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Subject: ARO Letter - West Fork Potlatch Ecosystem Management Project ROD - Appeal #02-01-00-0031 - Clearwater NF

To: Appeal Deciding Officer

This is my recommendation on disposition of the appeal filed by Gary Macfarlane on behalf of Larry McLaud and Friends of the Clearwater; Alliance for the Wild Rockies; The Lands Council; The Ecology Center, Inc.; American Wildlands; and Idaho Conservation League protesting the *West Fork Potlatch Ecosystem Management Project Record of Decision* (ROD) on the Clearwater National Forest.

The Forest Supervisor's decision adopts Alternative E Modified, which includes timber harvest, prescribed burning, wildlife habitat improvements, road construction and reconstruction, road obliteration, watershed restoration, old growth/replacement old growth designation, reauthorization of the Nat Brown-Purdue grazing allotment, access management and recreational activities.

The ROD defers the decision to implement several actions: restore 1.2 miles of stream restoration in the West Fork Potlatch River, construct three ponds, harden eight dispersed campsites, and carry out a wildlife burn because the heritage (archeological) study has not been completed for them. Implementation of the selected activities would begin in 2002 and be completed in 5 to 8 years.

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), and the Clearwater Forest Plan. The appellants request that the Regional Forester rescind the West Fork Potlatch ROD. An informal meeting was held but no resolution of the issues was reached.

ISSUE REVIEW

Issue 1. Purpose and Need/Non-NEPA Documents.

Appellants contend, "[o]ne of the major problems with the FEIS and ROD is the use of non-NEPA and non-decision documents as programmatic decision documents. . ." (NOA, p. 2) and list the following programmatic decisions: Potlatch River above Bovill EAWS, the Clearwater Subbasin Assessment, the National Fire Plan, Ecosystem Management, Forest Service Natural



Resource Agenda, Forest Service Ethics and Course to the Future, and ICBEMP (*Id.*).

Response. Appellants are correct that the documents listed above are not decision documents. They have been developed to identify project opportunities and to explain how the specific project fits into the broader picture. These types of documents are frequently described as stage-setting documents; documents prepared prior to NEPA decision documents. Generally, these documents describe the conditions that currently exist in the area being described and then identify recommendations of potential management actions that could occur on that area. These documents make no decision and implement no project on the ground. They merely set the stage for the NEPA decision document to follow. The use of non-NEPA documents in an Environmental Impact Statement is an acceptable practice (40 CFR 1502.21). The use of these documents (referenced above) for the purpose and need for this project is in compliance with NEPA.

Issue 2. Range of Alternatives.

Appellants contend the Forest Service violated NEPA, failing to develop and analyze a reasonable range of alternatives (NOA, p. 4), specifically “[t]he FEIS has absolutely no range of alternatives for grazing and it dismissed discussion of a non logging alternative” (NOA, p. 5).

Response. The Forest followed the NEPA process by identifying a purpose and need for initiating a project for this area (FEIS, Chapter I, pp. 1 to 6). A proposed action was developed to move toward the achievement of the desired condition (FEIS, Summary, pp. 2-8). Significant issues were developed following scoping (internal and public) (FEIS, Chapter I, pp. 19-24). From these significant or key issues, alternatives to the proposed action were developed (FEIS, Chapter II, p. 2; pp. 6 to 63). Alternatives suggested by the public, including non-logging and changes in grazing, were considered (FEIS, Chapter II, pp 2-6; Chapter V, pp. 28-30). The non-logging alternative was eliminated from detailed study for the reasons stated in the FEIS (Chapter II, pp. 2-6). For grazing, utilization checks from previous years were summarized and the general effects of the ongoing grazing were reviewed and discussed (PR, Vol. IX, Docs. 635 to 641a and Vol. VIII, Doc. 620). Alternative A (No Action) was identified as the no grazing alternative, in compliance with NEPA (FEIS, Chapter II, p. 8). Grazing was identified as a feature common to all action alternatives for the reasons stated in the FEIS, and specifically in the Response to Comments (FEIS, Chapter V, pp. 28-30).

