Forest Service

Bitterroot National Forest

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To: Appeal Deciding Official

This is my recommendation on disposition of the appeal filed by Michael Garrity, on behalf of Alliance for the Wild Rockies, of the Pilgrim Creek Timber Sale Environmental Impact Statement (EIS) and Record of Decision (ROD) signed by the Forest Supervisor of the Kootenai National Forest.

The Forest Supervisor's decision includes timber harvest and fuel treatments on approximately 1,434 acres, tree planting on 357 to 725 acres depending on site-specific conditions, and road construction of 4.7 mile of new permanent road, 47 miles of reconstruction, and 1.1 miles of new temporary road construction.

My review was conducted pursuant to, and in accordance with, 36 CFR 215.19 to ensure the analysis and decision are in compliance with applicable laws, regulations, policy, and orders. The appeal record, including the appellant's objections and recommended changes, has been thoroughly reviewed. Although I may not have listed each specific issue, I have considered all the issues raised in the appeal and believe they are adequately addressed below.

The appellant alleges violations of the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), the Endangered Species Act (ESA), Multiple Use Sustained Yield Act (MUSYA), Forest and Rangeland Renewable Resources Planning Act (RPA), Clean Water Act, Montana Water Quality Regulation, the Administrative Procedures Act (APA), and the Kootenai Forest Plan. The appellant(s) request(s) a reversal of the DN. An informal meeting was held but no resolution of the issues was reached.

ISSUE REVIEW

Issue 1. THE FOREST SERVICE DID NOT TAKE A HARD LOOK AND DISCUSS THE RESPONSIBLE OPPOSING VIEWS OF SCIENTISTS WHOSE PUBLISHED PAPERS UNDERMINE THE CENTRAL UNDERLYING ASSUMPTION OF THE PILGRIM TIMBER SALE PROJECT.

The Forest Service should have discussed published scientific papers, which make findings based on actual studies, not simply on models.

The Forest Service should disclose and discuss the findings of – at least – the following studies:

- *Raymond, Crystal L. & David L. Peterson. 2005. Fuel treatments alter the effects of wildfire in a mixed evergreen forest, Oregon, USA. Canadian Journal of Forestry Research 35: 2981 – 2995; and*

- *Odion, Dennis C., Evan J. Frost, James R Strittholt, Hong Jiang, Dominick A. Dellasala, Max A. Moritz. 2004. Patterns of fire severity and forest conditions in the western Klamath Mountains, California. Conservation Biology 18:4: 927-936.*

Response: The appellant lists several specific authors and scientific documents which they believe the Forest service should discuss and disclose the findings and use for the analysis. However, in reviewing the appellant's response to the public scoping letter, where some scientific references were included, these particular studies, and most of the other referenced authors listed in the NOA were not listed at that time prior to the analysis process being completed (Project File (PF), Vol. 3.2, Doc. 008).

Appendix G of the Draft Environmental Impact Statement (DEIS) includes an extensive list of referenced literature and these references are included in the project file. Reference citations are found throughout the DEIS, indicating how the DEIS is tiered to relevant science (ROD, p. 38; PF, Vol. 3.4.2, Vol. 4.1, Vol. 5.3)

The appellant contends that "Published scientific reports indicate that the logging prescription proposed by the Forest Service for the Pligrim project area will actually increase fire severity—not reduce fire severity—as assumed by the Forest Service". The appellant further alleges that "Because this issue is the central underlying theme that is critical to support the proposed logging project, the Forest Service must candidly disclose, consider, and fully discuss the published scientific papers that analyze whether commercial logging is an effective means of fire suppression".

These statements by the appellant illustrates a disconnect in the Appellant's discussion and scientific references in regard to the project's stated purpose and need in the EIS. The appellant contends that the project's "central underlying theme" is related to reducing fire severity, particularly as it relates to the Wildland Urban Interface (WUI). The stated purpose of the Pilgrim Creek Project is to maintain and increase forest resilience to insects, disease and disturbance by increasing age class diversity in lodgepole pine stands, improving growing conditions and favoring root disease resistant species in mixed conifer stands affected by root disease, and improving big game forage production while providing for the local economy through commercial timber harvest. Whereas increased resiliency may likely provide some degree of increased fire resiliency, nowhere in the EIS's stated purpose and need is reference to WUI, hazardous fuels reduction, or reducing fire effects (EIS, pp. 1-4 to 1-8).

Through omission in the purpose and need statement, the EIS is clear that fuel reduction, increased fire resiliency, and reduced crown fire risk are secondary in nature and subservient to the primary stated purpose and need as identified above. The appellant has misinterpreted the

purpose and need for the project. The appellant's references attributed to Schoennagel, Brown, Hayward and others in this NOA contention are primarily fire and fuels related and bear little applicability to the project's stated purpose and need, and consequently are of limited value to the analysis in regard to the project's stated purposes of forest resiliency to insect and disease, increased age class diversity, salvage of high risk lodgepole pine, local economic stimulus, and improved big game forage.

The appellant further states, "The EA (sic) fails to clearly disclose which treatments are for fuel reduction and which are to deal with the alleged "forest health" problem(s)". As stated above, the Pilgrim Creek EIS clearly articulates the purpose and need for the project that is forest resiliency and health and wildlife habitat improvement with fuel reduction as a secondary, collateral benefit. The appellant's statement is not applicable to the project, which further indicates the appellant's science references are of limited applicability. Furthermore, many of the references listed by the appellant within this appeal contention do not provide sufficient information to find or validate the specific reference, and most are not included in the appellant's appendix A of the appeal. However, it appears that some of the science, or at least some of the authors listed by the appellant, are also included in the project file (PF, Vol. 3.4.2, Vol. 4.1, Vol. 5.3).

In regard to the appellant's contention, I find that the Forest Service did indeed take a hard look and has utilized an extensive collection of pertinent scientific information relevant to the project's stated purpose and need in development of the project, determining the direct, indirect and cumulative environmental effects associated with project implementation and predicting the long and short term results of implementation. The scientific information recommended by the appellant in this particular contention within the NOA is poorly referenced, has limited relevance and applicability to the project, was submitted late in the analysis process and it would not be anticipated that consideration of this science would contribute significantly or otherwise affect the outcome of the analysis or the responsible officials decision space. I also find that the Forest did consider science which was submitted in a timely manner by various members of the public and generally had opposing views, including literature references submitted by the appellant in their response to scoping (PF, Vol. 3.4.2).

Issue 2. FIRE AND FUELS PROPOSED ACTIONS ARE NOT EFFECTIVE WUI TREATMENTS

Based on lack of proper mapping of current and projected conditions, the EA (sic) doesn't accurately disclose the threats to private structures and people under any scenarios, for all alternatives. It must be discernible why some areas are included for treatment and others are not.

The EIS fails to deal lucidly with the hazardous fuels issue on the appropriate landscape scale. The EIS only discusses fuel conditions in the areas proposed for treatment, yet wildland fire operates beyond artificial ownership or other boundaries. The EIS fails to answer a fundamental question: Will the fuel reduction activities be in any way significant, when one of any number of potential fire scenarios plays out on the land in the foreseeable future? One cannot tell, because the fuel conditions in the larger landscape surrounding "treatment units" are not adequately discussed.

The EIS also fails to deal with the fuels issue on the appropriate temporal scale.

The FS's usual response to our comment that the fire planning issue is indeed programmatic, is that it is "out of the scope" of a project analysis, which is precisely our point: the FS has so far failed to deal with this issue within the appropriate forest wide or landscape level. In the absence of such planning, the public and decision maker for this project proposal is extremely uninformed. So, for example, fire suppression actions are never disclosed, as NEPA requires.

None of the so-called cumulative effects discussions adequately discloses the effects of past management activities in a logically-defined analysis area, on land of any ownership, to the issue of how those projects have affected the fuel situation now referred to as "hazardous." How have past and ongoing logging and other management activities across this landscape affected fuel conditions and the "forest health" issues alleged by the EA (sic)? We know that old high grade and clearcut-type logging leads directly to vegetative conditions that are not natural and present an elevated (above natural) risk of fire. Yet nowhere does the EA (sic) present an intelligent cumulative effects discussion about past management in relation to its "Purpose and Need" in violation of NEPA, NFPA and the APA.

