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Subject: ARO Letter - Seeley Lake Fuels Reduction Project DN - Lolo NF - Appeal #04-01-00-0021 - Alliance for the Wild Rockies, et al.

To: Appeal Deciding Officer

This is my recommendation on disposition of the appeal filed by Michael T. Garrity, on behalf of Alliance for the Wild Rockies and The Ecology Center, protesting the Seeley Lake Fuels Reduction Project Decision Notice (DN) on the Lolo National Forest (Seeley Lake Ranger District).

The Forest Supervisor's decision adopts Alternative B, which includes commercial harvest on 1,333 acres, fuels treatments on 2,814 acres, 2.2 miles of temporary road construction, 16 miles of road reconstruction, 11 miles of road closure and obliteration, replacement of three culverts, removal of one culvert, and weed spraying on 15 miles of roadside and 46 acres of disturbed ground.

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 appellants' 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 appellants allege violations of the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), the Endangered Species Act (ESA), the Multiple Use Sustained Yield Act (MUSYA), the Clean Water Act (CWA), the Forest and Rangeland Renewable Resources Planning Act (RPA), the Administrative Procedures Act (APA), and the Forest Plan. The appellants request a remand of the DN. An informal meeting was held but no resolution of the issues was reached.

ISSUE REVIEW

Issue 1. The wildfire prevention analysis of tradeoffs between removing or retaining the large-diameter snags and logs is incomplete and violates NEPA.

Response: The vegetation specialist report (PF, Doc. C-8.14, pp. 14 to 15) states, "all harvest prescriptions would emphasize retention and development of trees to function as...future snag replacement. All prescriptions will incorporate the Lolo National Forest Dead and Down Habitat Guidelines, 1997" and "all harvest units would retain 8-20 tons per acre of downed woody material to provide nutrient recycling and habitat for mammals and invertebrates." The EA (p. 51) states, "Since all action alternatives are designed to retain large diameter trees and [coarse woody debris], there would be *no effect* on pileated woodpeckers. The action alternatives reduce the potential of a stand replacing fire and subsequently recruit large diameter trees. Therefore,



they result in long-term benefits to pileated woodpeckers and associated species” (emphasis in original). The Response to Comments (DN, App. A, p. 21) states, “In the proposed regeneration harvest, all existing snags would be retained, and Lolo National Forest snag guidelines would be implemented.” The snag analysis is complete and in compliance with NEPA.

Issue 2. The harvest treatment descriptions clearly indicate that logging, not fuel reduction, is the priority. No defensible maximum tree diameter is proposed.

Response: The vegetation specialist report (PF, Doc. C-8.14, p. 15) states, “All of the action alternatives would harvest and utilize varying quantities of green and dead trees. The main objectives of the alternatives is (sic) for fuels reduction, and therefore the smaller diameter trees are the primary focus. As a result, volumes to be removed are less than would be anticipated for a harvest with timber production objectives.” Depending on the harvest treatments, trees to be cut would be based on spacing, species, competition, and occurrence of insects and disease (EA, p. 11), not what makes the best log.

Issue 3. Forest Service research (Cohen, 1999) has determined that the most significant factor determining whether homes and other buildings might burn are the structure’s ignitability, not the fuel situation on the adjacent national forest.

Response: The fuel specialist report recognizes the important work Cohen has done on structure ignitability (PF, Doc. C-2.5, pp. 6 and 7). However, the federal government has a responsibility to control fire moving from federal to nonfederal lands. The purpose of this project is to address fuel loading and to provide for fire suppression opportunities. As quoted in the fuel specialist’s report, Cohen (1999) states, “Reducing the fuel loading, fuel continuity, and the availability of ladder fuels (on both national forest and private lands) would keep fire confined to the ground, reduce fire intensity, reduce firebrands, and afford a high probability of control through the use of engines, hand crews, and air tactical resources. To reduce threat of ignition from firebrands, fuels need to be reduced both near and at some distance from the structure. Firebrands that result in ignitions can originate from wild-land fire that is a distance of 1 kilometer or more.” Obviously managing wildland fire is more than treating the last few hundred feet around individual structures.

