-term negative cumulative effects could occur from the disturbance the proposed treatments would have on potentially nesting pairs within the watershed." These projects are very similar in their activities. Why would the Lex project admit to having negative cumulative effects, but apparently the Kew sale would not have any?

The Kew EA states that "[o]n a landscape and Forest-wide basis, the effects of the proposed alternatives are minimal. Because this project impacts 0.03% of the suitable habitat across the Forest, the overall direct, indirect, and cumulative effects would result in a slight negative trend of habitat" (FEA pg. 247). The EA goes on to state that: "[t]he overstory treatments, within MIS mapped pileated woodpecker habitat, are defined as shelterwood harvest (47 ac.), uneven-aged management/selection cut (3 ac.), and commercial thinning (1 ac). This amounts to about 26% of habitat in the project area, 0.8% of habitat in the project watersheds and 0.03% of habitat on the Deschutes NF." The EA also says: "[t]he Kew Vegetation Management Project is consistent with the Forest Plan, and thus continued viability of the pileated woodpecker is expected on the Deschutes National Forest" (FEA pg. 248).

Again, in the Lex EA's analyses for direct, indirect, and cumulative impacts to species in the Kew project, the DNF determines that there will be only small or insignificant negative impacts to multiple species despite widespread loss of habitat, potential mortality during project implementation, loss of nesting habitat, and other such issues. The DNF's conclusions that there will not be long-term or significant affects is repeatedly based on the faulty assumption that the analyses can jump from a project-wide scale of analysis to a forest-wide scale to make the impacts to species seem smaller. The Kew EA repeatedly asserts in its analyses regarding species viability that that because the Forest Plan is being followed, species viability will be ensured. Similar assertions have been made by the DNF across multiple projects, with the DNF coming to similar conclusions regarding a short-term negative trend in habitat but determining non-significance and declaring that species will remain viable despite a lack of evidence. The USFS cannot ensure that it is providing for viable populations of all vertebrate species if it is preparing inadequate cumulative impacts analyses. Since the analysis is flawed, the USFS cannot ensure compliance with the Forest Plan direction to protect MIS species viability.

The DecAID analysis does not adequately provide for the determination or protection of sufficient needed habitat. In addition, flushes of snags and areas well above Forest Plan standards for snags are necessary for maintaining biodiversity and providing adequate habitat for many species. Just because a watershed is above standards or tolerance levels does not mean that the USFS should be free to reduce snag numbers—watersheds should not be managed at the edge/baseline of standards.

Black-backed woodpecker: We are particularly concerned by the status of the Black-backed woodpecker on the Deschutes National Forest because it seems to be more rare than on the other (Blue Mountain province) eastern Oregon forests we field survey, and may be an isolated subspecies in decline.

The Kew FEA acknowledges (pg. 252) that "[c]umulatively, when the Kew is added to the other projects, approximately 30% of the black-backed woodpecker habitat in the watershed would be treated (15,559 acres)." However, the Kew EA then goes on to minimize this impact by concluding

that: “[o]n a landscape and Forest-wide basis, the effects of the proposed alternatives are minimal. Because this project impacts 0.3% of the suitable habitat across the Forest (Table 89), the overall direct, indirect, and cumulative effects would result in a slight negative trend of habitat. The Kew project is consistent with the Forest Plan, and thus continued viability of the black-backed woodpecker is expected on the Deschutes National Forest.” Again, the DNF’s conclusions repeatedly seem to be based on the faulty assumption that it can jump from a project-wide scale of analysis to a forest-wide scale to make the impacts to species seem smaller. Also, as with other analyses for numerous species in the Kew EA, the USFS has failed to properly consider the cumulative impacts to this species. Furthermore, concerning the assertion that because the Forest Plan is being followed, species viability will be ensured: it is likely that similar assertions across multiple projects have come to similar conclusions regarding a negative trend in habitat. Since the analysis is flawed, the USFS cannot ensure compliance with the Forest Plan direction to protect MIS species viability. The USFS cannot ensure that it is providing for viable populations of all vertebrate species if it is preparing inadequate cumulative impacts analyses. The Lex project acknowledges that along with the Rocket, West Bend, Junction, Kew, and UDRI WUI Vegetation Management Projects, “the Lex Project may result in short-term negative cumulative effects to the black-backed woodpecker. This would be due to impacts from the potential disturbance/loss of individuals during project activities and the loss of larger acreages of older lodgepole pine habitat in the watersheds from treatment activities, with long-term benefits to future habitat.” It is not clear why the Kew project did not come to or disclose similar cumulative effects, even though it is an adjacent project with very similar cumulative effects analyses and considerations.