Issue 3. Forest Plan/Elk Habitat Effectiveness.

Appellants contend elk habitat effectiveness was not calculated for all alternatives; therefore, it is impossible to compare one alternative to another and make an informed NEPA decision (NOA, p. 9). Appellants also contend there is a Forest Plan requirement to maintain elk habitat above 25 percent in E-1 areas where it already exists.

Response. The Clearwater Forest Plan clearly states on pages II-20 and III-58 that the 25 percent habitat standard is a minimum. Managers are encouraged to exceed the 25 percent habitat standard, but there is no actual requirement or standard to maintain higher levels in Management Area E-1.

The existing habitat condition for all four elk units in the project area was calculated (EIS, Chapter III, pp. 41 to 42). Current conditions in all four units exceed the minimum Forest Plan standard of 25 percent of elk habitat potential (*Id.*). Changes in habitat condition were calculated for Alternative C, considered the most impactful alternative (to elk habitat effectiveness) by the

project biologist (EIS, Chapter IV, p. 49). Alternative C calculations demonstrate that there would be minimal or no decline in habitat potential for the Abes and Feather units, the Cougar Elk Management Unit would decline from 45 to 40 percent, and habitat potential in the Moose Elk Management Unit would decline from 53 to 28 percent (EIS, Chapter IV, p. 48; PR, Vol. VI, Docs. 406-409).

Elk habitat conditions were not calculated for the other alternatives (FEIS, Chapter IV, p. 48). It was determined by the project biologist that all other alternatives were less impactful than Alternative C (which was meeting the Forest Plan standard); therefore, all action alternatives would meet the 25 percent elk standard (FEIS, Chapter IV, p. 48, Table IV-6, Footnote). In addition, the effects of each alternative are described in narrative form and mapped on pages IV-49 to IV-54 of the FEIS. The qualitative comparison of the action alternatives (“iii. Conclusion of the Analysis” FEIS, Chapter IV, pp. IV-49 and IV-54) compares the effects of all proposed action alternatives and qualitatively ranks the value of each alternative, concluding that “[a]ll alternatives meet Forest Plan standards and there are no population viability concerns for elk with any of the proposed actions.” The information provided gives the deciding officer the necessary information to make an informed decision related to this issue.

Issue 4. Monitoring for Management Indicator Species (MIS).

Appellants contend that the “combination of no population numbers for MIS species and the loss of habitat for these species make it impossible to determine the effects on MIS species” (NOA, p. 9) and that the “CNF has not followed the Forest Plan in terms of monitoring MIS species and has failed to maintain adequate wildlife habitat” (NOA, p. 10).

Response. Monitoring, as required by the Forest Plan, relates to monitoring at the Forest-wide level. As required by the Forest Plan (Plan, pp. IV-8 to IV-16), this monitoring is being conducted and the results of the Forest Plan monitoring reported in the yearly Monitoring and Evaluation Report. The project record (PR) (Vol. XI, Doc. 823a) contains the Monitoring and Evaluation Report for 1999, indicating that the Forest is conducting Forest Plan mandated monitoring on all resources as required by the Plan. Monitoring of species to develop population trends is part of this Monitoring and Evaluation Report. Wildlife species analyzed for this project associated with late successional forest structure included pileated woodpecker and goshawk. These species were analyzed in detail for this EIS because suitable habitat was determined to be present within the analysis area.

As described in the FEIS, analysis of impacts to MIS species is supported by the latest scientific literature, professional judgment (FEIS, Chapter IV, pp. 30 and 39), monitoring information (PR, Vol. XI), and site visits by the District wildlife biologist, District hydrologist, District botanist, Forest fish biologist and Forest wildlife biologist (PR, Vol. VI, wildlife section). The Forest utilized the best available information about habitat preferences of individual species of concern (Ruggiero, et al., 1994) (PR, Vol. VI, Doc. 422). To evaluate habitat conditions and possible impacts of the various alternatives on pileated woodpecker, the Forest utilized methods described by Warren (1994). Potential impacts on goshawk utilized information and methodology by Warren (1990) and Reynolds (1991). This information was assessed against each alternative to determine potential effects on habitat potential for each species of concern.

