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Subject: 215 - ARO Letter - Cow Creek TS Project DN - Kootenai NF - Appeal #05-01-00-0039 - Alliance for the Wild Rockies, et al.

To: Appeal Deciding Officer

This is my recommendation on disposition of the appeal filed by The Ecology Center, Inc.; The Lands Council; and Alliance for the Wild Rockies protesting the Cow Creek Decision Notice (DN) on the Kootenai National Forest.

The Forest Supervisor's decision adopts Alternative 5-modified. This decision includes:

- Timber management activities on 842 acres. Logging systems used include tractor, skyline, and helicopter. Silvicultural prescriptions include intermediate harvest treatments with stand improvement and commercial thinning treatments, regeneration harvest units, including clearcut with reserves, seed tree with reserves, and shelterwood with reserves or a combination of shelterwood and improvement harvest prescriptions. Post harvest fuels treatments include 113 acres of excavator piling and burning, and 778 acres of prescribed burning in harvested units. Tree planting will occur on 641 acres.
- Approximately 778 acres of prescribed burning in units with timber harvest treatments. Timber harvest units also have a hazardous fuel reduction objective in addition to silvicultural objectives. An additional 36 acres of prescribed burning without timber harvest is authorized.
- Non-commercial, or precommercial, thinning activities on 472 acres.
- Approximately 1.06 miles of new road constructed to access timber harvest units.
- New road access restrictions on 16.49 miles of road within the project area, and on 31.0 miles of trails currently open to motorized use.
- A site-specific Forest Plan amendment for protection of cavity habitat in MA 10 due to logging operations authorized in MA 10, big game winter range.

My review was conducted pursuant to, and in accordance with, 36 CFR 215.19 to ensure the analysis and decision comply 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.

The appellants allege violations of the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), the Administrative Procedures Act (APA) and the Forest Plan. The appellants request the DN be withdrawn or remanded and that an Environmental Impact Statement (EIS) be prepared that fully complies with all laws, regulations and policies. The appellants declined to meet unless the Forest Supervisor made unspecified substantial changes to the decision.



ISSUE REVIEW

Issue 1. The EA failed to fully analyze an action alternative that meets the purpose and need and fully meets all Forest Plan Standards. Such an alternative is quite reasonable and is necessary for the EA to meet NEPA's requirements to analyze a full range of alternatives.

Response: Chapter II of the Environmental Assessment (EA) describes the alternative development process. Alternative 4 was specifically developed to meet Forest Plan standards by dropping all proposed timber harvest in Management Area (MA) 10. Three additional alternatives were considered but eliminated from detailed study. There were no opportunities to reduce open road density (ORD) in MA 12 in any alternative analyzed because no open road crosses MA 12 in the Cow Creek project area. The alternatives in the EA respond to the purpose and need, are within the management direction, respond to the issues raised during public scoping, and are reasonable for this project. Therefore, I find this to be an adequate range of alternatives.

Issue 2. The EA fails to disclose whether openings have regenerated sufficiently to no longer be considered openings. Nothing in the EA shows that the approved logging would have "no additional effect" on big-game species, other management indicator species, or threatened, endangered, and sensitive species. Large 40+ acre openings and the cumulative impacts on wildlife because of those and the new proposed large openings is not adequately analyzed nor disclosed.

Response: The analysis addresses direct, indirect and cumulative effects of timber harvest on big game species, management indicator species (MIS) and threatened, endangered, and sensitive species. Reforestation success reports are included in the project file (PF) (Vol. 3, Folder 1, Doc. 6), and considered in the analysis. None of the action alternatives propose unit openings greater than 40 acres, though several proposed regeneration units are adjacent to existing regeneration units that do not provide hiding cover in all or most of the units (EA, p. 3-192). The EA discloses that the openings would not benefit big game (EA, p. 3-192). The analysis determined that the project would not contribute to a trend toward federal listing or loss of species viability of sensitive species (EA, pp. 3-199 to 3-216), and is not likely to adversely affect threatened, endangered and proposed species (EA, pp. 3-217 to 3-222).

Issue 3. A more focused watershed restoration alternative, without logging and road building, should have been developed and fully analyzed given the existing conditions, including heavily altered or degraded water quality and wildlife habitat.

Response: Chapter II of the EA describes the alternative development process. Alternative 1, no action, proposes no logging or road building. An alternative with no commercial harvest was considered, but was not reviewed in depth because it would not meet the purpose and need for action (EA, p. 2-5). The alternatives considered in the EA provide an adequate range.

Issue 4. The EA ignores the facts of the ongoing controversy surrounding "treating" old growth and still maintaining the habitat for old-growth wildlife species. In order to meet

NEPA's requirements, the EA should have included an alternative that did not log in any old-growth species' habitat.

Response: There is no harvest proposed in designated old growth or in undesignated old growth (EA, p. 3-174). The old growth analysis determined that all alternatives are consistent with Forest Plan direction to maintain a minimum of 10 percent old growth below 5,500 feet (EA, pp. 3-175 to 3-176). This project will have no effect on the existing level of old growth in the compartment or Forest-wide. The decision meets the requirements of the Forest Plan.