What is the percent of Black-backed woodpecker habitat affected by all past, ongoing, and reasonably foreseeable projects on the entire forest? What was the historic percentage of Black-backed woodpecker habitat across the entire forest? Since this species has suffered alarming declines, particularly in the Deschutes NF, it would follow that it is suffering from habitat losses from numerous large timber sales that seek to decrease the very habitat this species depends upon. The Lex FEA also noted that “it has been decades since a stand replacement fire has occurred within the project area. Any habitat being utilized within the project area is from mountain pine beetle outbreaks and other insect and disease factors.” Black-backed woodpeckers are native to eastern Oregon, yet are suffering loss of habitat due to logging and fire suppression. The region, including the Kew project area, historically included mixed-severity fire, including high-severity patches. The Kew EA attempts to use the rationale that Black-backed woodpeckers will be benefited in the long term by the habitat created by the project. However, the Lex project seeks to promote conditions that preclude the success of Black-backed woodpeckers. For example, the Lex EA states that: “[t]he project promotes fuels reduction and forest health in the short-term and in the long-term promotes the longevity of large tree structure and a fire resistant landscape. Smaller snags would most likely be removed in lodgepole pine stands proposed for treatments where the snag numbers are higher than Forest Plan Standards and Guides recommendations”. Black-backed woodpeckers are closely tied to and dependent upon stand replacement fires, and areas with high density of smaller diameter snags, both of which this project minimizes and removes from the landscape.

The Kew EA notes: “Black-backed woodpeckers are highly associated with stand replacement fire and local irruptions may occur after fire or insect outbreaks (Dudley and Saab 2007). Saab et al. (2004) found black-backed woodpeckers rapidly colonize stand replacement burns within 1-2 years post-fire but are rare within 5 years which may be due to a decrease in prey of larval bark and wood boring beetles.”..... “High density burned stands may provide greater foraging opportunities as this species feeds primarily on bark and wood boring beetles (Harris 1982, Saab et al 2002, and Saab et al 2004). Black-backed woodpeckers selected moderate to heavily burned trees where beetles were very abundant (Murphy and Lehnhausen 1998)” (Kew FEA pg. 248). Older stands of lodgepole pine also

provide habitat needed by this species, and having larger blocks of these habitats (>300 acres) is beneficial (Lex FEA). “In a study conducted on the Deschutes National Forest, Goggans et al. (1989) suggested management for black-backed woodpeckers is tied to the maintenance of decay and disease. Goggans et al. (1989) reported all nests in the study on the Deschutes were found in lodgepole pine trees and 89% of these nests were located in lodgepole pine stands with the remaining nests found in mixed conifer stands dominated by lodgepole pine” (Kew EA pg. 250).

Despite the description of habitat needs for this native and declining species, the Kew project EA has failed to explain how the Kew project will not cause long-term and significant impacts to this species, particularly given that the Kew project and numerous other projects in the area seek to decrease the very habitats essential to this species. Since purpose and need of the project runs contrary to the habitat needs of Black-backed woodpeckers (such as dense snag forests and post-fire habitats created by high intensity fire, and older Lodgepole pine forests). The USFS cannot claim that the outcome trajectory of logged stands will include providing habitat for Black-backed woodpeckers. Even if these stands are left long enough to provide suitable habitat for Black-backed woodpeckers, the USFS in the meantime has removed huge tracts of necessary habitat, as well as caused nest failures and direct mortality in this and other projects in the area.

We are very concerned about degradation and elimination of Black-backed woodpecker habitat in the Kew project and other nearby or adjacent projects. For example, overstory treatments in Lodgepole pine stands may remove all nesting and foraging habitat within these areas. “Salvage” logging of Lodgepole pine would also degrade or eliminate habitat in these areas. If logging occurs during the breeding season, loss or failure of nests, mortality, or other negative impacts to nesting woodpeckers may occur. Multiple nest failures could have long-term negative impacts on this species and result in significant population declines and loss of viability. Logging may take place during the breeding season. Areas where piling or other similar activities occur would destroy or degrade the dead wood habitats which are important to this species.

Hairy woodpeckers: We have similar concerns for the Hairy woodpecker regarding loss of habitat, improper scale of analysis, and the USFS’s arbitrary and capricious determination that Hairy woodpeckers will not be significantly affected in the long term. As above for Black-backed woodpeckers (and other species that the USFS has given similarly faulty analyses), our concerns apply to Hairy woodpeckers as well.

The Kew FEA (pg. 260): “[o]ngoing and reasonably foreseeable vegetation treatments in the North Unit Diversion Dam–Deschutes River and Fall River – Deschutes River watersheds would occur on approximately 36,193 acres of hairy woodpecker habitat. These treatments primarily include the following vegetation management projects: Rocket, West Bend, Junction, Lex and the UDR WUI”.... “The Kew project would treat an additional 3,245 acres of the available reproductive habitat in the watersheds depending on the alternative. **Cumulatively, when the Kew project is added to the other projects, approximately 50% of the hairy woodpecker habitat in the watershed would be treated (39,438 acres)**”. Again, this is a huge amount of the available habitat at the watershed scale.