Issue 5. Violation of Monitoring and Viability Requirements.

In addition, appellants contend the Forest Service violated the NFMA by failing to adhere to

monitoring requirements of the Clearwater Forest Plan, stating, “[w]ithout adequate pre-decision monitoring, the impacts from the proposed activities can not be documented or analyzed” (NOA, pp. 9 and 10).

Appellants further contend the “[l]ack of population trend monitoring forest wide impacts this projects [sic] because there is no hard data to assure minimum viability of MIS species if this project goes forward” (NOA, p. 11).

Response. As described in the FEIS, analysis of impacts to MIS species is supported by the latest scientific literature, professional judgment (FEIS, Chapter IV, pp. 30 and 39), monitoring information (PR, Vol. XI), and site visits by the District wildlife biologist, District hydrologist, District botanist, Forest fish biologist and Forest wildlife biologist (PR, Vol. VI, wildlife section). The Forest utilized the best available information about habitat preferences of individual species of concern (Ruggiero, et al., 1994) (PR, Vol. VI, Doc. 422). To evaluate habitat conditions and possible impacts of the various alternatives on pileated woodpecker, the Forest utilized methods described by Warren (1994). Potential impacts on goshawk utilized information and methodology by Warren (1990) and Reynolds (1991). This information was assessed against each alternative to determine potential effects on habitat potential for each species of concern.

Known sightings of species were used in the analysis to help verify assumptions and applicability of literature citations to the local area. A logical approach was taken to evaluate impacts of the various alternatives on MIS species (FEIS, Chapter IV, Section 2 - Wildlife Species). The project biologist does acknowledge some loss of habitat for those species of concern, but concludes that this loss of habitat would not be significant for the species, especially across the Forest and its range (FEIS, Chapter IV, pp. 38 and 47)

Monitoring of species to develop population trends, as the appellants discuss, is a Forest-level issue and outside the scope of this site-specific project. The Forest issues an *Annual Monitoring and Evaluation Report* as required by the Forest Plan (see PR, Vol. XI, Doc. 823a). This report addresses the monitoring done at the Forest-wide scale for threatened and endangered, management indicator, and sensitive species.

Issue 6. Old Growth.

Appellants contend the Forest Service is failing to meet Forest Plan standards for old growth, both on the project- and Forest-level, since some stands proposed for designation as old growth replacement stands are not classified as late successional forest and are not representative of the major habitat types found on the Forest (NOA, pp. 11 and 12). Appellants further contend inadequate habitat and loss of habitat being proposed will adversely impact pileated woodpecker populations and cause a violation of NFMA (NOA, pp. 11 and 12).

Response.

Forest Plan Standards

The Forest Plan standard for old growth is a two-part standard: the 5 percent standard applies to 10,000-acre old growth compartments that are distributed across the Clearwater National Forest (Forest Plan, p. II-23); the 10 percent standard is a Forest-wide requirement.

With regard to the 5 percent standard, there are two old growth compartments within the cumulative effects analysis area (old growth compartments 7 and 8) (FEIS, Chapter III, pp. 45 to

51). No old growth will be harvested as a result of the decision, and 2,368 acres or 11.1 percent of the National Forest System lands on the Clearwater National Forest will be designated for long-term management of old growth (ROD, p. 10; FEIS, p. III-50, Table III-8, and FEIS, p. IV-60). Discussion provided in the FEIS (pp. IV-60 to 65) concludes that since there will be no harvest of old growth, there will be no impact to the 10 percent Forest-wide standard.

The process used for the selection of old growth replacement stands is described on page III-47 of the FEIS. Generally, the best available stands were selected based on structure, lack of fragmentation, and adjacency to field-verified old growth stands. To form large unfragmented blocks it was sometimes necessary to include stands of younger age classes. Due to past fire history, opportunities are limited to select stands with a high component of ponderosa pine and other early seral species. Most late successional stands in the analysis area have a high component of grand fir.

