



File Code: 1570-1

Date: July 23, 2003

Route To: (1570 - 215)

Subject: ARO Letter - Post Fire Vegetation and Fuels Management ROD - Beaverhead-Deerlodge NF - Appeal #03-01-00-0055 - The Ecology Center, Inc., et al.

To: Appeal Deciding Officer

This is my recommendation on disposition of the appeal filed by Jeff Juel, on behalf of The Ecology Center, Inc.; Alliance for the Wild Rockies; and Friends of the Bitterroot, protesting the Post Fire Vegetation and Fuels Management Record of Decision (ROD) on the Beaverhead-Deerlodge National Forest.

The Forest Supervisor's decision adopts Alternative 4-Modified, which allows the following:

Clearcut approximately 835 acres of dead and dying trees; apply MCH on 303 acres in inventoried roadless area #A1-001; thin 29 acres of live lodgepole pine around large Douglas-fir trees outside the burned area, and apply MCH to create stand conditions that are less susceptible to bark beetle attacks; continue monitoring spruce beetle populations with funnel traps and use funnel traps if necessary on 619 acres; clearcut approximately 17 acres of dead lodgepole and spruce, and slash and burn approximately 25 acres of lodgepole saplings; construct approximately 5.9 miles of temporary road, which will be obliterated after the project is completed; and site-specifically amend the Beaverhead Forest Plan standards for Elk Effective Cover within the Mussigbrod Fires of 2000 burned area.

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 Chief Financial Officers Act, the Government Management Reform Act, the Beaverhead and Deerlodge Forest Plans, the Clean Water Act (CWA), the Montana Water Quality Regulations, and the Administrative Procedures Act (APA). The appellants request a remand of the ROD. They further request if the Forest Service wishes to carry out logging, road construction and reconstruction, and prescribed burning the Forest must prepare an Environmental Impact Statement that remedies all alleged violations of law, policies and regulations. An informal meeting was held but no resolution of the issues was reached.

ISSUE REVIEW

Issue 1. The Post Fire Project is a misappropriation of the National Fire Plan. The project will not bring any human-built structure closer to withstanding fire or educate landowners



about the home ignition zone. The Post Fire project misappropriates funds for forest restoration and uses the funds for a commercial timber sale. The removal of large merchantable trees does not reduce fire risk and may in fact increase risk.

Response: As discussed in the EIS (p. 1.2) and the ROD (p. 12), and found at the National Fire Plan (NFP) web site (www.fireplan.gov), the NFP is more than just clearing the fuel from the home ignition zone. The EIS discusses how this project is responsive to the NFP (pp. 3.2 to 3.14) by reducing fuels adjacent to private lands along the Forest boundary, breaking up the large expanses of heavy fuels in strategic locations, and providing for fire fighter safety. Reducing fuels larger than 3 inches in diameter, as in the Post Fire Project, does have effects on future fire intensities, the persistence of the fire, the time it takes for the fire to burn out, and the resistance of the fire to control efforts (EIS, pp. 3.6 to 3.7, 3.11 to 3.12, 3.25 and 5.12).

The planning for this project, including the preparation of the EIS and implementation are funded with NFP funds. The Post Fire Vegetation and Fuels Management EIS proposed commercial timber harvest for the sake of reducing fuels in order to accomplish more work with the limited funds available. The analysis of the project indicates the removal of standing dead and down trees would accomplish objectives of the NFP. Therefore, the use of NFP funds is appropriate for this project.

Issue 2. The fuels portion of the Post Fire Project does not consider relevant information such as other Forest Service (FS) expert opinion (Hessburg and Lehmkuhl, 1999). The Forest must balance the need to “treat fuel” – meaning remove pieces of biomass – from the units, yet leave the right amounts and sizes of woody debris and snags for wildlife and soil. The fuels objectives are unclear; they cannot be monitored or enforced. No real objective definition of a “dying” tree is disclosed.

Response: The project’s fire and fuels analysis considers 58 publications (PF, Vol. 8). The summary done by Hessburg and Lehmkuhl (1999) was specific to the Wenatchee National Forest’s Dry Forest Strategy, and concerned a live forest in the State of Washington. This project concerns a burned forest in Montana. Never-the-less the project analysis considered many of the same limitations to prescribed fire that Hessburg and Lehmkuhl considered including smoke, the public’s fear of prescribed fire, firefighter safety, cost, damage to residual trees, and lack of economic return (EIS, pp. 3.9 to 3.10 and 5.77).

The Forest is balancing the need to reduce fuel loading with leaving woody debris for wildlife needs and maintenance of soil productivity (EIS, pp. 2.14, 3.25 to 3.26, 3.73 to 3.78 and 3.246 to 3.251). The project will follow the Forest Plan requirement of leaving 10 to 15 tons per acre of large woody debris on harvest sites (EIS, p. 3.251).

There is no need for a definition of a dying tree since all trees with at least 75 percent fire damage will be removed. The directions for tree harvest are stated in the EIS (pp. 2.13 to 2.14). All dead Douglas-fir and spruce greater than 10 inches DBH (except for three snags per acre) would be removed. Live Douglas-fir and spruce with greater than 75 percent direct fire injury to roots, boles, or foliage would be removed. Trees with that amount of damage are at a high likelihood of dying in the near future and also are at increased risk of bark beetle infestation.