In their determination of significance, the USFS goes on to downplay impacts to this species through comparing the impact at the project scale to the forest scale and dismiss the possibility of negative impacts on habitat trends, without considering cumulative impacts across the forest. The Kew FEA (pg. 261) states: “[o]n a landscape and Forest-wide basis, the effects of the proposed alternatives are minimal. Because this project impacts 0.4% of the suitable habitat across the Forest (Table 100), the overall direct, indirect, and cumulative effects would result in a slight negative trend of habitat. The Kew Vegetation Management Project is consistent with the Forest Plan, and thus continued viability of

the hairy woodpecker is expected on the Deschutes National Forest.” The DNF’s conclusions repeatedly seem to be based on the faulty assumption that it can jump from a project-wide scale of analysis to a forest-wide scale to make the impacts to numerous species seem smaller, and that simply declaring Forest Plan adherence will ensure species viability (despite faulty cumulative effects analyses, widespread habitat loss, potential mortality and loss of nests and nest success, and other similar issues).

The Lex EA (pg. 326) acknowledged how some project actions may negatively affect key habitat needs for hairy woodpeckers: “Hairy woodpeckers have been shown to prefer unlogged areas, so they may select the areas within the project area that are not proposed for logging.... Other actions that impact hairy woodpeckers include the removal of large white fir with mistletoe (20-30” dbh) and thinning. Both actions have the potential to remove future nesting, and perhaps current foraging habitat....” The Kew EA was not as transparent about such admissions.

Other woodpeckers and PCEs: We have the same or similar concerns for other woodpeckers and PCEs as we do for the above woodpecker species. Furthermore the near and mid-term viability of MIS PCEs will not benefit from long-term snag increases if the species lose their viability sooner from lack of snag structure.

Resolution:

BMBP has commented on its objection to the DNF’s failure to provide for viability of native species and of Management Indicator and other species in the Kew project. In order to resolve our objection, we respectfully request:

- * Drop the units and include the changes as noted in the previous resolution sections above;
- * Drop all logging proposed in mature and old forest areas;
- * Drop logging in mixed conifer forest areas;
- * Drop logging in areas that have not previously been logged or have been only minimally logged;
- * No commercial-size logging in suitable primary goshawk habitat and PFAs, suitable marten habitat, suitable and active Pileated woodpecker habitat, and suitable American Three-toed woodpecker habitat; with no overstory canopy reduction in these areas;
- * No log and snag reduction in suitable and active American marten and Pileated woodpecker Habitat;
- * Drop all commercial-size logging in known and potential wildlife connectivity corridors. We want the Forest Service to drop all commercial logging and non-commercial thinning in connectivity corridors, as it defeats the purpose of leaving denser areas to allow for movement of old growth-associated wildlife species, as well as native ungulates using these areas as security cover, and to provide greater habitat security in these areas compared to intensively managed stands outside these corridors;
- * No prescribed burning of suitable habitat for Pileated woodpecker and American marten;
- * Drop all commercial logging, noncommercial thinning, and prescribed burning within any undeveloped lands;
- * Drop planned “temporary” roads as these often remain on the landscape and increase access for illegal firewood (often large snag) cutting and fur trappers, and reduce re-opening of closed roads;
- * Road density should be reduced to at least the Forest Plan standards and objectives for elk;
- * Drop any commercial logging in not only known goshawk PFAs, but in any other goshawk activity centers (nests and PFAs) discovered;
- * Drop the planned logging of large trees;

*Significantly scale back the re-openings of roads, and cancel the building of temporary roads (even if this means dropping associated units);

* We ask for a lower dbh limit for logging, such as 16-18" dbh, depending on the tree species. We want this to apply to the entire timber sale. This is important for retaining mature trees soon to provide future large structure and thus meet the purpose and need of restoring large structure for associated wildlife, including MIS primary cavity excavators, Northern goshawk, and American marten, as well as focal species such as Great Grey owl. In a previous Objection to the Snow Fuels Project, the objection was resolved by a 16" dbh cutting limit across the entire project, in addition to dropped units and/or portions of units and other ecologically needed changes.

Please see our survey sheet priority drop sale units for these species, plus any additional known suitable habitat for these species in commercial logging sale units.

Soils:

We are very concerned that the Kew project will violate Forest Plan standards for soil disturbance. The Kew project area has experienced widespread cumulative soil disturbance due to road related activities, recreation, and past logging. Many units are already at the upper limit for soil disturbance conditions; proposed actions in the Kew project will likely increase their disturbance condition. Logging, especially heavy logging such as clearcuts with seedtree reserves and overstory logging, in addition to road-related activities will almost certainly increase the soil disturbance beyond Forest Plan standards.