Issue 4. The EA is improperly biased against the no-action alternative. There is no quantification of “the chance of a fire escaping the initial response efforts and becoming a large fire” for any alternatives—no valid comparisons between alternatives are made.

Response: There are too many factors involved in whether or not a fire escapes initial response efforts to quantify the chance. These factors include, but are not limited to various weather conditions, fuel loading, fuel moisture, terrain, response time, and type of response. This project is involved in affecting one of the few items in the aforementioned list we have control over—fuel loading. The EA does compare the number of acres of fuels treated for the alternatives (EA, p. 39). That is a valid comparison among the alternatives.

Issue 5. Before approving a further set of activities that are known causes of ecosystem damage, such as logging, road construction and motorized access, the Forest Service must

complete the revision of the Forest Plan in order to elucidate a truly sustainable ecological vision of forest management. The Forest Service proposes to continue to implement a Forest Plan that has expired, both legally and ecologically. Project-level decisions based upon an out-of-date Forest Plan and in an absence of adequate monitoring are inadequately informed, are likely illegal, and will result in more of the same kind of damage that has occurred continuously under the first Forest Plan. The EA does not adequately analyze the ecosystem effects of foreseeable actions on land of all ownerships in the vicinity of the proposed project.

Response: On November 10, 2003, the President signed the Department of the Interior and Related Agencies FY04 Appropriations Act, H.R.2691, P.L.108-108. Section 320 (p. 66 of H.R. 2691) states, “Prior to October 1, 2004, the Secretary of Agriculture shall not be considered to be in violation of subparagraph 6(f)(5)(A) of the Forest and Rangeland Renewable Resources Planning Act of 1974 [16 U.S.C. 1604(f)(5)(A)] solely because more than 15 years have passed without revision of the plan for a unit of the National Forest System.”

The Lolo National Forest is in the process of Forest Plan revision at this time. Congress did not intend management to cease if the 15-year date for plan revision was not met. NFMA, Section 1604(c), illustrates this point. In the development of the original Forest Plans, Congress specifically allowed management of the forests to continue under existing resource plans pending approval of the first NFMA Forest Plan for each administrative unit. On several occasions, Congress allowed management to continue under the existing resource plans while work to complete the original Forest Plans was underway (see, e.g. 16 U.S.C. 1604 note), demonstrating Congress’ intent that on-the-ground forest management continue while the agency developed programmatic planning documents. On other occasions Congress halted funding for Forest Plan revisions (delaying the completion of plan revisions) without halting any site-specific projects or activities. Appellants’ arguments that resource management must be halted pending completion of plan revision are contrary to Congressional intent.

In Chapter 3 of the EA each resource discussion describes the affected environment that is being analyzed for direct, indirect, and cumulative effects. As necessary, each analysis includes land of various ownerships in the discussion (see, for example, Air quality, p. 39; Recreation, pp. 40 to 41; Roads, p. 43; and Scenery management, p. 58).

Issue 6. There is a gaping lack of empirical studies of the effectiveness of thinning for fuels reduction as applied in the field. “The most debated response to alleviating future fires—mechanically thinning trees—has had limited study” (Christensen, et al., 2002). Researchers for the federal government’s Joint Fire Science Program pointed out last year that “[t]he lack of empirical assessment of fuel treatment performance has become conspicuous” (Omi & Martinson, 2002). The authors, after canvassing the existing scientific literature, concluded that, other than theirs, only one study “included both statistical analysis and comparison of stand conditions in treated and untreated areas such that differential fire effects could be directly related to the intensity of fuels manipulation” (Id.).

Response: The Response to Comments (DN, Appendix A, p. 2) discusses this issue. In their publication, Omi & Martinson, 2002, also say their study found that “[t]aken together, the results for the 4 sites sampled in this research provide strong evidence of fuel treatment efficacy...” Also of note is the release of a General Technical Report by the Rocky Mountain Research Station entitled, *Science Basis for Changing Forest Structure to Modify Wildfire Behavior and Severity* (Graham, Russell T.; McCaffrey, Sarah; Jain, Theresa B. (tech. eds.) 2004. Gen. Tech. Rep. RMRS-GTR-120. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 43 pp. The report shows that fuel treatments reduce the threat of intense fires, which is the purpose and need of this project.