Issue 5. The EA indicates that the Cow Creek Timber Sale would adversely affect pileated woodpecker habitat and increase risks to population viability. We also have doubts about the propriety of using pileated woodpecker to "indicate" for other old growth species. There is doubt as to the adequacy of the 10 percent old growth standard itself. Nothing in the Cow Creek EA shows the Forest has completed or is committed to the monitoring that would help insure old growth species' viability.

Response: Effects to pileated woodpecker habitat were analyzed and disclosed in the EA (pp. 3-195 to 3-198). Negative effects include the loss of 10 acres of undesignated replacement old growth, an increased edge effect, increased risk of snag loss, reduction in connectivity of forested stands, reduction of interior habitat and potential feeding sites, and continued fragmentation of potential pileated territories. However, the decision meets Forest Plan standards and guidelines for old growth habitat, cavity habitat and down woody debris (EA, p. 3-198). Design Features include the requirement to retain adequate levels of snags, replacement snags, and coarse woody material (DN, p. 18).

Forest Plan Monitoring and Evaluation Reports provide data on monitoring item C-4, old growth-dependent species and item C-5, old growth habitat. A recent Forest-wide assessment shows that the Forest has designated 11 percent old growth below 5,500 feet in elevation (MA 13). The project is consistent with Forest Plan standards.

Selection of MIS and adequacy of Forest Plan standards is outside the scope of this decision.

Issue 6. The Forest has not shown it has maintained 10 percent effective old growth and generally leaves the public uninformed as to how many acres in the project areas are in old-growth condition not including those "designated." The Forest has not reliably surveyed all of the stands designated as old growth, and it does not specifically address the potential problems with the data. The EA discloses that the project area Old Growth Management Unit has less than 10 percent effective old growth, and fails to disclose how many acres of old growth it considers to be "effective" are less than the 50-acre minimum and therefore are actually not old growth. The EA also fails to disclose how many acres of "replacement old growth" would be logged under any action alternative.

Response: In his Court Order of August 20, 2004, in the matter of The Ecology Center v. Castaneda, Judge Malloy indicated the Forest Service has demonstrated the Kootenai National Forest has 10 percent old growth as required by the Forest Plan. The EA provides information on designated, undesignated old growth, and replacement old growth (EA, pp. 3-171 to 3-174). Maps included in the EA display the location of designated effective old growth, designated

replacement old growth, undesignated replacement old growth, and undesignated old growth. An old growth analysis was conducted and the most current inventory of old growth indicates the Forest is meeting Forest Plan direction (EA, p. 3-171; PF, Vol. O, pp. 3-55 to 3-59; Vol. F, p. 7). The analysis of direct, indirect and cumulative effects to old growth habitat (EA, pp. 3-174 to 3-176) includes analysis of block size and distribution. All alternatives are consistent with Forest Plan direction for old growth habitat management.

Issue 7. Old growth habitat amounts and distribution in the Project Area does not comply with NFMA and Forest Plan. The EA indicates that the Project Area does not have enough effective old growth to meet the 10 percent Forest Plan Standard.

Response: All alternatives are consistent with Forest Plan direction to maintain a minimum of 10 percent old growth below 5,500 feet elevation when analyzed on the planning subunit scale (EA, p. 3-176). Old growth standards were analyzed consistent with the *Kootenai National Forest Considerations for Management of Old Growth* (PF, Vol. 6, Folder 2, Doc. 1). After implementation of the selected alternative, the planning subunit will have 10.3 percent of designated old growth and 4.5 percent of replacement old growth. This is consistent with Forest Service Manual (FSM) 2432.22 and Forest Plan direction.

Issue 8. The EA also fails to disclose the effectiveness of the designated old growth in the project area—in other words, is “designated” old growth high quality habitat that meets established criteria, or is it something less?

Response: The EA provides information on designated effective old growth and undesignated effective old growth (EA, pp. 3-171 and 3-174). Maps included in the EA display the location of designated effective old growth and undesignated effective old growth. The analysis is consistent with the characteristics of old growth and stand attributes discussed in the Forest Plan.

Issue 9. The EA does not disclose the significance of the effects on old-growth species’ populations or habitat degradation of old growth because of firewood cutting and illegal poaching of trees due to unrestricted access. The EA did not present an analysis of the impacts of open roads through old growth. The Forest continues to ignore the Forest Plan MA 13 Standards relating to protection of designated old growth in the project area (“Local roads will be restricted to prevent premature cutting of the snag component” - Forest Plan, p. III-56).

Response: Existing conditions consider that roads opened for firewood cutting or other activities would result in some level of snags being removed from the old growth stands (EA, p. 3-175). The EA discloses that opening roads for timber harvest will increase the risk for indirect removal of large diameter snags due to firewood gathering when roads are opened for management activities (EA, p. 3-175). The analysis considered roads to be open passing through old growth (PF, Vol. 6, Folder 2, Doc. 8). The project is consistent with Forest Plan direction.