Response: The responsible official's decision does not violate National Environmental Policy Act, National Forest Management Act or the Administrative Procedures Act. The DEIS clearly states the purpose for the project is to maintain and increase forest resilience to insects, disease and disturbance by increasing age class diversity in lodgepole pine stands, improving growing conditions and favoring root disease resistant species in mixed conifer stands affected by root disease, and improving big game forage production while providing for the local economy though commercial timber harvest (DEIS, p. 1-4). The purpose and need for the project was not to create a community protection zone or reduce fuels loads within the wildland urban interface but rather to improve forest health. While the reduction of fuels within the project area may be a result of the implementation of treatments it would be a secondary one (DEIS, pp. 1-3 to 1-6, DEIS, pp. 3-135 to 3-158). The fire and fuels analysis does analyze how each of the alternatives would alter the future behavior within the project area, specifically the treatment units and how treatment would reduce flame lengths and the potential for crown fires allowing for more direct suppression of wildfire (DEIS, pp. 3-148 to 158). The fire and fuels analysis also does discuss how past suppression of wildfire has changed the landscape and added to the current fuel loading conditions (DEIS, pp. 3-138 to 3-144).

I find the project and analysis are in compliance with NEPA, NFMA, and APA.

Issue 3. THE FOREST SERVICE DID NOT TAKE A HARD LOOK AT HOW CLIMATE CHANGE AFFECTS AND IS AFFECTED BY THIS PROJECT IN VIOLATION OF NEPA, NFMA, THE FOREST PLAN AND APA.

Published scientific reports indicate that climate change will be exacerbated by logging, and that climate change will lead to increased wildfire severity (including drier and warmer conditions that may render obsolete the proposed effects of the Project). The former indicates that the Pilgrim Project may have a

significant adverse effect on the environment, and the latter undermines the central underlying purpose of the Project. Therefore, the Forest Service must candidly disclose, consider, and fully discuss the published scientific papers discussing climate change in these two contexts. At least the Forest Service should discuss the following studies:

- *Depro, Brooks M., Brian C. Murray, Ralph J. Alig, and Alyssa Shanks. 2008. Public land, timber harvests, and climate mitigation: quantifying carbon sequestration potential on U.S. public timberlands. Forest Ecology and Management 255: 1122-1134.*
- *Harmon, Mark E. 2001. Carbon sequestration in forests: addressing the scale question. Journal of Forestry 99:4: 24-29.*
- *Harmon, Mark E, William K. Ferrell, and Jerry F. Franklin. 1990. Effects of carbon storage of conversion of old-growth forest to young forests. Science 247: 4943: 699-702*
- *Harmon, Mark E, and Barbara Marks. 2002. Effects of silvicultural practices on carbon stores in Douglas-fir – western hemlock forests in the Pacific Northwest, USA: results from a simulation model. Canadian Journal of Forest Research 32: 863-877.*
- *Homann, Peter S., Mark Harmon, Suzanne Remillard, and Erica A.H. Smithwick. 2005. What the soil reveals: potential total ecosystem C stores of the Pacific Northwest region, USA. Forest Ecology and Management 220: 270-283.*
- *McKenzie, Donald, Ze'ev Gedalof, David L. Peterson, and Philip Mote. 2004. Climatic change, wildfire, and conservation. Conservation Biology 18:4: 890 -902.*

Response: The appellant provided one brief comment on the DEIS related to climate change and carbon flux (Final Environmental Impact Statement (FEIS), Response to Comments pp. 12). No supporting evidence or literature was provided with that comment. That comment by the appellant is only remotely reflected in his current appeal contention. The Forest addressed this DEIS comment explicitly and appropriately (FEIS, Response to Comments p. 13).

The appellant now includes in this appeal a new argument with numerous literature citations. The appellants did not put the agency on notice of these additional concerns. This is not the first time (e.g. see ARO Letter on Appeal #12-01-00-0076, pp. 3-4[1]). The appellant now claims the Forest did not take a hard look at how climate change affects and is affected by this project and thus claims violations of NEPA, NFMA, the Forest Plan, and APA. My review of the record shows otherwise. First, neither NFMA nor the Kootenai NF Forest Plan require such a look at the project level. That contention is moot. NEPA does require that agencies consider significant effects of proposed actions on the human environment. For issues (effects of the proposed project) determined to not be significant, NEPA requires only a "brief presentation of why they will not have a significant effect on the human environment" (40 CFR 1501.7(a)(3)). In part my review is governed by APA.

The notice and comment period is intended to solicit information, concerns, and any issues

[1] Available at http://data.ecosystem-management.org/appeals/displayDoc.php?doc=VjFab1EyUXhjRmhTYms1cVpXNU9OVlJXVWxkYWF6RnhZWHBLVG1SNk1Eaz0=

specific to the proposed action and to provide such comments to the Responsible Official before the decision is made. The intent in requiring comments is to obtain meaningful and useful information from individuals about their concerns and issues, and use it to enhance project analysis and project planning. Waiting until the appeal period to raise additional issues and arguments or submit literature they believe is relevant to the decision does not give the Responsible Official an opportunity to consider the impacts of the project in light of public concerns.

Due to the fact the appellant did not bring these specific concerns to the attention of the Responsible Official at the appropriate time; I will not consider the contention further. I will note that the appellant raised almost identical issues recently on appeal of the Cabin Gulch project and, prior to that, the East Fork Meadow Creek project and referenced the same literature. In the later case, the Appeal Reviewing Officer found, "The scientific and other literature provided by the appellant has limited direct relevancy to the issue under review…All represent valid studies or treatises on their particular subject matter…however their scope is either at the global scale or else study or focus on ecosystems quite different than those being considered here" (3/8/2012 ARO Letter on Appeal #12-01-00-0034, pp. 29 to 32[2]). Based on these prior reviews and related analysis, I also conclude the current contentions and literature citations do not represent significant new information about the potential effects of this project.

For issues determined to not be significant, NEPA requires only a "brief presentation of why they will not have a significant effect on the human environment" (40 CFR 1501.7(a)(3)). The Pilgrim Creek FEIS and ROD are in compliance with NEPA (see also DEIS, pp. 3-29 to 3-31 and 3-35; FEIS, pp. 89, and 98 to 99).

Issue 4. UNINVENTORIED AND INVENTORIED ROADLESS AREAS

The EIS and ROD failed to address the effects of logging and roading the uninventoried roadless areas on their characteristics vis-à-vis potential for future wilderness or inventoried roadless area designation. The discussion of the impacts on roaded areas was superficial and did not discuss the effects of unroaded areas.. There was no analysis of the project's impact on the unique values of unroaded areas together with their adjacent inventoried roadless areas. The EA, DN and FONSI (sic) do not constitute the "hard look" requirement with respect to the environmental impact of logging and roading uninventoried roadless areas.

Response: The responsible official's decision does not violate either the 1977 Roadless Area Review and Evaluation or the 2001 Roadless Area Conservation Rule. A detailed Inventoried Roadless and Unroaded Analysis Process was conducted for the project area and provided as part of the environmental impact statement and the project file (DEIS, pp. 3-277 to 3-288; PF, Vol. 11, Docs. 01 to 11). The 2001 Roadless Area Conservation Rule does not specifically protect roadless areas from development nor does it strictly prohibit multiple use activities on these lands. Under the 1977 Roadless Area Review and Evaluation II, the Forest Service Manual 1923

[2] Available at http://data.ecosystem-management.org/appeals/displayDoc.php?doc=VjFab1EyUXhjRmhTYms1cVpXNU9OVlJXVWxkYWF6RnhXbnBTVDFGVU1Eaz0=

and the Forest Service Handbook 1909.12 (72.1) process rated the Huckleberry Mountain and Lone Cliff Smeads inventoried roadless areas as having low potential for wilderness designation (PF, Vol. 11, Docs. 004 and 005). Additionally the Skeleton Creek and South Fork Pilgrim Creek areas while not designated as wilderness or as inventoried roadless areas were assessed using the 1964 Wilderness Act, Forest Service Manual 1923 and Forest Service Handbook 1909.12 (DEIS, pp. 3-283 to 3-288). The planned timber harvest in unroaded areas would not change how the area would be considered or not considered for wilderness designation in the future as the existing capability of these areas to be suitable is low (ROD, p. 22; DEIS, pp. 3-285 to 3-288).

I find the project is in compliance with the 1964 Wilderness Act, 2001 Roadless Area Conservation Rule, and the 1977 Roadless Area Review and Evaluation II.