Issue 7. The EA fails to disclose that fuels reduction projects can increase, rather than decrease, subsequent fire effects. Numerous other reviews and reports, many of them generated by the federal government and cited in the appeal, confirm the scientific uncertainty surrounding how thinning actually affects subsequent fire intensity.

Response: The Response to Comments (DN, Appendix A, p. 5) discusses this issue. The studies the appellants cite concern timber harvest or thinning for purposes other than fuel reduction. In this project, the proposed treatments include activities that remove much of the smaller trees in order to remove the surface fuel loads. The majority of the sites in the project area do not support abundant shrub production, but are primarily grass, forb, and low shrub dominated. Once the heavy fuel loading is removed the fuels that are left will allow for a safer wildfire management situation, which can easily be controlled EA (pp. 38 to 39).

Issue 8. Thinning “can also significantly alter nutrient storage and turnover in the modified stands” (Graham, et al., 1999). Especially on dry sites this can cause nutrient shortage and damage site productivity (Id.). This and many other adverse consequences to soil, ecological processes, wildlife, and other elements of the natural environment are associated with logging, including thinning (Ercelawn, 1999; Ercelawn, 2000). For example: “Salvage or thinning operations that remove dead or decayed trees or coarse woody debris on the ground will reduce the availability of forest structures used by fishers and lynx” (Bull, E., et al., 2001). Conversion of closed canopy stands to more open conditions may reduce habitat quality for fishers, and loss of understory structural diversity would be detrimental to lynx prey, while the increased human presence and other disturbance factors associated with fuels reduction are “likely to have an adverse effect on rare forest carnivores” (Id.). The impact of ecotone reduction on travel corridors and foraging habitat for the lynx were never evaluated.

Response: The Response to Comments (DN, Appendix A, p. 5) discusses this issue. None of the sites being proposed for management are dry sites where nutrient storage is a concern. Retention of the litter and duff, as well as the coarse woody debris would meet Forest Plan standards, and will ensure continued structure and nutrients availability are provided.

The analysis for lynx considered impacts to foraging and denning habitat, as well as travel corridors from implementation of the project (PF, Doc. C-11.1, pp. 5 to 8). The wildlife biologist concluded the project is not likely to adversely affect lynx (EA, p. 55; PF, Doc. C-11.4, pp. 5 to 8).

The wildlife report indicates the project would have no effect on fisher (PF, Doc. C-11.6, p. 28).

Issue 9. The portrayal of insects and tree diseases as essentially negative parts of the forest ecosystem imparts a timber production bias. These organisms have always played a part of a healthy forest within the project area. This “saving” of the forest trees from diseases and insect infestations has been demonstrated to have deleterious effects on species dependent upon forest insects and diseases.

Response: The project is not intended to save the forest from insects and diseases. The EA (pp. 33 to 37) recognizes that insects and diseases do kill trees, which adds to the fuel loading. They are one of the many factors that have led to the present fuels situation in the Seeley Lake area.

Issue 10. The Seeley Lake EA and DN did not take a hard look at the conditions of the forest floor. Without on-the-ground surveys, indirect, direct, and cumulative effects on soils cannot be ascertained. This is a violation of NEPA. The EA and the DN did not disclose the Forest Service inventory or monitoring of indicators, including lichens, fungi, insects, etc. as required by NEPA, the Forest Plan and NFMA. Enumeration and monitoring of specific small, non-game birds and animal populations that are important in keeping destructive insect populations at low levels were not disclosed as required by NFMA and the Forest Plan.

Response: Field site visits were done to examine soils in the project area (PF, Docs. C-3.7 and C-3.14, pp. 9 to 17). All action alternatives include mitigation measure to reduce compaction and displacement in order to meet soil standards (EA, p. 49). The Forest is only required to monitor and determine impacts on management indicator species (MIS). Discussion of MIS is included in the wildlife section of the EA (pp. 50 to 52).