Issue 10. Since the Forest is not meeting species viability requirements, it is critical to take steps to develop a multiple species conservation strategy for the Kootenai Forest.

Response: The EA discloses the direct, indirect, and cumulative effects to MIS and sensitive species (EA, pp. 3-183 to 3-217) and addresses viability. The wildlife biologist did not find that the project would negatively affect the continued existence of any MIS or sensitive species. Forest Service Manual (FSM) 2621.2 states, “Units must develop conservations strategies for those sensitive species whose continued existence may be negatively affected by the Forest Plan or a proposed project.” A conservation strategy is outside the scope of this analysis. The analysis is consistent with Forest Service policy.

Issue 11. The pileated woodpecker’s strong preference for trees of rather large diameter is not adequately considered in the EA.

Response: The EA incorporates pileated woodpecker population ecology, biology, habitat descriptions and relationships (EA, pp. 3-195 to 3-198). Habitat was modeled using designated and undesignated old growth, and impacts were evaluated considering important attributes of known nesting territories, old growth characteristics, fragmentation, edge effect, lack of interior habitat and risk to firewood cutting. The analysis is based on current scientific literature and site-specific information. The Forest Plan standards for pileated woodpecker habitat needs (Forest Plan, p. II-29) will be met.

Issue 12. There are ongoing and foreseeable activities on National Forest land and land of other ownership in the cumulative effects analysis area that could disrupt and displace wildlife and adversely alter habitat conditions. The EA does not disclose how such actions would cumulatively affect old-growth wildlife species’ habitats.

Response: The analysis of cumulative effects considered past, present, proposed and reasonably foreseeable activities on both public and private land (EA, pp. 3-1 to 3-6; DN, pp. B1-B2). The EA includes a cumulative effects analysis for pileated woodpecker, the MIS for old growth (EA, p. 3-198), as well as an analysis to old growth habitat (EA, p. 3-176). The project file includes a detailed analysis of cumulative effects to old growth habitat and associated MIS pileated woodpecker (PF, Vol. 6, Folder 4, Doc. 4). The cumulative effects analysis is adequate.

Issue 13. The Forest Plan’s reliance on Thomas, et al., 1979, was severely criticized in Bull et al., 1997. The Forest chose not to respond to this new scientific information that seriously calls into question snag standards and guidelines.

Response: The Forest Plan standard for snags was augmented by the Northern Region Snag Management Protocol and recent Forest monitoring reports (PF, Vol. 6, Folder 3, Doc. 1). The Regional snag guidelines are based on peer-reviewed literature, including modeling and local ecological conditions. They are in concert with the Interior Columbia Basic Ecological Management Project snag management requirement. The analysis of snags considered current scientific literature, including Bull, et al. (1997), to discuss and support the role of snags in forest stands, including contributions to old growth and assistance in maintaining species viability. The analysis of snags and habitat needs is supported by scientific literature and professional judgment of the wildlife biologist (EA, pp. 3-177 to 3-181).

Issue 14. The EA fails to disclose data from project area surveys for snags and replacements in old logging units. The EA fails to disclose how many of the old logging

units are deficient in snags. The paltry number of snags to be retained in logging units, and the failure to specify snags of adequate size, contrasts with scientifically-determined habitat needs acknowledged elsewhere. The EA fails to disclose how much snag loss would be expected because of safety concerns and skyline corridors and other methods of log removal.

Response: Snags surveys were completed for the planning unit (PF, Vol. 6, Folder 3, Docs. 7 and 14). Throughout the area, snags over 10 inches averaged 7 per acre in old growth stands and 1.1 per acre in existing regeneration harvest units. No harvest is planned within old growth stands. Retention of all snags greater than 10 inches dbh is planned for all proposed harvest units. The analysis of cavity habitat potential determined that implementation of action alternatives would have effects on snag habitat, but would maintain at least 40 percent snag levels in all units and overall snag level would meet Forest Plan snag standards (EA, pp. 3-179 to 3-181). Incidental snag loss due to OSHA regulations and safety as well as snag loss from skyline harvest is considered in the analysis (EA, p. 3-180).

Issue 15. The Forest has not sufficiently dealt with the issue of fragmentation, road effects, and past logging on old-growth species' habitat. The EA fails to disclose the degree to which edge effects on old growth species' habitat exists, and how much total edge effect would be increased, by the selected alternative.

Response: The project file provides information on the analysis for cumulative effects to snag habitat (PF, Vol. 6, Folder 4, Doc. 3) and old growth habitat (PF, Vol. 6, Folder 4, Doc. 4) that included timber harvest, roads and other actions that cause fragmentation. The EA includes a discussion of existing condition and effects associated with fragmentation, roads, and edge effects (EA, pp. 3-170 to 3-176). Some increase in edge effect or impact on snags would occur due to road construction (DN, p. A-23).

Issue 16. The Cow Creek EA falls far short of analyzing and disclosing fragmentation effects on old-growth species' viability, caused by the current conditions and by the Cow Creek Timber Sale.