Issue 5. CLIMATE CHANGE ALTERNATIVE NOT CONSIDERED

The FS also refused to study in detail any alternative consider the impacts of their proposed actions on climate change in violation of NEPA, NFMA, the forest plan and the APA. Eventually, if the FS does not begin considering the long-term cumulative impacts of its industrial logging on climate change, the courts will likely force the FS to consider those impacts. This important consideration could lead land managers and policy makers to the conclusion that National Forest lands are more valuable to the national and global community as carbon sinks than as commercial tree farms.

The DEIS mentions "predicted climate change" but does not disclose how the resource management regime being imposed is consistent with the changes likely under any climate change scenarios. Under "Carbon Flux" the DEIS basically poses that its management regime is neutral in terms of carbon storage. This is in direct contraction to much scientific discussion on the topic, which indicates timber management only reduces long-term carbon stocks. In short, the DEIS ignores the controversy and genuine scientific dialogue.

The DEIS does not disclose how accurate R1 FSVEG Size Classes are for translating into successional stages (Table 3-3), especially suspect due to the age of much of your timber stand data. We suspect that other resource analyses, such as for wildlife, are further extrapolations upon this one extrapolation, making their reliability and validity quite doubtful. Use of the term "immature" to describe stands initiated over 100 years ago (3-17) doesn't help.

Response: As to the NFMA and Forest Plan claims, neither requires consideration of these requested alternatives in a project decision such as this. Those claims are moot.

The appellant did not suggest this alternatives in their comments on the DEIS (PF, Vol. 3.4.1, Doc. 004), nor question its absence. Furthermore, I find no significant evidence in the record to support the notion that consideration of this alternative was warranted in this case, and the appellant does not provide any in the appeal nor even indicate what such an alternative would involve. The Pilgrim Creek EIS discusses and discloses the effects of the proposed action and alternatives on carbon flux (see Issue 3 above). At the scale of global climate change, these

effects would be indistinguishable from the effects of taking no action at all. Based on these considerations, I find the Forest did not overlook or need to consider this alternative and therefore the analysis is in compliance with NEPA and APA.

Issue 6. SOIL PRODUCTIVITY – VIOLATIONS OF NEPA AND NFMA

The EIS's soils analysis fails to disclose information from the Soil Specialists Report that reveals soil quality standards limiting the areal extent of detrimental soil disturbance (DSD) would be exceeded.

The DEIS provides a very vague explanation of the methods used to use measured soil survey data from assessment in the field to estimate total DSD for each proposed treatment unit. The accuracy of estimates given for previously impacted units is doubtful and in violation of NEPA, NFMA, and the ESA.

The DEIS's cumulative effects discussions fail to account for the ecological damage that logging has caused due to deficiencies of large woody debris in past timber operations.

The EIS also relies upon Best Management Practices (BMPs) to base its claims that soil productivity will be maintained following logging practices. However, BMP monitoring does not even attempt to measure post-project soil productivity, since the audits are not scientifically designed to do so. Nor does it result in quantitative measures of detrimental disturbance, or soil productivity, which are the most relevant factors here.

The EIS fails to incorporate the best scientific information available concerning soil productivity and fails to demonstrate compliance with mandatory soil quality standards. The DN and EA arbitrarily and capriciously claim that soil productivity has not, and would not further, significantly impair forest soils and productivity.

Response: The Multiple Use-Sustained Yield Act of 1960 directs the Forest Service to achieve and maintain outputs of various renewable resources in perpetuity without permanent impairment of the land's productivity. Section 6 of the National Forest Management Act of 1976 (NFMA) – Section 6(g)(3) states that harvest shall be "carried out in a manner that is consistent with the protection of soil resources" and that "soil, slope, or other watershed conditions will not be irreversibly damaged". To comply with NFMA, the Chief of the Forest Service has charged each Forest Service Region with developing soil quality standards for detecting soil disturbance and indicating a loss in long-term productive potential.

The Regional Soil Quality Standards (R-1 Supplement 2500-99-1) provides soil quality standards to assure the statutory requirements of NFMA are met. The Manual direction is to not create detrimental soil conditions on more than 15 percent of an activity area. This is based on research indicating that a decline in productivity would have to be at least 15% to be detectable (Powers, 1990). In areas where more than 15 percent detrimental soil conditions exists from prior activities, the cumulative detrimental effects from project implementation and restoration should not exceed the conditions prior to the planned activity and should move toward a net

improvement in soil quality. These standards do not apply to intensively developed sites such as permanent roads/landings, mines, developed recreation and administrative sites.

The Forest Plan states that soil and water conservation practices (SWCPs) as outlines in Water Conservation Practices Handbook R-1/R-4 Amendment No. 1 (FSH 2509.22) will be incorporated into all land use and project plans as a principle mechanism for controlling non-point pollution sources and meeting soil and water conservation practices or State standards will brought into compliance, modified, or stopped (Volume 1, p. II-23). Best Management Practices consist of state-of-the art practices that fulfill Forest Plan objectives and are designated to minimize soil disturbance during harvest and road construction activities.

The Kootenai Forest Plan states that effects on soil productivity will be evaluated for all projects involving heavy equipment and that the total area allocated to concentrated equipment travel should be minimized.

The Pilgrim Creek Timber Sale soils inventory/monitoring methodology and analysis methodology is consistent with R-1 Supplement No. 2500-99-1 (Vol. 09, Doc. 002) as presented in the DEIS (pp. 3-232 to 3-261). Consistent application of this Forest Service Manual 2500 supplement with corresponding definitions and direction meet National Forest Management Act (NFMA), National Environmental Policy Act (NEPA) and other legal mandates. All units containing evidence of existing soil disturbance related to past management activities received a full qualitative field survey using R1 Soil Survey Procedures (PF, Vol. 9, 001 to 005) The post-harvest, cumulative detrimental disturbance determinations for all proposed activity areas within all alternatives for the Pilgrim Creek Timber Sale are within and do not exceed the 15% detrimental soil disturbance standard prescribed in R-1 Supplement No. 2500-99-1 (DEIS, pp. 3-247 to 249, Table 3-71). The analysis discloses that the cumulative effects to soil productivity are analyzed for activity areas as opposed to the "watershed scale" because that is not considered an appropriate geographic area (DEIS, p. 3-236).

BMPs are accepted and proven practices for mitigating detrimental effects to soil productivity from management activities, including timber harvest and prescribed fire. BMPs are intended to reduce detrimental effects to soil productivity from management activities. BMP monitoring assesses whether BMP's were implemented as prescribed. When soil protection BMPs are implemented as prescribed, soil productivity is maintained. The EIS includes a section titled "Current Versus Historic Management Practices" that describes the improvements in management practices to protect soil resources over time and lists the Forest BMPs that are currently incorporated into timber harvest activities (EIS, p. 3-256).

The soils analysis includes a comprehensive discussion and analysis regarding nutrient cycling, the importance of maintaining both fine and course woody debris (CWD), the science used for project design to insure maintenance of CWD, and how the recommended CWD requirements would be met within both regeneration and commercial thin harvests activity areas (EIS, pp. 3-254 to 3-255).

I find that the responsible official has followed the R-1 Supplement No. 2500-99-1and thus meets requirements under MUSY, NFMA, NEPA. The soils analysis is developed around

minimizing detrimental effects to soil productivity and maximizing the long term preservation of soil productivity. The appropriate science used in the development of R-1 Supplement 2500-99-1 has been appropriately referenced in the analysis. The effects of the proposed management activities have been clearly articulated and disclose that the maintenance of long term soil-productivity, hydrologic function, and ecosystem health will be ensured (EIS, pp. 3-232 to 3-260). The scientific information used to conduct soils analysis is extensive, current and relevant (PR, Vol. 9.1). The EIS's disclosure that none of the pre-harvest or post-harvest treatment units will exceed the 15% detrimental disturbance prescribed in R1 Supplement 2500-99-1 validates that soil productivity is being maintained to meet legal mandates in the MUSY, NFMA, NEPA, and the KNF Forest Plan.

Issue 7: PROPOSED ACTIONS ARE IN VIOLATION OF FOREST PLAN STANDARDS FOR VQO.

Alternatives "have the potential to change the VQO from Partial Retention to a Modified status in some areas..." We are not aware of forest plan direction that allows for project activities to change the visual quality objective of an area. The DEIS basically states that some project activities would be inconsistent with forest plan VQOs, which is something else entirely.

Response: The responsible official's decision does comply with National Environmental Policy Act and the Forest Plan. The Scenic Resources effects analysis states that treatments units 39, 40, 37, 39A, 39B, 40B, and 40C would move the visual quality for those areas from partial retention to a modified status temporarily. It goes on to say that by treating those units the visual quality would move toward meeting the partial retention goal in the long term (DEIS, p. 3-274).