Issue 11. The Seeley Lake Fuels Reduction Project EA or DN has no empirical evidence to indicate its treatments will increase forest health.

Response: The EA discusses forest health as part of the vegetation section (pp. 33 to 37), but the intent of the project is fuel reduction (EA, p. 1), not to increase forest health. The discussion is sufficient for the purpose and need of the project.

Issue 12. Annosus root disease is often fatal or damaging for pine, fir, and hemlock in western forests, and has increased in western forests as a result of logging (Smith, 1989). Armillaria, a primary, aggressive root pathogen of pines, true firs, and Douglas-firs in western interior forests, spreads into healthy stands from the stumps and roots of cut trees (Wargo and Shaw, 1985). Live trees infected with laminated root rot have a greater likelihood of attack by Douglas-fir beetles. Also, Douglas-fir trees weakened by black-stain root disease are attacked and killed by a variety of bark beetle species.

Response: The Response to Comments (DN, Appendix A, p. 10) indicated root diseases are not evident in any of the specific units. Mountain pine beetles and Douglas-fir beetles are known in

the project area, and the proposed treatments will help to reduce the potential for increased tree mortality from these insects.

Issue 13. The EA did not disclose the environmental baseline for watersheds in violation of NEPA, NFMA, and the Clean Water Act.

Response: The EA (pp. 45 to 46) and the project file (Doc. C-3.14) discuss the existing condition of the watershed.

Issues 14, 28, 29, 30, 35, and 36. Actions that risk further pollution in Water Quality Limited Segments (WQLS) are not consistent with the Clean Water Act or State water quality regulations. The project would further damage the cold water fishery, which is considered a beneficial use. The EA fails to ensure population viability of bull trout and westslope cutthroat trout in violation of NFMA, and fails to show compliance with the Forest Plan as amended by INFISH.

Response: Thirty miles of streams in the Clearwater-Salmon watershed were listed as WQLS in 1996 (PF, Doc. C-3.14, p. 3). As of the 2000 list, only Blanchard Creek is listed (PF, Doc. C-3.14, p. 5). As discussed in the EA (pp. 47 and 48) and the Response to Comments (DN, Appendix A, p. 10), the Montana Water Quality Act states, "Pending completion of a TMDL...new or expanded nonpoint source activities affecting a listed water body may commence and continue provided those activities are conducted in accordance with reasonable land, soil and water conservation practices (MCA 75-5-703)." The Best Management Practices included in the project are found in the project file (Doc. C-3.1).

The fisheries biologist analyzed the impact to fish habitat, and found the project would produce some short term negative effects from sediment, but that the long term effects (beyond 3 years) within the individual drainages and cumulatively throughout the Clearwater-Salmon watershed would have beneficial impacts. The reduction in sediment would result in better survivorship of eggs and young-of-the-year, and would improve over wintering conditions for native fish (PF, Doc. C-3.15, p. 22), which include bull trout and westslope cutthroat trout (EA, p. 46).

The BA for bull trout indicates the project may affect, likely to adversely affect bull trout, but the project would not result in an adverse modification to proposed critical habitat (PF, Doc. C-3.21). USFWS reviewed the BA and issued a Biological Opinion, which stated the project is not likely to jeopardize the continued existence of bull trout in the Columbia River basin (PF, Doc. C-3.22, p. 31) and the project is not likely to destroy or adversely modify proposed critical habitat in the Columbia River basin (PF, Doc. C-3.22, p. 32). The terms and conditions the USFWS imposed on the project are incorporated into the DN (p. 7).

Issue 15. Several concerns have arisen since Forest Plans had been amended by INFISH. The NEPA analysis should have disclosed these problems and identify the obvious implications of Forest Plan inadequacies in protecting habitat and populations of native fish species.

Response: Inadequacies of Forest Plans are addressed during forest planning or with significant amendments of a Forest Plan, not in project specific analyses. Projects are required to be in compliance with Forest Plans. This project is in compliance with the Forest Plan, as amended by INFISH (EA, p. 49).