Roads:

Particularly given the run-away problems the DNF has with high road densities, user created roads, undocumented roads, roads they can't afford to maintain, and other similar road-related issues causing mass ecological problems across the landscape—under no circumstances should the USFS be building 19 miles of "temporary" roads. Proposals to increase road density and disturbance through building "temporary" roads should be dropped, particularly where they overlap with Northern spotted owl dispersal habitat or areas important for elk. The ecological benefits that are provided by areas with less road density will be degraded by increasing fragmentation through road building. Mapped spotted owl dispersal habitat also reflects areas where forests are likely serving as habitat and connectivity for species such as Pacific fisher, marten, goshawk, elk, and others. Many species that may utilize similar habitat to spotted owls are also sensitive to disturbance and fragmentation. Creating temporary roads in these areas will negatively affect these species. Road density should be reduced to at least the Forest Plan standards and objectives for elk.

It is extremely disingenuous for the USFS to claim that the affects of temporary roads or road re-openings will be short-term or conclude with project activities. Road rehabilitation is often not followed through on, especially not in a timely fashion, and has a host of associated negative ecological affects (edge effects, increased human disturbance, decreased snag densities, increased invasive plant species, altered hydrological patterns, increased fire severity, etc.). We all know "temporary" roads are never actually temporary. The USFS losses credibility when they make such clearly false claims.

Recreation:

We are very concerned that the Kew project will negatively impact the scenic and recreation values and experiences in the Kew project. We ask that the USFS drop logging in areas overlapping with trails, as well as those designated under the Forest Plan to be managed for scenic views. We are

opposed to site-specific Forest Plan amendments such as those used to decrease scenic values below Forest Plan standards, and we do not feel that the USFS has provided a sound or legally appropriate rationale to justify the use of these site-specific amendments.

Resolution:

BMBP has raised these issues in our comments submitted to the scoping and draft EA periods. To resolve our objections:

- * Drop all “temporary” road building. Under no circumstances should the USFS be increasing the road density on the DNF;
- * Drop all logging on steep slopes and on unstable ground (such as those greater than 30%), sensitive soils, cold air basins, or frost pockets;
- * Drop logging along recreation trails and near high-use recreational areas.

Endangered Species Act (ESA)

The KEW sale proposes logging in Northern spotted owl dispersal habitat with a Critical Habitat Unit. Logging as proposed in the preferred action alternative would eliminate the majority of dispersal habitat in the project area, and severely degrade the current habitat value, and impede connectivity and dispersal. Dispersal habitat is crucial for connectivity between blocks of nesting habitat, and is important for the movement of young spotted owls away from nests and for adults moving from one territory to another. If dispersal habitat is degraded, nearby NFR habitat and Critical Habitat Units will not meet the needs of the species or contribute to recovery as effectively.

The Kew project area lies almost entirely within a Critical Habitat Unit. Protecting dispersal habitat in order to maintain connectivity between Nesting, Roosting, and Foraging Habitat areas, and between neighboring CHUs is crucial to Northern spotted owl recovery in the area. The Lex timber sale EAs noted the important function of dispersal habitat. The Lex DEA notes: “dispersal habitat provides important linkage function among blocks of nesting habitat both locally and over the owl’s range”. The Lex FEA (pg. 202) noted that “[d]ispersal habitat is important for the movement of spotted owl young away from natal areas or adults moving from one territory to another or between Critical Habitat Units”. The Lex sale is directly adjacent to the Kew sale, and includes extensive elimination of spotted owl dispersal habitat. Despite this recognition of the critical importance of dispersal habitat, the Lex EA acknowledged that logging in the Lex project would reduce dispersal habitat and reduce connectivity for Northern spotted owls. The FEA further acknowledges that “[c]umulatively, when the Lex Project acreage is combined with the other projects (an additional 4%), approximately 20% of the northern spotted owl dispersal habitat in the watersheds would be treated (7,050 acres)” (FEA pg. 217).

The Kew EA provides a slightly smaller figure of the total spotted owl dispersal habitat that would be eliminated. Kew FEA (pg. 192): “[o]verall, approximately 8,186 acres (18%) of the total spotted owl dispersal habitat within the analysis area watersheds, or 3% of the total dispersal habitat on the Deschutes NF would be removed by the four listed projects”. These are very large figures for the loss of dispersal habitat—3% of habitat across the forest may well have significant and negative impacts, as would the loss of 18% of NSO dispersal habitat across the watershed. The Forest Service offers no rational explanation, biological thresholds, or compelling evidence to suggest that the loss of 18% (or 20%, as described in the Lex sale) of dispersal habitat in the watersheds (or 3% across the forest) will not create a barrier to spotted owl movement across the landscape, or would not have a significant, long-term, and negative effects on spotted owls and their habitat. Furthermore, does the USFS include the other projects that would degrade or eliminate Northern spotted owl habitat, including dispersal habitat, at the forest scale? Or has the USFS, yet again, compared a small area of impact to the large

forest scale, without including impacts relevant at the larger forest scale? In addition, it is not entirely clear why the Lex and Kew EAs include different figures of the total dispersal habitat eliminated in the watershed analysis area, despite being within the same watershed (see USFS table from the Kew FEA below). We request that the USFS provide maps with watershed delineations as well as the projects included in the cumulative impacts analysis. In addition, including visual or at least quantitative figures of how much NSO habitat was (or will be) removed in those projects is also requested. Such information would allow for more transparent and clear public understanding of the analysis.