The Forest Plan does not set absolute visual quality requirements, nor does it state that the visual quality objective cannot be altered. Instead, it states for both Management Areas 11 and 12 "the visual quality objective is maximum modification in areas of low visual significance, modification in areas of moderate visual significance, and partial retention in areas of high visual significance, unless unfeasible when attempting to meet the goals of the management area" (Forest Plan, pp. III-43 and III-48). I find the responsible official's decision complies with the Forest Plan.

Issue 8. INAPPROPRIATE USE OF HISTORIC RANGE OF VARIABILITY

Applying the concept of Historic Range of Variability (HRV) for sustaining forest ecosystems, as the DEIS does, may be appropriate as long as the uncertainties pertaining to reference conditions of the project area are addressed, and all important resource conditions are adequately considered within the HRV framework.

The DEIS, unfortunately, represents an imbalanced use of the HRV concept. For example, given the paucity of historical data of timber stands and landscape pattern of the project area, and given that so much data is obsolete, the DEIS's analysis does cannot adequately support the proposed manipulation of timber stands. It is extremely important to utilize the best data

available to make accurate determinations of the reference conditions and to be able to therefore correctly identify departures from the reference conditions (Churchill, 2011; Noss, 2001).

There is nothing in the DEIS that discloses or displays the ***reference conditions for the pattern*** *of varying forest conditions across the landscape. Because of the dynamics associated with disturbance agents such as fire and other agents of tree mortality such as insects and disease, the landscape pattern in so many ways represents ecological resilience. Conditions in any given stand—even current conditions—tend to fall within the wide range of variability found in pre-development times. That is the nature of forests of the mixed fire regime. (Churchill, 2011) We emphasize:* ***any departure is found in the pattern—not individual stands.*** *The DEIS's emphasis on the latter misses the forest for the trees, and we believe it was misused to justify logging.*

Response: The Forest responded to this concern in the FEIS (Response to Comments, pp. 10 to 12). The DEIS (pp. 3-10 to 3-29) contains an analysis of the Vegetation Response Units and discussion of whether or not the units are outside the historic range within a discussion of the Exiting Condition. The Forest points out there is no standard protocol for consideration of the historic range of variability in land management. The concept of reference conditions and how close the existing condition is to the reference condition or whether a stand is within the range of variation is used to facilitate the understanding of landscape dynamics, not as the basis for management of a particular stand. Rather, site specific stand management is based on the objectives for the particular site or stand (FEIS, p. 10).

Issue 9. PROPOSED ACTIONS ARE NOT COMPLIANT WITH FOREST PLAN STANDARDS AND GUIDELINES FOR UNSUITABLE MANAGEMENT AREAS.

a) MA 10, areas would be logged. The DEIS does not demonstrate consistency with Forest Plan standards for MA 10, which includes: "This MA is unsuitable for timber production. Salvage harvest may occur to prevent the spread of insects or disease to adjacent MA's. Harvest may occur for wildlife habitat maintenance or enhancement. Harvest will not occur on area of inventoried old-growth timber or where old-growth retention is needed" (Forest Plan, p. III-40).

b) The DEIS indicates that the FS has completed amending the forest plan in regards to unsuitable lands in MA 18 without providing any analysis in the DEIS.

c) The appellant contends that the EIS must include an alternative that meets MA 12 ORD standards.

d) The DEIS fails to address many applicable standards particular to management areas found in the project area. For example the DEIS fails to demonstrate consistency with MA 13 facilities standards and others, or include alternatives consistent with them.

Response:

Management Area 10:
The original proposed action would harvest 15 acres of MA-10 (DEIS, p. 3-46). The harvest in MA-10 was designed to meet specific wildlife habitat improvement objectives in full compliance

with the Forest Plan standards for MA-10. However, the selected alternative does not harvest in Management Area 10 (ROD, p. 11).

Management Area 18:
The KNF Forest Plan states: "Except for Congressionally established or special administrative boundaries, the MA boundaries are not firm lines and do not always follow easily identified topographic features such as major ridges, rivers, streams, roads, etc. The boundaries represent a transition from one set of opportunities and constraints to another with direction established for each. The boundaries are flexible to assure that values identified are protected and to incorporate additional information gained from further on-the-ground reconnaissance and project level planning" (KNF Forest Plan, p.III-1).

KNF Forest Plan Management Area 18 direction allows the Forest to "Reassign the productive timberland to the suitable timber base when regeneration techniques can be assured and market conditions are such that the harvest of timber from this MA will contribute to the Net Public Benefit" (KNF Forest Plan; p. III-80; Timber, #6).

A Recommended Management Area Change Summary identifies 503 acres being proposed and approved for reassignment from their original designation within Management Area 18 to a reassigned designation within Management Area 12. The change is based on monitoring that has demonstrated regeneration is not a problem and areas proposed for change can meet the after harvest five year regeneration requirement under NFMA (PF, Vol. 2, Doc. 014). An additional letter to the District Ranger from the Forest Silviculturist, dated February 14, 2011, proposes certain lands in Skeleton Creek of Management Area 18 lands to be reassigned to a Management Area suitable for timber production based on the determination that techniques are available to insure regeneration after timber harvest (PF, Vol. 2, Doc. 012).

Recommendations for proposed management area changes are based on the four categories established in FSH Supplement 1909.12. The categories are:

> Category 1: changes simply correct mapping errors.
>
> Category 2: changes involve verification of the scientific and technical information which led to the original MA designation.
>
> Category 3: refers to legally mandated changes such as land exchanges, Congressional passage of a Wilderness Bill, or Record of Decision for a large mine or other major private initiative. This type of change may trigger a Forest Plan Amendment.
>
> Category 4: involves the realization that another MA designation for an area may be more preferable.

Category 1 and 2 changes are routine field validations that do not trigger a formal Forest Plan Amendment. The re-assignment of Management Area 18 acres to Management Area 12 acres fits within category 2 described above as this change involves verification of scientific and technical information, in this case the potential or lack thereof, for successful, adequate regeneration as

prescribed in NFMA. Field verification has been completed and has documented that the change is appropriate because the areas proposed for change can be successfully regenerated as required by NFMA (Vol. 2, Doc. 012 and Doc. 014). This change is consistent with the Kootenai Forest Plan (Kootenai Forest Plan, p. III-80, Timber, #6).

Management Area 12:
The appellant contends that the EIS must include an alternative that meets MA 12 ORD standards. Alternative 5 was designed to meet Forest Plan standards, without needing a project-specific Forest Plan amendment (DEIS, p. 2-30 to 2-34; ROD, p. 10). It does not increase ORD standards in the area outside of Stevens Ridge Amendment Area and is therefore consistent with Forest Plan direction (FEIS, p. 24). Since the EIS proposes to temporarily exceed the ORD standard, a site specific, project level Forest Plan amendment is required and has been completed for this project and determined not to be a significant amendment (FEIS, Appendix M).

Management Area 13:
The appellant's contention that the DEIS fails to demonstrate consistency with MA 13 facilities standards does not provide enough information regarding what facility standard is being questioned and/or how the project is not consistent with the standard. The facility standards under MA 13 are concerned with restricting local roads and closing and re-vegetating temporary roads. There is no road construction planned in MA 13 (ROD, p. 23). Roads that had been closed but will be used for this project, will still be restricted for public use during the project and closed after the project (ROD, p. 20) and all temporary roads will be re-contoured after the project is completed (ROD, p. 2).

The project is in compliance with Forest Plan standards.

Issue 10: OLD GROWTH AND ASSOCIATED WILDLIFE SPECIES ANALYSES ARE INADEQUATE

Issue 10, Contention A: *The DEIS does not disclose how accurate R1 FSVEG Size Classes are for translating into successional stages (Table 3-3.), especially suspect due to the age of much of your timber stand data. We suspect that other resource analyses, such as for wildlife, are further extrapolations upon this one extrapolation, making their reliability and validity quite doubtful.*

Response: The Forest replied to this comment in the FEIS (Response to Comments, p.13). The Kootenai used fire history information, stand data, aerial photo interpretation, ground-truthing and professional judgment to determine the successional stages. The highest quality information available information was used for analysis.

I find the Forest is in compliance with NEPA and 40 CFR 1500.1(b), and did use high quality information to inform decisions.