Issue 16. The analysis should have covered a large enough area to include a cumulative effects analysis area that would include truly viable populations. Analyses must identify viable populations of indicator, TES, at-risk, focal, and demand species of which the individuals in the analysis area are members in order to sustain viable populations.

Response: The EA indicates the cumulative effects boundary for wildlife is the entire Seeley Lake Ranger District (p. 50). This boundary encompasses sufficient territories and activities to analyze the impacts. The EA analyzes impacts to threatened species, MIS, and Sensitive species (pp. 50 to 58).

Issue 17. The NEPA analysis must disclose the results of monitoring population trends of TES plants before the public review process is completed. The impacts of various silvicultural treatments on nearby TES plants populations must be monitored, reported, and considered in NEPA analysis.

Response: The EA disclosed the analysis and survey results for all TES plants known from the area (pp. 41 and 42). The project record (Docs. C-5.1, C-5.2, and C-5.2) contains the survey protocol, maps of the survey locations, and discussion of potential habitat for the species.

Issue 18. The EA and DN failed to cite any evidence that its logging of old growth will improve old growth species habitat over the short term or long term, in violation of NEPA and NFMA.

Response: As discussed in the EA (p. 37) and Response to Comments (DN, Appendix A, p. 16), the only old growth found in the project area is a portion of Unit 1. The fuel reduction treatments in Unit 1 would open the understory and provide a habitat structure similar to the natural structure found with old growth. The treatment would not change the stand characteristics (i.e. number of large trees, snags, and coarse woody debris) that make the stand “old growth.”

Issue 19. Research suggests that it is essential to viability of goshawks that 20 to 50 percent of old growth within their nesting areas be maintained.

Response: As discussed in Issue 18 (above), old growth would be maintained. The EA discusses impacts to goshawk (pp. 51 to 52). The wildlife biologist found the project would affect a minimal amount of goshawk habitat, and overall the proposed activities would improve the habitat for goshawk foraging.

Issue 20. In the western United States, pine marten are most abundant in mature to old growth true fir or spruce fir forests and generally avoid open, drier coniferous forest. Marten are closely associated with mature to old growth timber stands, preferring moist

habitat types where small mammals are more abundant. Fisher occurs most commonly in landscapes dominated by mature to old forest cover.

Response: The wildlife biologist determined there would be no impact to fisher (PF, Doc. C-11.6). As discussed in the vegetation section, open stands of large diameter trees are virtually non-existent in the project area. Instead the project area is dominated by stands of small diameter lodgepole pine, Douglas-fir, and spruce/subalpine fir (EA, p. 33). This is not quality habitat for fisher or marten.

Issue 21. The black backed woodpecker is on the Sensitive species list for the Forest. The Forest Service generally targets large dead trees in logging projects. Dolan (1998b) states in regards to impacts on the black-backed woodpecker due to fire suppression and post-fire logging, “It seems that we have a huge cumulative effects problem here, and that each salvage sale removes habitat that is already very limited. We are having trouble avoiding a ‘trend to federal listing’ call for the BBWO in salvaging burns, unless comparable acres of fire-killed dead are being created through prescribed burns.”

Response: This is not a salvage sale targeting fire-killed trees. The wildlife biologist determined there would be no impact to black-backed woodpecker (PF, Doc. C-11.6, p. 28). Given the fact that bark beetle infestations have been increasing, and the Seeley Lake area and thousands of acres have burned in the very recent past, there have been substantial increases in suitable habitat for this species (DN, Appendix A, Response to Comments, p. 18).

Issue 22. The EA assumes that, in grizzly bear habitat not located in the official recovery area, any development activities will not significantly impact population viability. This is not a sound analysis and is in violation of NEPA, APA, ESA, and NFMA.

Response: The EA analyzes the impacts on grizzly bear (pp. 55 to 57; PF, Doc. C-11.4, pp. 8 to 10). The wildlife biologist determined the project may effect, but is not likely to adversely affect grizzly bear or habitat. USFWS reviewed the BA and concurred with the not likely to adversely affect determination (PF, Doc. C-11.10, p. 2). The grizzly bear analysis is in compliance with NEPA, NFMA, APA, and ESA.