Response: The EA lists current and reasonably foreseeable actions (EA, pp. 3-1 to 3-6). The analysis addresses effects to old growth habitat and associated MIS pileated woodpecker (EA, pp. 3-196 to 3-198). The EA discloses that continued fragmentation will reduce secure foraging habitat and may reduce habitat effectiveness for several decades, and that adverse effects to some attributes of old growth habitat is expected (EA, p. 3-198). However, the project and associated cumulative effects is not expected to change the potential population index for pileated woodpeckers. Forest Plan standards will be met.

Issue 17. The EA does not rely upon scientifically credible data or analysis, so the Decision to cause more soil disturbance, resulting in unknown losses in soil productivity, is arbitrary and capricious.

Response: The soils analysis is based on current scientific literature, monitoring results and professional judgment. Landtype information was obtained from the Forest soil survey. It

included information on sensitivity to management actions, the potential for erosion, and the feasibility of eroded soils to be delivered to streams (EA, p. 3-66). No proposed units have been previously impacted by ground disturbing activities (EA, p. 3-68). Data considered in the determination was based on 15 years of monitoring (PF, Vol. 3, Folder 3, Docs. 2 and 18). Forest monitoring has documented that detrimental soil disturbance from logging activities has been less than 10 percent. Implementation of Best Management Practices (BMPs) (EA, Appendix 7 and DN, Appendix D) will assure that harvest units will not exceed the Regional standard of 15 percent detrimental disturbance. All harvest units will meet Forest Plan standards for soil disturbance.

Issue 18. Logging, roadbuilding and other disturbance associated with the Cow Creek project and other cumulative impacts could affect northern goshawk nesting, post-fledging family habitat, alternative nesting, foraging, competitors, and prey and potential habitat, including areas far from cutting units.

Response: The EA includes an analysis of direct, indirect and cumulative effects to northern goshawk (EA, pp. 4-66 to 4-71) based on current scientific literature, surveys and occurrence data, habitat mapping and habitat modeling. The analysis evaluated proposed treatments and foraging, nesting and potential habitat (PF, Vol. 5, Folder 7, Docs. 1, 2, 3, 9 and 12). Effects were determined by comparing stand characteristics of proposed treatment units with known or currently understood nesting habitat forest structure, and the amount of nesting habitat that would be changed into foraging habitat. The EA disclosed that the project would displace goshawks, impact foraging and nesting habitat, and remove potential nesting habitat. The project includes a design feature to locate and protect nest sites (DN, p. 18). The analysis supports the finding that implementation of the project is not likely to contribute to a trend for federal listing or loss of viability for the northern goshawk because Forest-wide potential population index is maintained, existing old growth habitat and associated corridor links of old growth habitat are adequate to meet nesting requirements, and distribution of habitat needed for viable populations on a Forest level would remain. The project meets Forest Plan direction for goshawk.

Issue 19. The EA failed to disclose and analyze the uncertain and precarious population status of the fisher, as described in Witmer, et al., 1998.

Response: The Cow Creek EA includes an analysis of direct, indirect and cumulative effects to fisher (EA, pp. 3-203 to 3-205). The project file provides information on habitat mapping and analysis (PF, Vol. 5, Folder 10, Docs. 1, 3, and 11) as well as cumulative effects analysis to fisher (PF, Vol. 6, Folder 4, Doc. 5). Witmer, et al., 1998, was considered in the analysis (PF, Vol. A). The EA disclosed that the project would reduce fisher habitat, displace fisher during project implementation, potentially impact prey species, and increase trapping pressure. The analyses support the finding that implementation of the project is not likely to contribute to a trend for federal listing or loss of species viability for the fisher because sufficient habitat would remain distributed across the Forest to maintain populations, and there is low potential for any displacement or impact to the fisher.

Issue 20. The fire suppression and “salvage” logging policies are the biggest threat to black-backed woodpecker population viability on the Forest; unfortunately in failing to

create a conservation strategy, the cumulative impacts of the Forest's ongoing fire suppression policy will remain unexamined.

Response: The EA discloses the direct, indirect, and cumulative effects to black-backed woodpeckers (EA, Appendix 11, pp. 4-62 to 4-66). Cumulative effects analysis to snag habitat and the associated sensitive species black-backed woodpecker is provided in the project file (PF, Vol. 6, Folder 4, Doc. 3). Fire suppression activities and timber harvesting are identified as current and foreseeable future actions (EA, pp. 3-2 to 3-5). The wildlife biologist determined that the project would not contribute to a trend towards federal listing or loss of viability because no high quality habitat would be reduced and a broad, abundant distribution of habitat needed to maintain viable populations of black-backed woodpeckers would remain. The project is consistent with Forest Plan direction to maintain cavity habitat to help assure foraging and nesting habitat is available and well distributed across the Forest.

FSM 2621.2 states, "Units must develop conservation strategies for those sensitive species whose continued existence may be negatively affected by the forest plan or a proposed project." A conservation strategy is outside the scope of this analysis.