Issue 10, Contention B. *The DEIS is not consistent with Forest Plan old growth standards or*

monitoring provisions required to insure wildlife viability. Since the Forest Plan does not explain the implications for wildlife viability when planning sub-units are below 10% old growth, or where so many old-growth blocks are below the size the Forest Plan states is effective habitat for associated wildlife, the DEIS must fill in the gaps. We don't see how the DEIS does that.

Response: Kootenai FP standards (II-22) state that "At any time 10% of the Kootenai National Forest land base below 5,500 feet in elevation will be in an old-growth timber condition, providing habitat for those wildlife species dependent on old growth timber for their needs. The old growth will be spread evenly through most major drainages, and will represent the major forest types in each drainage." A Kootenai FP "Desired Future Condition" 4.3(d) (II-23) is "providing old growth habitat, both natural and managed, in various unit sizes from about 40 to 300 acres well distributed across the Forest." Monitoring and Evaluation Plan items (Kootenai FP IV-8 to IV-9) that apply to old growth are: C-4 "maintain viable population of old growth dependent species (greater than or equal to 40% of potential)"; C-5 "maintain habitat capable of supporting viable populations of old growth dependent species (10% old growth in each drainage)"; C-6 "maintain habitat capable of supporting viable populations of cavity nesters (greater than or equal to 40% of potential)"; and C-8 "maintain indicator species above minimum viable population levels for the Forest as a whole". The Kootenai FP prescribes these monitoring items to be reported every two to five years.

The Pilgrim Creek Project occurs in the Pilgrim Creek subunit, where the existing condition of old growth at elevations below 5500 feet is 3 percent designated effective old growth and 7 percent designated replacement old growth for a total of 10 percent old growth. The existing condition of these old growth stands occur in size blocks of 26 to 660 acres in size (DEIS, p. 3-52). Although some of these size blocks are smaller than the Kootenai FP guideline, the project would not harvest timber in old growth, therefore would not reduce the size of the existing blocks of old growth (DEIS, p. 3-55). The most recent forest-wide old growth analysis concludes that at least 10 percent of the KNF below 5500 feet elevation is designated for old growth management (USDA FS KNF Monitoring Report 2011, p. 4). The project does not propose timber harvest in existing old growth, and does propose prescribed fire in 530 acres to maintain and enhance old growth conditions (DEIS, p. 3-55). Therefore, the project would maintain the designated management level of old growth (DEIS, p. 3-56) and at a distribution of vegetation that represents the conditions of the Pilgrim Creek subunit (DEIS, p. 3-52).

The KNF Monitoring Report 2007 (Project Record, Vol. 18, Doc. 005, pp. 20 to 38 and pp. 50 to 52) describes the monitoring and evaluation completed for each of these items. The KNF Monitoring Report 2010, (Project Record, Vol. 18, Doc. 002, pp. 2 to 16) describes the monitoring and evaluation completed for item C-5.

With regard to the appellant's challenge, I find that the Forest Service, is in compliance with the Kootenai FP standards for old growth, maintains the designated management level of old growth (at least 10% at an elevation below 5500 feet) at both the Pilgrim Creek subunit level at the forest-wide level, and representing the major forest types of the drainages. I also find that the Forest Service is in compliance with the Kootenai FP monitoring and evaluation plan by reporting findings on monitoring items at the appropriate frequency.

Issue 10, Contention C. *The DEIS does not present data on MIS population abundance or nesting success in the project area. Since there is no scientific basis for assuming that 10% old growth is enough for species viability, and since there is no scientific basis to support the KNF's use of its MIS pileated woodpecker as adequately "indicating" for other species including the Sensitive wolverine, black-backed woodpecker, fisher, flammulated owl, northern goshawk, etc., the proof would be in the monitoring. And no available data is cited which demonstrates the FS has completed monitoring that would validate the assumption inherent in the Forest Plan's old-growth habitat standards—that they are adequate for assuring old-growth species' viability.*

Response: "The maintenance of viable populations of existing native and desirable non-native vertebrate species, as monitored through indicator species, will be attained through the maintenance of a diversity of plant communities and habitats" (USDA KNF Forest Plan, p. II-22). The Kootenai Forest Plan (Vol. II, Appendix 12) lists pileated woodpecker as the management indicator species for snag and old growth timber habitat. Kootenai Forest Plan Monitoring and Evaluation Plan items (Plan, pp. IV-8 to IV-9) that apply to old growth and pileated woodpeckers are: C-4 "maintain viable population of old growth dependent species (greater than or equal to 40% of potential)"; C-5 "maintain habitat capable of supporting viable populations of old growth dependent species (10% old growth in each drainage)"; C-6 "maintain habitat capable of supporting viable populations of cavity nesters (greater than or equal to 40% of potential)"; and C-8 "maintain indicator species above minimum viable population levels for the Forest as a whole". The Plan prescribes these monitoring items to be reported every two to five years.

The KNF Monitoring Report 2007 (USDA FS KNF 2008, pp. 20 to 38 and pp. 50 to 52) describes the monitoring and evaluation completed for each of these items. The KNF Monitoring Report 2010 (USDA FS KNF 2011, pp. 2 to 16) also describes the monitoring and evaluation completed for item C-5. The monitoring results for pileated woodpecker conclude that: "Hutto's report, the preliminary population transects, and Forest staff observations all point to the same consistent interpretation, that pileated woodpeckers are widespread and are relatively common on the Kootenai National Forest. The information available at this time does not indicate that a significant downward trend approaching 40% of population potential is occurring. Information for the Region [as a whole] is similar for the pileated woodpecker as well as the two other species which are dependent on old growth for a portion of their lifecycle" (USDA FS KNF 2008, p. 23). Additionally, the wildlife analysis for pileated woodpecker based on population potential for available old growth habitat (DEIS, pp. 3-74 to 3-77) concludes that the pileated woodpecker population potential would not be changed by the project. The DEIS (p. 3-78) asserts that because sufficient old growth, snag, and down wood habitat for pileated woodpeckers is available, populations of other species using that habitat would remain viable.

I find the Forest is in compliance with the Kootenai FP standard for maintaining viable populations of old growth dependent species by providing sufficient habitat for the pileated woodpecker. The Forest Service is also in compliance with the Kootenai FP monitoring and evaluation plan by reporting findings for population viability of pileated woodpecker.

Issue 10, Contention D. *The analysis for the old-growth and cavity nesting MIS pileated woodpecker boils down, essentially, to "we're not affecting them because we're not logging designated old growth." We don't expect that woodpeckers will read the EIS to determine where all the newly designated old growth is (which is the latest version of the FS's viability guarantee). The DEIS is inconsistent with the best scientific information, including some of the sources the DEIS cites. For example, there is nothing in the DEIS pertaining to nest tree characteristics.*

Response: In the FEIS Response to Comments (p. 18), the Forest explains that old growth is used as the analysis variable for pileated woodpecker because the pileated woodpecker's requirement for large diameter dead trees for nesting is a component of old growth. By addressing effects to old growth, nesting requirements for pileated woodpeckers are considered. Numerous scientific references in the project record discuss nest tree characteristics and there is no doubt the project wildlife biologist has a full understanding of pileated woodpecker habitat preferences. Not including an exhaustive description of nest tree characteristics in the DEIS does not constitute an inconsistency with science.

I find the Forest is in compliance with the NEPA implementing regulations 40 CFR 1500.1(b) by using high quality information to assess project affects to pileated woodpecker.

Issue 10, Contention E. *The DEIS does not explain why areas of designated old growth degraded by snag loss due to firewood cutting or wind vulnerability, or degraded in other ways related to the fragmentation and edge effects described in the DEIS and scientific research, still qualify as "effective old growth." Qualitatively speaking, the DEIS admits that the effectiveness of the "effective" old growth is not as good as unaffected areas. Projected forestwide, this indicates the "effective" old-growth inventory is most likely an overestimate, statistically speaking. This is not considered in any viability analysis.*

"While changes in vegetation and wildlife use may occur on the acres influenced by edge, those acres remain functional old growth for some species" (3-54). We know that is true for brown-headed cowbirds, but with this vague assertion the DEIS is unable to make any statement regarding those dozens of species the forest plan recognizes as finding optimum habitat in old growth.

Response: Old growth on the Kootenai NF is designated by applying structural stages and characteristics from Green et al. 1992, as referenced multiple times in the DEIS (p. 3-47 to 3-48, p. 3-52, p. 3-75), and the definition in the Kootenai Forest Plan.