Issue 23. There is no disclosure regarding sizes and condition of openings from past logging in the cumulative effects analysis area, in violation of NFMA, NEPA, APA, the Forest Plan and ESA.

Response: The EA discusses past disturbances, including the extensive harvesting that took place in the early half of the century (p. 33). Since that time the number of newly created openings has been so minor as to be insignificant at the project scale and stand scale, as displayed by the difference between the historic condition and the existing condition (EA, p. 33, Table 3-1). There is no need to pinpoint the size and location of each forest opening in the cumulative effects analysis area.

Issue 24. The Lolo National Forest did not examine the important issue of maintaining soil productivity as NFMA mandates.

Response: The analysis indicates a total of five stands in Units 8, 9, and 10 have been previously harvested and resulted in detrimental soils conditions (EA, p. 46; PF, Doc. 3.7). All action alternatives include harvesting of Units 8, 9, and 10, and the applications of mitigation measures to reduce compaction and displacement of soils, in order to meet Regional Soil Standards (EA, p. 49). The analysis did examine the issue of maintaining soil productivity.

Issues 25 and 31. NFMA and the Forest and Rangeland Renewable Resources Planning Act (RPA) require management of National Forest System lands in a manner that “maximizes long term net public benefits” [36 CFR 219.1(a)].

Response: Maximizing net public benefit refers to Regional- or Forest-wide economic analysis, which is not within the scope of this decision. Project-level economic analyses do not require that non-commodity economic values be addressed. “Weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations” (40 CFR 1502.23). The NEPA process shall be used “...to emphasize real environmental issues and alternatives” [40 CFR 1500.2(b)]. The primary focus at the project-level is to identify socioeconomic implications that are unique to the decisions made at this management level, as was done in the EA (pp. 60 to 61) and project file (Docs. C-1.1 and C-1.2). The project and analysis are in compliance with NEPA, NFMA, and RPA.

Issue 26. The cumulative effect of weed spraying is not adequately analyzed.

Response: The effects of weed spraying are discussed in the EA (pp. 43 and 49) and the project file (Doc. C-3.15, pp. 7 to 10). The weed spraying will be conducted in compliance with Forest Plan Amendment 11 (p. 43).

Issues 27 and 34. The Roadless Areas analysis is incomplete.

Response: By looking at the map of the project area (EA, p. 6) it is clear the project area is completely within the residential-recreational matrix of the valley, intersected by Highway 83 and adjacent to multiple residences, campgrounds, businesses, and recreational facilities. There are no roadless, uninventoried roadless, or unroaded areas in or adjacent to the project area to analyze.

Issues 28, 29, 30, and 31 are discussed above as part of other issues.

Issue 32. The cumulative effects analysis is incomplete and violates NEPA.

Response: Cumulative effects are discussed in the EA (pp. 35 to 37, 40, 42, 48, 54, 56, 58, and 60).

Issue 33. It has been well-established that site-specific Biological Evaluations (BEs) must be prepared for all actions such as this.

Response: In a letter to the Forest Supervisors in Regions 1, 4, and 6, dated August 17, 1995, Regional Foresters Salwasser, Bosworth, and Lowe discussed streamlining Biological Evaluations. They stated, “Information currently found in biological evaluations (for sensitive species only), including the documentation of effects and the rationale for conclusion will be consolidated into the main text or appendix of the EA or EIS. There will no longer be a need to have ‘stand alone’ biological evaluations for sensitive species” (p. 1 of the letter). The BE for this project is contained in the EA wildlife discussion (EA, pp. 50 to 52). Supporting information can be found in the project file (Doc. C-3.15).

Issues 34, 35, and 36 are discussed above as part of other issues.

RECOMMENDATION

I have reviewed the record for each of the contentions addressed above and have found that the analysis and decision address the issues raised by the appellants. I recommend the Forest Supervisor’s decision be affirmed and the appellants’ requested relief be denied.

/s/ Robert L. Schrenk
ROBERT L. SCHRENK
Appeal Reviewing Officer
Director of Forest and Rangeland