Pileated Woodpecker

Regarding the appellants' contention that inadequate habitat and loss of habitat being proposed will adversely impact pileated woodpecker populations and result in a violation of NFMA, the Forest Service adequately responded to a similar concern for both the pileated woodpecker and the goshawk in their Response to Comments (FEIS, pp. V-10 to V-12). The pileated woodpecker is a year-round resident in the Northern Rockies, and this species appears to be a fairly common resident on the Clearwater National Forest (FEIS, Chapter III, p. 35). Nesting habitat was assumed to be the limiting factor for this species (FEIS, Chapter III, p. 36). The Forest biologist examined each theoretical home range for nesting habitat based on recommendations of Warren (1990, 1994) (*Id.*).

As explained in the FEIS (Chapter IV, p. 30),

“All action alternatives would reduce but not eliminate suitable pileated nesting habitat in the project area. The District biologist used recommendations from Warren (1994) that suggest at least 100 acres of nesting habitat be available in each home range and that at least 50 of those acres be contiguous, in order for a theoretical home range to remain suitable. Nesting patches of greater than 300 acres were considered optimal (Clearwater Forest Plan – Appendix H).”

Specific to Alternative E Modified, for the three affected suitable home ranges (FEIS, Chapter IV, p. 33, Table IV-3 and Figure IV-4), habitat conditions for the pileated woodpecker decline but conditions do not drop below the minimum levels recommended by Warren (above). The FEIS continues, “in theory, the project area should be able to support approximately the same number of nesting pairs of pileated woodpeckers after implementation of the proposed Alternative E Modified as it does now” (FEIS, Chapter IV, p. 32).

The biologist does discuss that there will be some local habitat declines for the pileated woodpecker as a result of all action alternatives. However, enough suitable habitat will remain within the project area so that all currently suitable theoretical home ranges would remain suitable as measured by the standards used in the analysis (FEIS, Chapter. IV, p. 32 and p. 47) and would continue to support the same number of breeding pairs of pileated woodpecker after implementation of Alternative E Modified (*Id.*).

Issue 7. Water Quality.

Appellants contend the Forest Service violated the Forest Plan Settlement Agreement by proceeding with a project that will provide a measurable increase of sediment into a stream currently not meeting Forest Plan standards. The landslide discussion does not show that landslide risks will be mitigated such that there will be “no measurable increase in sediment” (NOA, p. 14).

Appellants contend the Forest Service violated the Settlement Agreement by failing to conduct the predecisional monitoring required for streams included in the Agreement. The monitoring is incomplete and does not include all of the three techniques named (NOA, p. 13).

Appellants contend the Forest Service sediment modeling is not sound because the WATBAL model was used. “WATBAL does not reflect the sediment input from landslides and therefore does not fully disclose possible sediment increases” (NOA, p. 12). The sediment yield from planned activities on other ownerships is not disclosed. The EIS fails to disclose how much sediment is being generated by planned activities and how that amount was arrived at (NOA, p. 14). One would logically expect Alternative D to produce less sediment than Alternative E, modified. The analysis used in the EIS shows a flipped result (NOA, p. 13).

Appellants contend the method for the prediction of sediment reduction is not disclosed and no data is offered that predictions are accurate (NOA, p. 13). Without a common analysis for sediment production and reduction, the sediment predictions are invalid (NOA, p. 12).

Appellants contend the Forest Service should not rely on PACFISH buffers and BMPs to mitigate landslide sediment effects. PACFISH buffers were almost entirely relied on to support the claim that logging will not result in increased sediment to area streams (NOA, p. 13). The Clearwater National Forest also points to the use of BMPs as mitigation to stop sediment from entering streams (NOA, p. 13). Because BMPs have not been assessed for their effectiveness against landslide events, and landslides are more likely to occur in managed areas such as West Fork Potlatch, the Clearwater National Forest cannot rely on BMPs for mitigation (NOA, p. 13).

Appellants contend the Forest Service analysis did not consider the effect of precommercial thinning on the attainment of RMOs. Also, PACFISH buffers are not being followed for precommercial thinning (NOA, p. 14).