The Kootenai FP standard (p. II-22)states, "At any time 10% of the Kootenai National Forest land base below 5,500 feet in elevation will be in an old-growth timber condition, providing habitat for those wildlife species dependent on old growth timber for their needs. The old growth will be spread evenly through most major drainages, and will represent the major forest types in each drainage." The DEIS wildlife analysis of old growth discusses edge effect (p. 3-53) and concludes that there "may be reduced old growth quality for some plant and animal

species" (p. 3-56) and that the action alternatives "would maintain the designated management level of old growth" (p. 3-56). The wildlife section of the DEIS also states, "Since sufficient old growth forest, and snag and downed wood habitat is available, the populations of species using that habitat should remain viable" (p. 3-78). This assumption is validated by monitoring, and application of the 2004 Conservation Strategy for the Kootenai (Project record, Vol. 6.1, Doc. 055). I find the Forest is in compliance with NFMA requirements for following the Kootenai Forest Plan standards for old growth.

Issue 10, Contention F. *"There are no site specific snag surveys in the Pilgrim PSU" (DEIS 3-58). The Smeads-Rice ROD required snag monitoring. The Red Devil DN required snag monitoring. Were there really no snag monitoring requirements for the project area in any past NEPA document? Did the FS carry out any promised surveys in the project area?*

Response: The DEIS appears to include a misstatement regarding the lack of snag surveys for activities in the aforementioned sales. As described in the response to the identical comment published in FEIS (p.19), within the project area boundary, snags were monitored as part of the Rice Paddy, Stevens Blacktail, and Southwest Pilgrim timber sales. Pre-harvest surveys were conducted in two units in the Red Devil Sale. No post-harvest snag surveys have been conducted to date in the Smeads-Rice or Red Devil Sales.

I find the Forest has monitored snags in areas of previous timber sales. Not yet monitoring recent sales does not constitute a violation regarding site-specific monitoring of snags.

Issue 11: IMPACTS TO FISHER, GOSHAWK AND OTHER SPECIES OF CONCERN ARE INADEQUATE

Issue 11, Contention A. *The DEIS fails to disclose how past actions have "provided for habitat diversity" specifically for fisher.*

Response: NFMA directs that the National Forest System be managed to provide for a diversity of plant and animal communities to meet multiple-use objectives. NFMA also directs adherence to Forest Plan. The fisher is a sensitive species and the Kootenai FP goal for sensitive species (USDA FS KNF FP Vol. 1, II-1, #6) is "Determine the status of sensitive species and provide for their environmental needs as necessary to prevent them from becoming threatened or endangered."

The DEIS analysis concludes that the proposed action will not likely result in a trend toward federal listing or reduced viability for the fisher (DEIS p. 3-98). I find the Forest is in compliance with NFMA direction for providing for a diversity of plant and animal communities and is in compliance with NFMA requirements for following the Kootenai FP goals for sensitive species.

Issue 11, Contention B. *The DEIS does not state how the home range (including nesting and post-fledging territories) of the nesting goshawks would be managed consistent with the numbers recommended by Reynolds et al., 1992. This should be addressed for both project area territories. How does the current data on 36 nest sites on the KNF (five sites no longer in use) inform the FS as to the* ***quality of*** *the 752,296 acres of goshawk habitat on the KNF (Johnson, 2004 – DEIS at 3-79)? The DEIS does not cite the results of monitoring on the KNF that would help settle the conflicting findings about whether or not logging in goshawk nest stands affects occupancy or nesting success. It seems logical that this would be a key monitoring question on the KNF.*

Response: NFMA directs that the National Forest System be managed to provide for a diversity of plant and animal communities to meet multiple-use objectives. NFMA also directs adherence to Forest Plan.

Based on Bush and Lundberg (2008), the KNF includes 63,694 acres of post-fledging habitat (3.6% of the forest); that is enough habitat for 107 to 215 goshawk pairs (FEIS Response to Comments p. 22). The DEIS analysis concludes that the proposed action will not impact the Kootenai Forest's or the Region's ability to support a viable northern goshawk population (DEIS p. 3-83). I find the Forest is in compliance with NFMA direction for providing for a diversity of plant and animal communities.

Issue 11, Contention C. *The DEIS does not provide any estimates, based on past experience, on how many of the 530 acres of designated old growth proposed for prescribed burning would be expected to lose old growth character due to the not always precise nature of fire application.*

Response: As discussed in the Response to Comment (FEIS, p. 23), the DEIS (p. 3-55) explains how prescribed burning is expected to maintain the old growth structure by restoring the stand to historical stocking levels. Incidental mortality to overstory trees will create snag habitat (p. 3-146). Should results not be as expected, there is a contingency plan to designate other stands as replacement old growth (DEIS, p. 3-55). I find the Forest is in compliance with NEPA direction for disclosing expected environmental effects due to proposed actions.

Issue 11, Contention D. *The DEIS discloses that "have the potential to disturb or reduce day roosting habitat (trees and snags with cavities or thick bark)" of the Townsend's big-eared bat. The DEIS provides no discussion as to the quality and quantity of habitat needed to maintain viable populations, nor does it provide quantitative discussion of impacts on Townsend's big-eared bat habitat or viability. The same criticism is valid for the DEIS's analysis of cumulative effects on the western toad.*

Response: NFMA directs that the National Forest System be managed to provide for a diversity of plant and animal communities to meet multiple-use objectives. NFMA also directs adherence to Forest Plan. The Townsend's big-eared bat and the western toad are sensitive species and the Kootenai FP goal for sensitive species (USDA FS KNF FP Vol. 1, II-1, #6) is to "Determine the status of sensitive species and provide for their environmental needs as necessary to prevent

them from becoming threatened or endangered."

The Townsend's big eared bat is analyzed in detail in the DEIS (pp. 3-103 to 3-105). This section includes description of the existing condition/affected environment in the context of this species. In addition, the western toad is also analyzed for potential cumulative impacts (DEIS, p. 109). Both analyses disclose no discernible direct, indirect, or cumulative impacts to either species.

I find the Forest is in compliance with NFMA direction for providing for a diversity of plant and animal communities and for following the Kootenai FP goals for sensitive species. The analysis is in compliance with NEPA.

Issue 11, Contention E. *The DEIS does not state the best scientific information it is relying upon to declare that flammulated owls or wolverines are not suspected to occur in the project area.*

Response: NEPA implementing regulations of 1500.1(b) regarding using high quality information that is available to the public are applicable to this contention. However, there is no expectation to provide an exhaustive list of all forms of information to prove the negative.

Table 3-20 in the DEIS (p. 3-85) states there is no wolverine denning habitat in the project area and that there is no suitable habitat for flammulated owl in the project area. The ROD (p. 34) states that there have been no reported sightings of wolverine in the project area. References are included in the project record, and contain at least three scientific documents regarding habitat for wolverine (PF, Vol. 6.1, Docs. 056, 135, 138).

Flammulated owl habitat is xeric, open ponderosa pine and Douglas-fir stands; the DEIS (p. 1-4) describes current forest conditions in the proposed treatment areas as generally dense Douglas-fir. References are included in the project record, where there are at least three scientific documents regarding habitat for flammulated owl (PF, Vol. 6.1, Docs. 143, 144, 208). Samson 2006 indicates that native habitat for the flammulated owl is naturally limited on the Kootenai NF.

I find the Forest is in compliance with NEPA implementing regulations at 40 CFR 1500.1(b) in that the FS used high quality information on which to base its analysis.

Issue 11, Contention F. *The DEIS is scientifically deficient to claim that project effects will not affect habitat for black-backed woodpeckers. Given that the FS has never disclosed the forestwide cumulative effects of fire suppression and insect and disease prevention on viability of species like black-backed woodpeckers, the DEIS's lack of analysis of the direct and indirect effects of those actions and policies in renders it out of compliance with NEPA. The DEIS does not disclose a reference condition or HRV for black-backed woodpecker PPI prior to past management actions.*

Response: NFMA directs that the National Forest System be managed to provide for a diversity of plant and animal communities to meet multiple-use objectives. NFMA also directs adherence to Forest Plans. The black-backed woodpecker is a sensitive species and the Kootenai FP goal for sensitive species (USDA FS KNF FP Vol. 1, II-1, #6) is to "Determine the status of sensitive species and provide for their environmental needs as necessary to prevent them from becoming threatened or endangered."

The DEIS (p. 3-92) states that the effects of the proposed action would change habitat available to black-backed woodpeckers in the project area by +/-1 pair. The calculations that this assessment is based on is found in the Project File (Vol. 6, Docs. 045 and 056). Samson (2006) concluded that even with salvage harvest and other human disturbance, the Region has sufficient habitat to support a viable population of black-backed woodpeckers (pp. 52 to 53).