BMBP, in reviewing USFS NEPA documents for timber sales, found that between approximately 5.3 and 6% of the Northern spotted owl habitat across the Deschutes National Forest have been lost or are in the process of being logged and destroyed within 10 recent timber sales within the past 10-12 years. These are the recent timber sales which we can find documentation for; there are likely many other sales which should be looked at in a cumulative impacts analysis in an EIS.

BMBP calculated the 5.3 – 6% NSO dispersal habitat loss based on the following information:

- Green Ridge: Approximately 1,217 acres of NSO dispersal habitat would be lost due to logging (in scoping). This is similar to the 1,258 acres of dispersal habitat the Lex FEA will be logging in dispersal habitat, and which the USFS determined was approximately 0.5% of the suitable dispersal habitat at the forest scale.
- Ringo: The USFS simply notes that the Ringo project would treat less than 1% of NSO dispersal habitat at the forest scale (Ringo FEIS pg. 169). However, the 1,467 acres of NSO dispersal habitat that would be ‘treated’ is also very similar to the 1,258 acres of dispersal habitat lost in the Lex FEA, so this is likely equivalent to roughly another 0.5% of dispersal habitat lost at the forest scale.
- Kew: 1% of dispersal habitat would be lost at the forest scale due to this project (Kew FEA pg. 185 and 187)
- Lex: The Lex FEA states that 0.5% of dispersal habitat would be lost due to logging in the Lex project; the Lex Wildlife Report states this figure as 0.4%.
- Ursus: For the Ursus timber sale, the 0.4% according to Kew DEA (pg. 19) states that 0.4% of dispersal habitat would be lost; the Ursus FEA reports that figure as 0.6% (pg. 126-127).
- The Melvin Butte EA states that 0.6% of dispersal habitat would be lost at the forest scale due to logging in this project.
- West Bend: For the West Bend sale, the Kew DEA (pg. 193) states that 0.8% of NSO dispersal habitat would be lost; this figure is 0.3% according to the Ursus FEA (pg. 126-127).
- EXF: The language in the EXF analyses are confusing, and do not seem to say what percentage of dispersal habitat will be lost or degraded at the forest scale due to this project. It is further not clear if the ‘degraded’ dispersal habitat in this project would still be classified as ‘dispersal’ post-project. It seems that in the EXF project, 533 acres would be destroyed and another 1,402 would be degraded to non-functional, which would equate to 1,935 acres. This figure (1,935 acres is somewhat similar to the Lex project’s 1,258 acres that the USFS determined to be 0.5% of the available dispersal habitat across the forest. The Kew EA does not seem to take several of these and other projects into account in its cumulative effects analysis.
- West Tumbull: N/A, the USFS does not seem to say how many acres would be affected or at what percent of the forest.
- Five Buttes: USFS does not seem to say what percentage of dispersal habitat would be lost due to this project at the forest scale. But in Kew timber sale, 3,221 acres of NSO dispersal habitat would be lost, and the Kew FEA states that this equates to approximately 1% of dispersal habitat on the

forest. This is extremely similar to the 3,254 acres of dispersal habitat that the USFS admits will be lost in the Kew sale (ROD pg. 20; Five Buttes FEIS pg. 35). The Five Buttes sale actually seems to include 4,429 acres of logging in dispersal habitat, but it is unclear from the analysis how all of these 4,429 acres of dispersal habitat will be classified after logging (Five Buttes FEIS pg. 113).

Our figures do not include USFS timber sales for which we were unable to find NEPA documents, such as the Snow timber sale. Also, our tally includes an incomplete list of sales for only the past 10 years. In reality, NSO dispersal habitat will take much longer to recover and become dispersal habitat again after logging, and so the overall tally of cumulative impacts should include sales within a much longer timeframe, such as 30-40 years previous.

USFS table showing % of dispersal habitat eliminated across the analysis watershed, and additional cumulative impact information:

Table 50 Summary of the cumulative reduction of spotted owl dispersal habitat.