Issue 21. Lofroth (1997) in a study in British Columbia, found that wolverines use habitats as diverse as tundra and old-growth forest. Wolverines are also known to use mid- to low-elevation Douglas-fir forests in the winter (USDA, Forest Service, 1993). The cumulative impacts of logging and road building on a species that depends upon remote, wild areas are ignored in this EA.

Response: The EA discloses the direct, indirect, and cumulative effects to wolverine (EA, pp. 3-214 to 3-217). The analysis considered denning habitat, effects to prey and general habitat security. The habitat model was based on local information, including District sightings and historic records. Habitat attributes were refined considering cover type, structure class and size class (DN, p. A-31). The statement of finding is well supported by the analysis and the fact that no activities will occur in denning habitat, and that road decommissioning and motorized trail closures will improve habitat suitability. Cumulative effects analysis to wolverine is supported by the project file (PF, Vol. 6, Folder 4, Doc. 5). The effects of timber harvest and road construction were considered in the analysis of cumulative effects (EA, p. 3-1). The project meets Forest Plan direction for wolverine.

Issue 22. The flammulated, boreal owl, and the great gray owl are species of concern that are sensitive to logging and other management activities. The KNF provides inadequate management strategies to insure their viability.

Response: The EA includes an analysis of effects to flammulated owls (EA, pp. 3-205 to 3-209). Recent research on nesting, food habits, home range and territories and habitat quality, as well as recent local observations was used to model habitat and effects. Suitable habitat and potential population index decreases are disclosed. The finding that the project will not contribute to a loss of species viability is supported by the analysis because habitat change at the Forest scale is minimal, potential impact to impact or displaces an owl is low, and the prescribed

burning and improvement harvest may improve potential habitat. Forest Plan standards related to flammulated owl habitat will be met.

Boreal and great gray owls are not on either the 1999 or the 2004 sensitive species lists, and were not analyzed in the EA.

Issue 23. The EA does not adequately consider cumulative effects on upland habitat for boreal toads. In fact, the EA has no genuine analysis of cumulative impacts on boreal toads at all.

Response: The EA includes an analysis of effects to boreal toads (EA, pp. 3-199 to 3-203). Past, ongoing and foreseeable future actions are adequately considered (EA, pp. 3-1 to 3-6). The EA discloses that timber harvest and slash/burn units would not provide habitat until shrub cover returned. Scientific literature supports the finding that breeding habitat (ponds, lakes and wetlands) will be protected by design features including BMPs (EA, Appendix 7 and DN, Appendix D) and implementation of Forest Riparian Habitat Conservation Area (RHCA) standards (EA, Appendix 4 and DN, Appendix C). Suitable habitat would remain in the Riverview Subunit and distributed across the Forest. The project is consistent with Forest Plan riparian and INFISH standards and guidelines.

Issue 24. The EA errs in not adequately analyzing cumulative effects in the Fisher River, the area shown in the EAs Riverview cumulative effects map. Other ongoing and foreseeable logging on National Forest and Plum Creek land were ignored, including the activities approved in the concurrent Alder Creek EA. In failing to perform a proper cumulative effects analysis for the Fisher River, the EA also failed to perform the legally required analysis of the habitat and population situation for the threatened bull trout. The Fisher River is a “priority” watershed under the Forest Plan as amended by INFISH, and by rights ought to be designated critical habitat. The Forest has also failed to monitor the long-term impacts on water quality and fish habitat from implementing the Forest Plan. As a result, the cumulative impacts of logging and road building are not sufficiently disclosed in the EA or anywhere else.

Response: Cumulative effects considered include past, current and foreseeable actions within the Riverview Planning Subunit (EA, p. 3-1). This includes logging on National Forest System, Plum Creek Timber Company, private, Montana Department of State Lands and U.S. Army Corps of Engineers (EA, pp. 3-2 to 3-3 and DN, Appendix B-1 to B-2). The Alder Creek project is also considered in the cumulative effects analysis (EA, p. 3-3). The cumulative effects of planned harvesting in the Fisher Basin are disclosed and analyzed (EA, pp. 3-62 to 3-63). Bull trout were not analyzed in the EA since they do not occur in the project area (EA, p. 3-80). The cumulative effects analysis complies with NEPA.

In the Fiscal Year 2001 Forest Plan Monitoring Report, the Kootenai National Forest reported on monitoring items F-1 Soil and Water Conservation Practices, C-9 Riparian Area, C-10 Fisheries Habitat, F-2 Stream Sedimentation, and F-3 Water Yield Increases (2002 Monitoring Report, pp. 39-63) as required by the Forest Plan. The Forest has fulfilled the Forest Plan monitoring requirements.

Issue 25. The EA is entirely inadequate in its disclosures of present stream conditions and habitat conditions for aquatic species. The EA's failure to provide high quality information based on up-to-date stream condition and aquatic species' habitat condition surveys fails to comply with NEPA and NFMA.