I find the Forest is in compliance with NFMA direction for providing for a diversity of plant and animal communities and is in compliance with NFMA requirements for following the Kootenai FP goals for sensitive species.

Issue 11, Contention G. *For the fisher, scientific bases for conservation strategies are found in Witmer, et al., 1998, Jones (undated), and Johnsen, 1996. A multi-species approach for forest carnivores is illustrated in Ruggiero, et al., 1994.*

Response: The appellant appears to imply that the Kootenai National Forest does not have a scientific basis for assessing effects to fisher. NFMA directs that the National Forest System be managed to provide for a diversity of plant and animal communities to meet multiple-use objectives. NFMA also directs adherence to Forest Plans. Fisher is a sensitive species in the Northern Region and the Kootenai FP goal for sensitive species (USDA FS KNF FP Vol. 1, II-1, #6) is to "Determine the status of sensitive species and provide for their environmental needs as necessary to prevent them from becoming threatened or endangered."

Available to the appellant in his copy of the project record are the following documents regarding fisher considered and/or cited in the Pilgrim Creek EIS and ROD: Heinemeyer and Jones 1994 (Vol. 6.1, Doc. 044), Johnson 2004 (Vol. 6.1, Doc. 056), Jones and Garton 1994 (Vol. 6.1, Doc. 059), Powell and Zielinski 1994 (Vol. 6.1, Doc. 126), Ruediger 1994 (Vol. 6.1, Doc 135), and Samson 2006b (Vol. 6.1, Doc. 144). Clearly the project wildlife biologist is informed by sound science regarding fisher habitat, ecology, and conservation.

The ROD outlines design criteria that would maintain important habitat components for fisher and would be followed. These include: adequate levels of coarse woody material to provide for cavity-associated wildlife species, and small mammal habitat (p. 44); large down wood retention would be maintained at 15-30 tons/acre in moist forest habitat treatment areas (p. 45); and all large diameter snags that are felled for safety reasons will remain on site (p. 46).

I find the Forest is in compliance with CEQ regulations directing agencies to consider cumulative effects, NFMA direction for providing for a diversity of plant and animal communities, with NFMA requirements for following the Kootenai FP goals for sensitive

species, and with NEPA in using the best available science.

Issue 11, Contention H. *The EIS fails to come close to a genuine viability analysis for Sensitive and old growth indicator species, such as the pine (American) martin. USDA Forest Service (1990), Ruggiero, et al. (1998) and Bull and Blumton, 1999 form some basis for a marten conservation strategy if that were in fact a priority of the KNF for this MIS.*

Response: American marten is neither a sensitive species nor a MIS for the Forest, and the appellants did not bring up marten during comments; therefore the Forest was not put on notice that the appellants had concerns about American marten. A conservation strategy for American marten on the Kootenai NF is not required.

The Forest is in compliance with NEPA, NFMA, and the Forest Plan.

Issue 11, Contention I. *Pileated woodpeckers are a management indicator species for old growth in the Kootenai National Forest. The Kootenai N.F. has not done adequate monitoring for pileated woodpeckers.*

Response: "The maintenance of viable populations of existing native and desirable non-native vertebrate species, as monitored through indicator species, will be attained through the maintenance of a diversity of plant communities and habitats" (USDA KNF FP II-22). The Kootenai FP (Vol. II, Appendix 12) lists the pileated woodpecker as the management indicator species for snag and old growth timber habitat. Kootenai Forest Plan Monitoring and Evaluation Plan items (Kootenai FP, pp. IV-8 to IV-9) that apply to old growth and pileated woodpeckers are: C-4 "maintain viable population of old growth dependent species (greater than or equal to 40% of potential)"; C-5 "maintain habitat capable of supporting viable populations of old growth dependent species (10% old growth in each drainage)"; C-6 "maintain habitat capable of supporting viable populations of cavity nesters (greater than or equal to 40% of potential)"; and C-8 "maintain indicator species above minimum viable population levels for the Forest as a whole". The Kootenai FP prescribes these monitoring items to be reported every two to five years.

The KNF Monitoring Report 2007 (USDA FS KNF 2008, pp. 20 to 38 and pp. 50 to 52) describes the monitoring and evaluation completed for each of these items. The KNF Monitoring Report 2010, (USDA FS KNF 2011, pp. 2 to 16) also describes the monitoring and evaluation completed for item C-5. The monitoring results for pileated woodpecker conclude that: "Hutto's report, the preliminary population transects, and Forest staff observations all point to the same consistent interpretation, that pileated woodpeckers are ***widespread and are relatively common*** (emphasis added) on the Kootenai National Forest. The information available at this time does not indicate that a significant downward trend approaching 40% of population potential is occurring.

Information for the Region is similar for pileated woodpecker as well as the two other species which are dependent on old growth for a portion of their lifecycle" (USDA FS KNF 2008, p. 23).

Pileated woodpecker was included in the Northern Region Landbird Monitoring Program on the Kootenai NF, with results published in 2003 and 2008 (PF, Vol. 6.1, Docs. 215 and 209). Pileated woodpecker nest characteristics are distinctive, and nests are commonly noted during field examinations on the district and in the project area (e.g. PF, Vol. 6, Doc. 061). Additionally, the wildlife analysis for pileated woodpecker based on population potential for available old growth habitat (DEIS, p. 3-74 to 3-77) concludes the pileated woodpecker population potential would not be changed by the project. The DEIS (p. 3-78) asserts that because sufficient old growth, snag, and down wood habitat for pileated woodpeckers is available, populations of other species using that habitat should remain viable, also.

I find the Forest is in compliance with the Kootenai FP standard for maintaining viable populations of old growth dependent species by providing sufficient habitat for the pileated woodpecker. The Forest Service is also in compliance with the Kootenai FP monitoring and evaluation plan by reporting findings for population viability of pileated woodpecker.

Issue 11, Contention J. *The EIS does not adequately consider cumulative effects on upland habitat for boreal toads. This does not make sense, since such small populations that are likely to persist are especially susceptible to fragmentation and extirpation due to isolation of smaller populations. See Maxell, 2000. In fact, the Pilgrim Project NEPA documents have no genuine analysis of cumulative impacts of logging activities on boreal toads at all.*

Response: The Council of Environmental Quality regulations implementing NEPA require that all federal agencies consider cumulative actions in determining the scope of an environmental impact statement (40 CFR 1508.25).

The DEIS analyzed the potential cumulative impacts on western toad (DEIS, p.3-109). Maxell 2000 is indeed cited in the analysis (DEIS, p. 3-108) in the western toad discussion regarding timber harvest. I find the Forest is in compliance with CEQ regulations for considering cumulative effects.

Issue 11, Contention K. *The DEIS (p. 3-95) states, "Fisher observation and monitoring data indicates that there have been no sightings of fisher in Pilgrim planning subunit. Remote cameras were placed throughout the PSU for a total of 595 camera Nights in an attempt to document the presence of forest carnivores. No pictures of fisher were taken. Johnson (1999) shows fisher presence confirmed in five of the eight planning units on the Kootenai."*
Based on the past harvest in the Project Area, it appears that habitat suitability for the fisher has been severely restricted by habitat fragmentation. Yet the agency failed to evaluate this impact, which means their conclusions that the Project will not significant impact the fisher is flawed.

Response: The Council of Environmental Quality regulations implementing NEPA require that all federal agencies consider cumulative actions in determining the scope of an environmental impact statement (40 CFR 1508.25). The NFMA directs that the National Forest System be managed to provide for a diversity of plant and animal communities to meet multiple-use objectives. NFMA also directs adherence to Forest Plan. Fisher is a sensitive species and the

Kootenai FP goal for sensitive species (USDA FS KNF FP Vol. 1, II-1, #6) is to "Determine the status of sensitive species and provide for their environmental needs as necessary to prevent them from becoming threatened or endangered."

Past harvest was considered in the existing condition (DEIS, pp. 3-95 to 3-96). The project effects to fisher are analyzed in detail in the DEIS (pp. 3-95 to 3-98). The project would not affect high quality old growth habitat (DEIS, p. 3-96). The project would affect up to 306 acres of identified potential fisher habitat, which is about four percent of existing condition (PF, Vol. 6, Doc. 009).