	Kew	Lex	Ursus	West Bend
Within CHU?	Yes	No	No	Yes
Acres of Dispersal Habitat Removed	3,216 Alt. 2 (most) (3,114 within CHU)	1,460 Alt. 3 (most)	1,141	2,369 (28 within CHU)
Percent Reduction of Dispersal Habitat within the Analysis Watersheds (45,425 acres total)	7% (North Unit Diversion Dam-Deschutes River and Fall River-Deschutes River)	3% (North Unit Diversion Dam-Deschutes River and Fall River-Deschutes River)	3% (Tumalo Creek)	5% (North Unit Diversion Dam-Deschutes River and Tumalo Creek)
Reduction of Dispersal Habitat (%) on the Deschutes National Forest (295,110 acres – Feb 2016 Baseline)	1%	0.5%	0.4%	0.8%

Because there are no direct or indirect effects to the spotted owl NRF habitat, there would be no cumulative effects to NRF habitat as a result of the proposed actions under either action alternative.

The Kew EA states that “[a]ll overstory treatments would reduce the stand canopy cover to below the dispersal habitat thresholds which would result in a reduction of dispersal habitat. Although there would be a reduction of dispersal habitat in the project area, this would not likely cause a barrier to movement due to the no treat areas within the project boundary, including the designation of the dispersal corridor. These areas provide a linkage between the Sheridan LSR to the south and the roadless area to the northwest” (FEA pg. 192). However, maps and satellite images of the Kew project area tell a different story. The remaining dispersal habitat in the Kew area will be severely reduced if logging goes through as proposed, and the EA cannot logically claim on the one hand that dispersal habitat is important for movement and connectivity, but then say on the other hand that the removal of a very large and obviously significant portion of this habitat will not create a barrier to spotted owl movement. It is clear from the dispersal-related maps in the Kew EA that the elimination of vast portions of dispersal habitat leave areas of Nesting, Roosting, and Foraging much more isolated, and in some areas completely unconnected.

**Kew Project
Spotted Owl Dispersal Habitat
Current Condition**

**Kew Project
Spotted Owl Dispersal Habitat
Post Treatment**

Legend:
 - New Forest
 - Spotted Owl Habitat

Scale: 0 5 10 Miles

Kew
NSO
Dispersal Corridor

15 Miles

0 3 6 9 12 15 Miles

Legend:

- Water
- Wetland/Forest/Grassland
- Developed/Commercial/Industrial
- Forest/Grassland
- Wetland/Forest/Grassland
- Wetland/Forest/Grassland

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the designated Old Growth management area located in the central and eastern portion of the Kew project would leave this NRF habitat completely fragmented and isolated. Given that this is an Old Growth area with a stream corridor, this habitat block could provide a relatively contiguous area of important high-quality habitat.

Much of the dispersal habitat in the lower two thirds of the project area would also be destroyed, despite its proximity to two nearby NRF habitat areas adjacent to the project area to the west. Rather than fragmenting NRF areas within or adjacent to the project, the USFS should be enhancing connectivity in order to provide for NSO recovery. A CHUs should be managed to enhance CHU habitat, not create edges and fragmentation that degrade the suitability or habitat functions of those CHU blocks.

Dispersal and connectivity that is integral for CHUs to function as intended for NSO recovery. The USFS also does not seem to be taking into account the quality of the NSO habitat in its analyses, and does not account for the degradation of the quality or effectiveness of dispersal habitat, or the effects of this degradation and loss on NRF habitat within the project area or in relation to other projects. The USFS does not seem to be taking into account the fragmentation of nearby forests. Not only does fragmentation interrupt dispersal and connectivity, it also makes it more likely that corvids, Barred owls, and other predators will pose threats to spotted owls through competition, harassment, and predation, and that other negative effects from fragmentation will affect the spotted owls. The loss of dispersal and connectivity impairs the ability of the CHUs to function fully or provide for NSO recovery. The loss of dispersal and connectivity due to logging will affect NRF habitat, and the quality and functionality of CHUs. In addition, if spotted owls are to recover, dispersal habitat should be allowed to recover and grow into NRF habitat. For example, in discussing nearby NSO habitat, the Lex FEA notes that: “[s]pecial management considerations or protection are required in subunit ECN 9 to address threats from current and past timber harvest, losses due to wildfire and the effects on vegetation from fire exclusion, and competition with barred owls. This subunit is expected to function primarily for demographic support to the overall population, as well as north-south connectivity between subunits and critical habitat units. It was determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criteria that calls for the continued maintenance and recruitment of northern spotted owl habitat. The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl” (FEA pg. 207). Unfortunately, instead of prioritizing NSO connectivity between subunits, the expansion of habitat, or other special management considerations, the Kew, Lex, and other nearby projects are literally selling off NSO dispersal habitat for monetary value at the expense of NSO recovery. Despite the loss of a significant portion of spotted owl dispersal habitat and loss of connectivity in the Kew project and in combination with nearby projects, as well as the loss of NRF habitat in other nearby projects (such as the adjacent Lex project), and the loss of future NRF habitat through the destruction of current dispersal habitat, the Kew EA dismisses the possibility of significant or long-term negative effects. The USFS determination is that the project “May affect but would not likely adversely affect the northern spotted owl”. The EA fails to provide any clear or logical rationale, or give provide evidence as to why spotted owls will not be significantly negatively affected in the long term. It is not clear why consultation was not required with the US Fish and Wildlife Service, given the significant direct, indirect, and cumulative impacts to Northern spotted owls and their habitat as proposed by this project.