Response: Water quality characterization of the watershed includes site-specific information on climate, stream channel types, vegetation, changes in flow volumes, in-stream channel conditions, sediments, nutrients and contaminants, and Riparian Habitat Conservation Areas (RHCAs) (EA, pp. 3-46 to 3-54). Nineteen habitat indicators are provided to characterize existing conditions of the watershed and fisheries in the area (EA, pp. 3-83 to 3-86). Site-specific information was utilized, including stream channel classification and fish habitat surveys for Cow Creek (EA, p. 3-87 and PF, Vol. 3, Folder 2, Docs. 3 and 5). The project implements RHCAs to protect riparian resources and function. There is no harvest or burning in the RHCAs, nor will there be a significant increase in peak flows within the project area. The project is consistent with INFISH and the Forest Plan.

Issue 26. The EA presents little or no data on baseline conditions, preferring to use the presently-damaged status. This fails to comply with NEPA's requirement that high quality information be used in NEPA documents.

Response: The EA provides a description of the desired conditions for the watershed (EA, pp. 3-43 to 3-44). Existing condition includes site-specific information on discharge, flow and water quality for the past 13 years. The analysis considered impacts from prescribed burning, road construction, reconstruction, BMPs, timber harvest and associated activities, and watershed restoration work. The project is consistent with INFISH and the Forest Plan.

Issue 27. The WATSED model consistently underestimates the effects of logging and roads on peak flows. This is never discussed in the context of the alternatives' effects on channel conditions and processes and aquatic habitat and fish populations. The EA ignores and fails to disclose research (King 1989) on the accuracy of a peakflow model. King found that the ECA model consistently underestimated measured increases in flow caused by roads and logging. The EA fails to disclose or discuss that the EA's estimates of effects on average monthly peakflows is inadequate for determining the effects of the alternatives and cumulative effects on peakflows and resultant impacts on channel erosion, bedload transport, sedimentation, bank erosion, fish habitat, fish survival, and downstream flooding impacts. WATSED and ECA estimates of peakflow changes do not address changes in daily and instantaneous peakflows from rain-on-snow events caused by logging and roads. Nowhere does it state in the EA that WATSED is limited in evaluating in-channel and stream-bank erosion, sediment and water discharge from rain-on-snow events, or the effects of large destructive events. The EA is devoid of a discussion of impacts of changes in peakflows on aquatic resources; impacts are likely to be greater than indicated by WATSED estimates. ECA and WATSED fail to take into account the extreme peak flow increases due to the high density of roads in the project area.

Response: The EA contains a thorough description of the water field modeling, including capabilities and limitations of Equivalent Clearcut Areas Calculator (ECAC) and R1-WATSED (EA, Appendix 8). The ECAC model was designed to enable hydrologists to estimate potential effects of timber harvesting and roads. The values generated, validated by comparison with the R1-WATSED model output, used in concert with other water resource information, allows the interpretation of potential effects to a stream channel as a result of implementing the project (EA, p. 3-49). The EA includes discussions on both peakflows and rain-on-snow events (EA, pp. 3-49 to 3-51). There will not be a significant increase in peak flows within the project area (EA, p. 3-94).

Issue 28. Since some watersheds may already fail to meet all Riparian Management Objectives (RMOs), the modeling procedure cannot be relied upon as the analysis does.

Response: RMOs are disclosed in the EA (p. 3-52). Road decommissioning will remove 11 miles of road and 13 stream crossing structures from the Cow Creek drainage. Surface flow and sediment will be reduced by BMP work. The project also includes creation of pools to meet INFISH standards.

Issue 29. The EA fails to disclose the necessary information and analysis to demonstrate that the restoration activities will balance out the adverse watershed impacts of the proposed road construction, logging, and burning in any time frame acceptable to the ecological functioning of these streams. The EA fails to disclose the values of peak flow increases over time following past management actions, as modeled for past NEPA documents. The EA fails to disclose the significance of this foreseeable lack of maintenance, and the direct, indirect and cumulative effects poorly maintained roads have on water quality. The EA fails to disclose if all roads in the project area will be brought up to BMP standards. The EA discusses BMP monitoring, but fails to disclose that such monitoring is implementation monitoring, not monitoring of BMPs effectiveness in protecting water quality and aquatic habitats.

Response: Peak flow levels are analyzed in the EA. The project considered cumulatively with Plum Creek Timber Company would add 3.2 percent to the peakflow level. Monitoring of this channel type supports the conclusion that the action will not have a negative effect on the channel. The project includes BMPs upgrades on Forest Road 762D (EA, p. 3-62). The change in peak flows is not expected to have a negative effect on the channel (EA, p. 3-63). The project is expected to result in an improving trend in condition. Reconstruction of existing roads and dismantling of specified roads will concentrate less water from each culvert and reduce the current sediment and water delivery problems. The project is consistent with Forest Plan for water resources.

Issue 30. The EA fails to disclose the sediment yield due to increased use of the roads due to logging and administrative traffic.