I find the Forest is in compliance with CEQ regulations directing agencies to consider cumulative effects, NFMA direction for providing for a diversity of plant and animal communities, and is in compliance with NFMA requirements for following the Kootenai FP goals for sensitive species.

Issue 11, Contention L. *The KNF provides inadequate management strategies to insure viability of the pine marten. Ruggiero, et al., 1998 and Bull and Blumton, 1999, indicate that vertical and horizontal diversity provided by snags and large down woody debris are important habitat characteristics for the pine marten, another MIS wildlife species on the KNF. The kind of "treatments" proposed would reduce the availability of prey species for the marten.*

Response: American marten is neither a sensitive species nor a MIS for the Forest, the appellants did not bring up marten during comments, and therefore the Forest was not put on notice that the appellants had concerns about martens.

The Forest is in compliance with NEPA, NFMA, and the Forest Plan.

Issue 12: THE AGENCY FAILED TO COMPLETE AN ENVIRONMENTAL IMPACT STATEMENT TO ADDRESS THE CUMULATIVE IMPACTS OF FOREST MANAGEMENT ON LYNX HABITAT.

The DEIS indicates that project activities would affect suitable habitat for Canada lynx, so it is not logical that the project would have "no effect."

The lynx population in Montana is currently believed to be declining (Squires 2009, Squires 2010). Any habitat loss will exacerbate this decline. The proposed project will also increase habitat fragmentation for lynx. Since lynx will not cross opening (Squires et al. 2010), and possibly thinned forest in the winter (Squires et al. 2010; LCAS 2000, Glossary at 5), fragmentation will be exacerbated by the Project. The proposed Forest Service management program and analysis for lynx in the Project analysis and Project Area will violate the ESA, the NEPA, the APA and the NFMA.

The Kootenai National Forest acknowledges that the Project Area is occupied lynx habitat (DEIS p. 3-120). But claims no lynx have been cited in the project area even thought the project

area has Lynx Analysis Units (LAU) in the project area. Since the Kootenai National Forest is considered occupied the whole Forest is considered occupied. The Pilgrim Project is in violation of NEPA, NFMA, the APA and the ESA when it considers to project are unoccupied.

The DEIS notes on page 3-121, "The primary limiting factor for this species appears to be suitable foraging habitat. Primary winter foraging habitat is found in multi-story mature or late-successional forest that hold good populations of snowshoe hare." The DEIS notes that lynx tracks were found in the Cabinet Ranger District in 1998, approximately 8 miles north of the project area (DEIS p. 3-121). The DEIS says the project is complying with Standard All S1 which requires habitat connectivity must be maintained (DEIS 3-124). But on p. 3-125 it says there are no identified linkage corridors to the Planning sub-unit or potentially impacted LAUs. This is a contradiction and violates NEPA, NFMA, the Forest Plan and the ESA.

The agencies failed to provide a biological opinion for the Project. The Forest Service claims that the Project will not adversely impact the lynx, and thus they did not complete formal consultation with the USFWS. They therefore have no incidental take statement, or no biological opinion for the Project. The 2007 Biological Opinion for the NRLMD is invalid for the current Project, because of significant changes since the NRLMD BiOp was completed. The importance of key winter lynx habitat was not clearly identified or assessed in the NRLMD FEIS. And in addition, the impacts of habitat fragmentation, which have become more clear with more recent research (Squires et al. 2010), demonstrate the severe impacts that may result on lynx from forest thinning and regeneration. Finally, at the time of the NRLMD BiOp, it was not noted that the lynx population in Montana is suspected to be declining (Squires 2009, Squires 2010). All these factors render the 2007 BiOp for the NLRMD invalid. A new updated BiOp is required, including for the Pilgrim Project and new consolation on the NRLMD.

Response: An EIS, including a cumulative effects analysis, was completed on the Forest Plan when the Northern Rockies Lynx Management direction was amended into the Kootenai Forest Plan in March of 2007. A Biological Assessment was competed for federally-listed species and submitted to the USFWS. USFWS issued a Biological Opinion (NRLMD ROD, p. 42). The Kootenai Forest Plan is in compliance with ESA. The importance of winter habitat is clearly addressed in the NRLMD. In fact, Standard VEG S6 (NRLMD ROD, Attachment 1, p. 4), which is not found in the earlier Lynx Conservation Assessment and Strategy (LCAS), was developed for the NRLMD (FEIS, pp. 145 to 152) when research showed winter snowshoe hare habitat was important for lynx. The NRLMD and the Forest Plan are in compliance with ESA.

The Pilgrim Creek DEIS is correct in indicating there are no linkage areas identified for the project area. The NRLMD Figure 1-1 is the map that indicates linkage areas, and there is no linkage area shown in the project area on that map. However, projects are still required by NRMLD Standard ALL S1 to maintain habitat connectivity in an LAU. The DEIS indicates that connectivity is generally good to the north, south, and west, and remains that way under all action alternatives (DEIS, p. 3-124). There are no contradictions and the analysis is in compliance with NEPA, NFMA, ESA, and the Forest Plan.

The Pilgrim Creek project is in occupied lynx habitat. However, the DEIS (pp. 3-112 and 3-121) points out that while suitable habitat exists in the project area no lynx have been found in the

area. The analysis does ***not*** say the project area is unoccupied. Regardless of whether or not lynx use the area, the EIS (DEIS pp. 3-124 to 3-129 and FEIS, Appendix L) analyzes the impact the project would have on lynx habitat and demonstrates the project is in compliance with the NRLMD as amended into the Kootenai Forest Plan. The potential harvest units that contained multi-storied winter foraging habitat were dropped from the alternatives (DEIS, p. 3-127) in order to comply with NRLMD Standard VEG S6. The wildlife biologist analyzed the impact the project would have on lynx based on the impact the project would have on lynx habitat (not on whether or not lynx were present in the area), and found the project "may affect, but is not likely to adversely affect the Canada lynx. The proposed federal action will not affect designated Canada lynx critical habitat." This BA was submitted to USFWS and they concurred with the determination (FEIS, Appendix L). Since the determination was "not likely to adversely affect lynx" only informal consultation was required, and a Biological Opinion was not required, or issued.

The Biological Assessment for Canada lynx (FEIS, Appendix L) and the Canada lynx discussion in the DEIS (pp. 3-120 to 3-130) does not appear to consider Squires 2009 and Squires 2010, which is presented to the Forest for the first time in this appeal. The analysis does address maintaining habitat connectivity, but does not discuss fragmentation or lynx populations (Squires 2009 and Squires 2010). I recommend the Forest review Squires 2009 and Squires 2010 and determine whether the BA and EIS need to be updated in light of this information.

Issue 13: *The Forest is quite aware of the need for the data gathered to support its analyses to be consistent and therefore reliable. In its "Response to Motion for Preliminary Injunction" brief in litigation on the Kootenai NF, stated in regards to a scientific report it was criticizing: "(Its) purported 'statistical analysis' reports no confidence intervals, standard deviations or standard errors in association with its conclusions." As pointed out in our above cite of Huck (2000), the notion of "standard deviations or standard errors" that the FS brought up in the context of litigation relates to the reliability of the data, which in turn depends upon how well-trained the data-gatherers are with their measuring tools and measuring methodology. In other words, different observations of the same thing must result in numbers that are very similar to result in small "standard deviations or standard errors" and thus high reliability coefficients, which in turn provide the public and decision makers with an idea of how confident they can be in the conclusions drawn from the data.*

Response: For nearly five pages in the appeal the appellant discusses the need for scientific integrity. However, at no point in the appeal does he tie this general discussion of scientific integrity to the Pilgrim Creek Timber Sale project. In the ROD (p. 38) the Forest Supervisor also discusses scientific integrity. He states, "Throughout Chapter 3 of the DEIS each specialist on the Interdisciplinary Team focused on use of scientific information which was relevant or applicable to the resource field, as reflected in the analysis documentation…Reference citation are found throughout the DEIS, indicating how the analysis is tiered to relevant science." The project and analysis are in compliance with 40 CFR 1500.1(b).

RECOMMENDATION

I have reviewed the record for each of the contentions addressed above and have found that the analysis and decision adequately address the issues raised by the appellant. I recommend the Forest Supervisor's decision be affirmed and I also recommend the Forest review Squires 2009 and Squires 2010 and determine whether the BA and EIS needs to be updated in light of this information. I further recommend the appellant's other requested relief be denied.

Julie K. King

JULIE K. KING
Forest Supervisor

cc: Paul Bradford, Janis L Bouma, Ray G Smith, Allen Byrd