Appellants contend the Forest Service temperature analysis did not consider grazing effects and used a model that considers a limited number of variables. The likely net impact of Alternative E Modified will increase the temperatures of 303d-listed streams for temperature (NOA, p. 13). Not all the streams grazed will be fenced so the cattle activity will adversely impact temperature and possibly sediment in streams on the 303d list. Grazing overlap in areas were (sic) spawning could occur will adversely effect stream temperatures as the critical time of spawning (NOA, p. 14). The Temp86 model only looks at shade and elevation of stream segments as variables to make the prediction (NOA, p. 13).

Appellants contend the Forest Service proposal is in an area where beneficial uses are not being met. No westslope cutthroat trout are present in the project area according to the EIS. Historically, westslope cutthroat trout were present. This lack of cutthroat is evidence that beneficial uses of the streams are not being met (NOA, p. 14).

Response.

Settlement Agreement

The Settlement Agreement states that the Forest Service will perform “instream analyses, using techniques such as the Riffle Armor Stability Index, pool riffle ratios and cobble embeddedness.” The techniques named are examples of information that may be gathered, not required methods. Other techniques may also be used. Riffle Stability Index (RSI) information was collected on the West Fork Potlatch and the main Potlatch River near Sheep Creek. Fish habitat parameters collected during the surveys include pool: riffle ratios, cobble embeddedness, pool quality, instream cover, acting and potential debris, bank cover and bank stability. These have been compiled into the fish habitat discussion (FEIS, Chapter III, pp. 85-95) and compared to the Forest Fisheries Desired Future Condition. Non-fisheries streams were reviewed with the headwater survey technique. Eighty-one percent of the stream length on federal ownership was reviewed (FEIS, Chapter III, p. 77). The information gathered by stream surveys allowed a reasonable and adequate consideration of fisheries habitat conditions and identification of appropriate measures to move the streams toward an improving condition. Literature on fisheries requirements, the relative ranking based on Forest Fisheries Desired Future Conditions, and professional judgment were used to consider the effects of the proposed actions (FEIS, Chapter III, pp. 111-116).

The project design, mitigation, and monitoring measures specified for the action alternatives (FEIS, Chapter II, pp. 8 and 30-40) achieve the no measurable sediment standard (FEIS, Chapter IV, p. 102). Mitigation measures applied to landslide hazards would minimize the risk of sediment delivery (FEIS, Chapter II, p. 32). Sediment reduction measures reduce overall sediment below the amounts for the existing condition (FEIS, Chapter IV, p. 105).

WATBAL

The WATBAL model was never intended to model episodic events such as landslides and storms. Landslide risk is addressed separately within the EIS (Chapter IV, pp. 85 to 87). However, although WATBAL cannot predict individual storm events and landslides, sediment derived from landslides and debris flows is accurately modeled in WATBAL. The program’s source information is based on long-term measured averages, and its outputs are in terms of long-term averages. The program was calibrated and validated on 3-year running annual mean sediment information and long-term discharge annual averages (see WATBAL User’s Guide). WATBAL was calibrated with extensive data derived on the Clearwater National Forest and adjoining Forests. As with any model, WATBAL has its limitations. It is one of several tools used by the professional hydrologist to understand the watershed condition. Other tools used include stream and headwater surveys, RSI, pebble counts, and on-the-ground knowledge, as described in the EIS. Rick Patten, a developer of the WATBAL model, has refuted the assertions made in Robert Hickey’s article, “Evaluating the WATBAL Sediment Loading Model, Clearwater National Forest, Idaho.”

WATBAL reflects average annual sediment production, considering both mass and surface erosion of activities (FEIS, App. F). Cumulative actions from other land-ownerships have been included in WATBAL input (FEIS, p. III-66). The effects from activities on other land-ownerships are included in the the WATBAL input and output (PR, Vol. XVIII, Docs. 896, 897, 906, 907, 916, 917, 925, 926, 947, 948, and 949). The output for each action shows relative proportions allotted to surface and mass erosion processes. Predicted sediment production in Moose Creek (FEIS, p. IV-96) is modified for the analysis area as a whole because the State

reservoir at the mouth of Moose Creek and sediment effects would not be transported to the mainstem Potlatch (FEIS, p. IV-102). Sediment reduction activities are greater in Alternative E Modified than in Alternative D (FEIS, p. IV-104). Overall sediment production is correctly displayed in Table IV-34 (FEIS, Chapter IV, p. 105). Effects of landslides are addressed by examination of the five factors noted by McClelland, et al. (FEIS, App. F, pp. 9-19) and with the mitigation factors applied to activity areas (FEIS, Chapter II).