Response: The EA includes a discussion of sediment (EA, pp. 3-84 and 3-53). While the EA does not include quantitative sediment yield data, information on ECA and road density, as well as cumulative water yield increase is displayed (EA, p. 3-62). Based on past monitoring results,

application of RHCA buffers, implementation of BMPs, and the conclusion that the project will input any addition sediment into the stream channels is supported. Scientific literature and site-specific monitoring of BMPs on the Kootenai National Forest show that these practices are very effective in protecting beneficial uses by reducing potential sediment during and after management activities.

Issue 31. The EA did not disclose the effects on water quality if the uncertain watershed restoration funding fails to materialize during the life of the Cow Creek Timber Sale.

Response: The watershed effects analysis includes a discussion of the no action alternative in which no watershed restoration activities would occur (EA, p. 3-55). The EA discloses that construction of in-stream structures is dependant on funding (EA, p. 2-18). This was considered in the analysis of watershed effects.

Issue 32. The FS has failed to obtain or maintain any past or current hard population or inventory or monitoring data for the TES and MIS/sensitive fish species at issue in the project area or for the Forest as a whole. Distribution, status and population trends have not been determined. The Forest has not determined the minimum viable population as NFMA requires.

Response: The EA discloses that data on population and growth and survival rates is not available (EA, pp. 3-81 and 3-82). However, sufficient analysis was completed to assure that the project will comply with all watershed policies and protection measures, including riparian management guidelines and INFISH, and would not result in a significant effect on fish habitat. In addition, BMP work will accelerate hydrologic recovery and reduce potential for further habitat degradation (EA, p. 3-97). Therefore, the conclusion that the action may impact individuals or habitat, but not contribute to a trend towards federal listing or loss of viability is appropriate and adequately supported. The project complies with all guidelines required for the protection of fisheries habitat and that effects analysis is adequate.

Issue 33. Results of monitoring the impacts of a host of past projects in the project area were not adequately disclosed in the EA.

Response: The monitoring and evaluation described in the Forest Plan is designed to “provide the decision maker and the public with information on the progress and results of implementing the Forest Plan... To do this, a comparison will be made, on a sample basis, of overall progress in implementing the Plan...” (Forest Plan, p. IV-3). Not every project will be monitored in order to do the sampling necessary to evaluate how well the Forest is succeeding in implementing the Forest Plan. The Forest is conducting the monitoring required in the Forest Plan and reporting the resulting in the yearly Forest Plan monitoring reports. Results of monitoring were used in the analysis.

Issue 34. The Forest Plan development process and EIS also never anticipated the almost universal practice of adopting Forest Plan amendments and “exceptions” for major timber projects on the Forest, including the Cow Creek project. These amendments and “exceptions” lessened the protection of wildlife habitat by allowing Forest Plan Standards

to be violated routinely. The Forestwide/cumulative impacts on wildlife habitats and Forest Plan EIS assumptions have never been adequately considered. Clearly, this Forest Plan is out-of-date and in dire need of revision. The practice of relying upon Plan level decisions, such as deferring to Management Area designations as the Cow Creek EA does, is seriously misguided by the current Forest Plan.

Response: The purpose and need of the Cow Creek area is based on Forest Plan goals, objectives and standards (DN, p. 22). The decision includes rationale for the non-significant project-specific amendment to the Forest Plan because the amendment will be short term in nature with minimum standards being exceeded (DN, p. 26). Determination of significance complied with FSH 1909.12, Section 5.32. Site-specific Forest Plan amendments are allowed based on an analysis of the objectives, guidelines, and other contents of the Forest Plan (36 CFR 219.10). If the change resulting from the amendment is determined not to be significant for the purposes of the planning process, the Forest Supervisor may implement the amendment following appropriate public notification and satisfactory completion of NEPA procedures (36 CFR 219.10). The Forest followed the appropriate procedure for amending the Forest Plan.

The Forest is in the process of revising its Forest Plan. New information and site-specific knowledge of existing condition are used in the Cow Creek EA. The Consolidated Appropriations Act, 2005, provides that prior to October 1, 2005, the Secretary of Agriculture shall not be considered to be in violation of the Forest and Rangeland Renewable Resources Planning Act solely because more than 15 years have passed without revision of the Forest Plan.

Issue 35. The EA did not have a list of those actions creating all the roads and logging all those acres, nor does the EA disclose the differential effects of those various projects on all resources of concern. Nor does the EA disclose the results of all monitoring done in the project area as committed to in the NEPA documents of those past projects.

Response: The analysis considered the results from monitoring, including Forest Plan monitoring reports (PF, Vols. A and M), reforestation reports (PF, Vol. 3, Folder 1, Doc. 6), wildlife monitoring (PF, Vol. 5, Folder 3, Docs. 2-5, and 7; Vol. 5, Folder 7, Docs. 10 and 11; and Vol. 5, Folder 12, Doc. 14) and soils (Vol. 3, Folder 3, Doc. 18). It is clear from the EA and project file that past project-level and Forest Plan-level monitoring were incorporated into the analysis.