Logging is a greater threat to Northern spotted owls than wildfire. For example, in the study *Effects of Fire and Commercial Thinning on Future Habitat of the Northern Spotted Owl* Odion et al. (2014) state: “Using empirical data, we calculated the future amount of spotted owl habitat that may be

maintained with these rates of high-severity fire and ongoing forest regrowth rates with and without commercial thinning. Over 40 years, habitat loss would be far greater than with no thinning because, under a “best case” scenario, thinning reduced 3.4 and 6.0 times more dense, late-successional forest than it prevented from burning in high-severity fire in the Klamath and dry Cascades, respectively. Even if rates of fire increase substantially, the requirement that the long-term benefits of commercial thinning clearly outweigh adverse impacts is not attainable with commercial thinning in spotted owl habitat. It is also becoming increasingly recognized that exclusion of high-severity fire may not benefit spotted owls in areas where owls evolved with reoccurring fires in the landscape.”

Northern spotted owls and mistletoe: Dwarf mistletoe is native to the region, has evolved in concert with forest in Oregon and across the region, and serves important ecological functions. Mistletoe creates complex habitat structures, such as brooms and irregular growth patterns that support nests and other uses for wildlife. Diversity is fostered through habitat heterogeneity. Mistletoe serves a critical role in creating this particular and necessary aspect of heterogeneity in forest structure. In addition, mistletoe provides important forage and cover for wildlife, including for species such as porcupines and squirrels, other mammals, and insects. Mistletoe spreads very slowly, and tree mortality in trees with mistletoe may take decades. This creates an opportunity for additional heterogeneity, with trees experiencing many categories of nuanced growth patterns in many different size and age classes. Mistletoe dynamics in forests also provide for snag recruitment, including different sizes of snags and trees and snags unique growth patterns. Mistletoe provides for a nesting, roosting, cover, and forage both directly and through other processes and functions in its ecological roles in forests. Mistletoe is not a threat to the ecology of conifer forests in the Deschutes National Forest or in the region. Mistletoe is, however, disliked by silviculturalists due to economic reasons, as mistletoe-infected trees do not grow as straight and tall, and can negatively impact the monetary value of trees. However, it is important to note that agencies managing public lands should not be managing for the high growth rates for commercial logging projects. The agency has an obligation to protect a wide range of ecological processes and functions, and to provide for ecological integrity that supports sustainable and viable populations of native species. Logging based on a rationale of treating mistletoe runs counter to truly restoring or protecting the ecological processes and functions of these forests, and does not allow for the creation of habitat heterogeneity necessary for many species, including listed, special-status, at-risk, and other native species. In addition, it is not effective to log in order to control mistletoe. Thinning does not successfully eradicate mistletoe in a forest stand, as many, many trees throughout the stand may be infected, and may not show obvious outward signs. In fact, logging exacerbates the spread of mistletoe and the vulnerability of remaining trees to infection. This is especially true in combination with other land management impacts such as grazing, road-related impacts, and fire suppression (including fire suppression activities such as thinning that favor non-stand-replacing fires in areas that historically had stand-replacing fire regimes).

Northern spotted owls often nest on mistletoe brooms. Attempts to control mistletoe in the Kew project, in addition to the Lex and other area projects, may in fact harm habitat and habitat recruitment for Northern spotted owls. Flying squirrels, the preferred prey of Northern spotted owls, also rely on mistletoe brooms. Degrading and destroying mistletoe- created habitats may directly, indirectly, and cumulatively harm both spotted owls and their prey. Other listed and at-risk species may also depend on mistletoe brooms, but this aspect of forest ecology was severely downplayed in the Kew EA. We request a more scientifically accurate analysis that includes best available current science.

The Kew EA proposes logging as a strategy to manage mistletoe. However, managing a forest to reduce mistletoe precludes maintaining the adequate wildlife structures and habitats associated with mistletoe. Attempts to reduce mistletoe in the project area will not allow for natural levels of mistletoe

occurrence that forest species and healthy forests rely upon. In areas where mistletoe may be more common, cumulative impacts associated with logging will simply increase mistletoe prevalence. The USFS provides no biological justification or rationale to determine if attempts to reduce mistletoe will also maintain adequate habitat for species such as Johnson's hairstreak butterfly, Northern spotted owls, or other species that nest in or otherwise rely on mistletoe brooms. The USFS simply assumes that because other habitat exists elsewhere, species' viability will not be affected. However, the USFS offers no analysis on quality or quantity of nearby habitat, natural barriers to dispersal or habitat use, cumulative effects of various logging projects on nearby habitat, and ignores many such other important considerations.