Sediment Prediction

WATBAL was utilized following standard procedures to determine and compare sediment **production** between alternatives (FEIS, IV, p. 105). Sediment **reduction** was calculated as described in the FEIS (Chapter IV, p. 89). Reduction was calculated by starting from WATBAL generated sediment production amounts for the first year of road construction. Burroughs and King (1989) was used to establish the amount of erosion from the travelway (30 percent) and the existing condition of the road (whether native or grassy). The existing condition was adjusted for grass where appropriate; calculations of treatment (use of gravel or obliteration) were then made. Comparison of existing condition to the condition after surfacing or obliteration then results in the sediment savings. The savings are routed to the same point of concern as that for sediment production, and are made in reference to the same period of 10 years. Sediment reductions show nine times the sediment produced by the proposed roads and harvest, a clear overall reduction in sediment load. Overall sediment production for the various alternatives show in Table IV-34 (FEIS, Chapter IV, p. 105), with action alternatives displaying a decrease from existing condition.

PACFISH/BMPs

The landslide hazards have been addressed through review of the five landslide factors and on-the-ground review of those units with the steepest slopes. Recommendations from the Forest soil scientist (PR, Vol. IX, Doc. 652h) are based on literature that supports increased canopy retention in sensitive areas as a mechanism for slope protection. PACFISH buffers provide aquatic integrity in several ways, including influencing the delivery of sediment (FEIS, Chapter V, p. 16). BMPs are used largely to address surface erosion.

Precommercial thinning is a silvicultural treatment that involves hand cutting of 3, 4, and 5-inch dbh stems from a high number per acre (1000-12000) to about 600 trees per acre. PACFISH guidelines for timber management (TM-1b), "Apply silvicultural practices for RHCAs to acquire desired vegetation characteristics where needed to attain RMOs."

Grazing

Grazing effects are discussed in the channel morphology section (FEIS, Chapter IV, pp. 107-111). Temperature concerns related to timber harvest are negligible because of the PACFISH buffers (FEIS, Chapter III, p. 85). The temperature discussion is limited to effects of grazing (FEIS, Chapter IV, p. 111) and the improvement that has occurred with recent fence construction. Nearly 7.5 miles of fence on NFSL in West Fork Potlatch, Feather Creek, Cougar Creek and Nat Brown exclude cattle from riparian areas and encourage vegetative growth (PR, Vol. XI, Doc. 823b, p. 76). These are areas with spawning and winter rearing areas (FEIS, Chapter III, p. 90). The West Fork Potlatch/Moose Creek Allotment changes the areas for first use, but both Feather and Cougar Creek have only small areas of spawning gravels (FEIS, Chapter IV, p. 114). In addition to the variables mentioned in the appeal, the Temp86 model

[PR, Vol. VI, Doc. 391 (output results)] includes azimuth, gradient of stream section, flow velocity, percent pools, and average bed material diameter.

Beneficial Uses

Surveys in the area showed no current populations of Westslope cutthroat; therefore, the species was dismissed from further consideration (FEIS, Chapter III, p. 85). Brook trout were found in 60 percent of the sampled stations (FEIS, Chapter III, p. 87) in the project area, and as an introduced species are strong competitors for habitat and are known to hybridize with cutthroat. Resident fish also compete with steelhead (FEIS, Chapter III, p. 95). The original range of Westslope cutthroat was much larger, and strong populations are outside of this project area. Populations in the North Fork Clearwater show some populations with hybridization and others with strong Westslope cutthroat genetic stock. Combined habitat and inter-specific competition affect the trout production.

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/ Michael Burnside
MICHAEL BURNSIDE
Reviewing Officer
Recreation, Minerals, Lands, Heritage and Wilderness