The analysis considered the cumulative effects of past activities. The EA includes a listing of the past, current, and reasonably foreseeable actions (EA, pp. 3-1 to 3-6 and DN, Appendix B-1 to B-2). Included is a detailed listing of all timber sale projects by name, year and acreage. The interdisciplinary team considered past activities in their analysis; results are disclosed in Chapter 3 of the EA.

As interpreted by the Council on Environmental Quality (CEQ), "NEPA is forward looking, in that it focuses on the potential impacts of the proposed action..." (*Guidance on the Consideration of Past Actions in Cumulative Effects Analysis*, June 24, 2005). Consistent with the CEQ guidance, the past, present, and reasonably foreseeable activities have been considered in the cumulative effects analysis for each resource area relative to the specific potential future

effects of the proposal. A comprehensive list of past, present, and reasonably foreseeable actions is provided in the EA (pp. 3-1 to 3-6). This list is displayed graphically on a map in the EA (see map entitled *Riverview Cumulative Effects 3/29/2005*, Map 7 at end of EA). To the extent these past actions have influenced and shaped the affected environment, they are inherent to those descriptions and form the existing baseline conditions and trends; a starting point for discussions of the reasonably foreseeable affects that NEPA is concerned with (for examples see EA, pp. 3-24 to 3-26, 3-55 to 3-64, 3-68 to 3-73, 3-171 to 3-174, 3-177 to 3-178, 3-181, and 3-185 to 3-188). This affected environment is provided further context in the Cow Creek Project EA by contrasting it with other benchmark or reference conditions. This includes comparison with and disclosure of the range of conditions, trends, and processes that would be expected if these past human actions had not occurred (for example EA, pp. 3-8 through 3-22). Lingering effects of past actions are discussed commensurate with the degree and manner they will continue to influence the specific resource and interact with effects of the proposal (for example, roads and ongoing access affects, see EA, pp. 3-188 and 3-196; or harvest openings and continuing effects on water yield, see EA, pp. 3-49 to 3-54).

In addition, the CEQ guidance recognizes that, "...experience with and information about past direct and indirect effects of individual past actions may also be useful in illuminating or predicting the direct and indirect effects of a proposed action." In this context, monitoring of past projects and survey of current conditions was used appropriately in the Cow Creek project; both to design the current project with minimal effects and to help predict the effects of the proposal. For example most of the proposal's design features (EA, pp. 2-26 to 2-29) are based on experience gained in monitoring previous similar activities and the same information was useful in predicting the effects of these actions. Notable examples include experience and understanding gained from some 13 years of BMP monitoring (EA, Appendix 2), extensive soil disturbance monitoring (EA, p. 3-66), and snag monitoring (EA, p. 3-177).

Based on this, my overall review of the cumulative effects analysis and considerations in the Cow Creek EA and supporting record, the types and scope of direct and indirect effects predicted from the proposal, the types of actions being considered, and Council on Environmental Quality direction, I believe the Cow Creek Project EA appropriately and adequately considered past actions in the cumulative effects analysis.

Issue 36. The Cow Creek EA does not demonstrate that the project and its analysis are consistent with all standards contained in the Lynx Conservation and Assessment Strategy (LCAS). The EA also fails to adequately address the effects of logging on landscape pattern, which is essential for designation of critical habitat. Moreover, the EA fails to disclose the expected level of cumulative impacts on lynx from the additional new roads, additional skid trails, and other logging access routes to be constructed in the project area—roads/access routes that could be used by snowmobilers, snowshoers, and cross country skiers long after the logging activities have stopped.

Response: There is no suitable lynx habitat in the project area; lynx are not suspected to occur in the project area. Therefore, the EA does not include an analysis of effects to lynx (EA, p. 3-217).

Issue 37. The EA maps disclose that Plum Creek Timber Company owns a considerable portion of the Riverview Planning Subunit. Possible management activities on those lands present foreseeable activities on land of these other ownerships, yet the EA generally omits any discussion of cumulative impacts from those activities. The discussion of these cumulative impacts fails to take the “hard look” NEPA requires for cumulative effects studies on soil productivity, watershed functioning, aquatic and terrestrial habitats for MIS and TES species, air quality, visual quality, etc.

Response: Plum Creek Timber Company holdings and management is disclosed in the EA (pp. 3-2 to 3-3 and DN, Appendix B-1 to B-2). Foreseeable future actions for Plum Creek Timber Company are displayed by harvest types and acreage through the year 2019, which provides a reasonable temporal boundary for the analysis. The analysis documented effects of these potential activities for soils (EA, p. 3-73), watershed (EA, p. 3-62), fisheries (EA, p. 3-93), wildlife (EA, pp. 3-176, 3-180 to 3-181, 3-194, 3-198, 3-202, 3-205, 3-207 to 3-213, 3-215, 3-218, and 3-221 to 3-222), air quality (EA, p. 3-122) and visuals (EA, p. 3-121). The analysis includes an adequate cumulative effects analysis.

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 appellants. I recommend the Forest Supervisor’s decision be affirmed and the appellants’ requested relief be denied.

/s/ Cathy Barbouletos
CATHY BARBOULETOS
Appeal Reviewing Officer