Logging can exacerbate mistletoe infestations, and increase the rate of spread. Logging in relation to mistletoe is unnecessary (mistletoe is a natural part of healthy forests), misguided (logging will degrade wildlife habitat, and cause many unintended negative impacts), and is not effective (it won't stop, slow, or control mistletoe). The risk to these forests and to species' viability from logging proposals in the Kew project far outweighs perceived risks from mistletoe.

Resolution:

BMBP has raised these issues in our comments submitted to the scoping and draft EA periods. To resolve our objections:

- * Drop all logging in Northern spotted owl CHU and dispersal habitat;
- * Retain all old and mature forest structure;
- * Eliminate logging as a means to "control" naturally occurring mistletoe;
- * Retain essential habitat components essential to NSO recovery;
- * Drop the units as noted in the resolution sections above, and make the other changes as also noted.

CLIMATE CHANGE

The Forest Service must prioritize protection of core habitats and connectivity corridors in order to protect species viability and biodiversity, especially in the face of climate change. Increasing connectivity is the most commonly recommended strategy for preserving biodiversity in the face of climate change, according to a review of 22 years of scientific recommendations (Heller and Zavaleta 2009). Increasing connectivity includes actions such as removing barriers to species dispersal, locating reserves near each other, and reforestation. Other commonly recommended connectivity-related actions include creating "ecological reserve networks [i.e.,] large reserves, connected by small reserves, stepping stones"; "protecting the "full range of bioclimatic variation"; increasing the number and size of reserves; and creating and managing buffer zones around reserves (Heller and Zavaleta 2009). Large blocks of habitat that are well-connected to each other are important for the long-term survival for many species in the face of climate change.

It is essential that we preserve core habitats and connectivity corridors because these areas are very important for maintaining genetic diversity, facilitating movement and migration, and providing for range and habitat needs. Connectivity corridors also allow for species to colonize new areas or recolonize after disturbances, which will help species adapt to shifts in geographic range due to climate change. Many species are already facing threats to their viability due to fragmentation and a lack of connectivity; climate change threatens to severely exacerbate risks to their continued survival by further fragmenting habitats.

Logging in this project would contribute to greenhouse gas emissions and exacerbate climate change. The environmental assessment for this sale is woefully inadequate and biased in its analysis of greenhouse gas contributions due to logging in this sale, and does not incorporate best available current

science. The Forest Service is not considering science showing that mature and unmanaged stands store the most carbon, and is instead claiming that heavy logging will help sequester carbon.

Many birds that are threatened by climate change-driven range shifts are also threatened by logging and other practices on the Deschutes National Forest. Bird species that rely on more mature forests with complex canopy structure are also suffering widespread habitat loss due to logging that targets mature mixed-conifer forest. This includes species such as: Boreal owl; Northern pygmy owl; Northern saw-whet owl; Pine grosbeak; Vaux's swift; Hermit thrush; Three-toed woodpecker; Varied thrush; Evening grosbeak; Hammond's flycatcher; Townsend's warbler; Cordilleran flycatcher; Winter wren; Hairy woodpecker; Great gray owl; and Pine siskin (Csuti et al 1997; Langham et al. 2015). Multiple large timber sales across the Deschutes National Forest and other National Forests in eastern Oregon are targeting mixed-conifer forests. This represents a significant portion of mixed-conifer forests in the region, and has resulted in widespread degradation and elimination of wildlife habitat for species that depend on these forests. Logging in the Kew sale will decrease connectivity, especially connectivity in mixed-conifer areas that currently serve as important corridors and are among the last remaining areas that can provide connectivity for species that are associated with LOS, mixed-conifer forests, denser forests, etc.

Resolution:

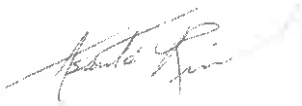
* Drop the units and make the changes as noted in the resolution sections above, these changes will help better provide for ESA listed and species of concern, as will greater retention of mature and old forest structure help better address the incrementally escalating impacts and uncertainties of ongoing climate change throughout the region's interwoven ecosystems.

Thank you for considering the issues addressed in our objection and comments.

Sincerely,



Paula Hood, Co-Director
Blue Mountains Biodiversity Project,
League of Wilderness Defenders



Asante Riverwind, Ecological Consultant,
Blue Mountains Biodiversity Project,
League of Wilderness Defenders

Marilyn Miller, Supporter
Blue Mountains Biodiversity Project