The removal of a few live but severely damaged trees inside the burned area is consistent with saving many more live trees outside the burned area (EIS, pp. 3.41 to 3.42).

Issue 3. The FEIS discloses insufficient information on the ecological and economic costs of the fire suppression activities carried out to suppress the Middle Fork and Mussigbrod fires.

Response: Fire suppression activities are one of the many past, present, and reasonable foreseeable actions that were considered as cumulative effects (EIS, p. 2.17). The various specialists considered the fire suppression activities in their analyses of vegetation (EIS, p. 3.51), wildlife (EIS, pp. 3.74, 3.84, 3.94, 3.109, 3.120, 3.126 and 3.132), aquatics (EIS, p. 3.205, 3.209 and 3.230), and soils (EIS, p. 3.249). The economic costs of the fire suppression activities in the summer of 2000 have no bearing on this project 3 years later; however, the project file (Doc. 342) indicates the suppression costs were slightly over \$11 million for the Mussigbrod Complex and almost \$17 million for the Middle Fork Complex.

Issue 4. The FEIS concludes, without adequate disclosure or information, that all necessary ecosystem restoration activities were performed with Burned Area Emergency Recovery (BAER) activities.

Response: The ID team considered an alternative that included restoration activities. Based on monitoring of the BAER restoration activities, the Forest determined the restoration activities met the needs of the landscape and no additional restoration efforts were needed (EIS, p. 2.25). This determination was based on the BAER documents, reports, and assessments found in the project file (PF, Docs. 338 to 355).

Issue 5. The Post Fire Project does not take an Ecosystem Management approach and portrays insects as a negative part of the forest ecosystem. This saving of the forest trees from infestation has been demonstrated to have deleterious effects on species dependent upon forest insects and diseases. The FEIS does not cite any instance where either Forest successfully staved off insect infestations. Projected insect infestations are based on undisclosed risk analysis of stands and are unsupported by data.

Response: The project recognizes that “insects and disease play a natural role in ecosystem processes that influence vegetation succession, composition, and structure. Insects and disease are usually endemic in a healthy, functioning ecosystem in that they are always present, causing minor, localized impacts to trees, shrubs, and grasses” (EIS, p. 1.4). The fires of 2000 impacted a substantial amount of elk, pine marten, and goshawk habitat, and set up a potential situation where large scale insect infestations could lead to further habitat loss for these species in the Mussigbrod and Middle Fork areas (EIS, p. 1.4).

Recognizing there are a number of management options to deal with the potential bark beetle epidemic, and those options have differing effects on the species dependent upon forest insects and diseases, the ID team developed various alternatives (EIS, pp. 2.3 to 2.10). The specialists analyzed the impact the alternatives would have on forest resources, including those species impacted by loss of habitat such as elk (EIS, pp. 3.99 to 3.111), pine marten (EIS, pp. 3.87 to

3.96), goshawk (EIS, pp. 3.78 to 3.85), and those dependent on forest insects and diseases such as the woodpeckers (EIS, pp. 3.73 to 3.78 and 3.96 to 3.99). The team also considered the historical range of bark beetles, their interaction with the ecosystem, and the environmental effects the various beetle treatments would have on forest vegetation (EIS, pp. 3.33 to 3.54).

Neither Forest has experienced fires of this size, or the potential for bark beetle buildup of this scale, in recent history. Therefore, neither Forest has a track record to cite in managing major insect infestations. The ID team based the control strategies and treatment options on published, peer-reviewed literature (EIS, pp. 2.3 to 2.4 and 3.41 to 3.42). The projected insect infestations are based on aerial and stand surveys, field trip reports, and published literature (EIS, pp. 3.35 to 3.38; PF, Docs. 372, 373, 378 to 391, 395, 396, 813, 816, 818, 821, 824, 831 and 841).

Issue 6. The FEIS does not fully disclose the potential direct, indirect, and cumulative impacts of this project on the black-backed woodpecker or ensure population viability. The Forests must prepare a conservation strategy before taking actions that can further reduce habitat for the black-backed woodpecker.

Response: The EIS and Biological Evaluation (BE) analyzed the direct, indirect, and cumulative impacts the project would have on black-backed woodpecker, including fire suppression and salvage logging (EIS, pp. 3.73 to 3.78, and Appendix E, pp. 24, 25 and 43). The wildlife biologist determined Alternative 4-Modified would reduce habitat for 17.1 percent of the woodpecker pairs that could occupy the analysis area (EIS p. 3.75). Based on the amount of burned and unburned forest that would be harvested (PF, Docs. 460 and 461), a literature review of black-back woodpecker biology (PF, Doc. 463) and the current best available data for the Deerlodge and Beaverhead National Forests, the wildlife biologist found black-backed woodpecker habitat is well distributed across the landscape (EIS, pp. 3.77 and 3.78). The wildlife biologist determined the project may impact individuals or habitat, but would not be likely to contribute to a trend towards federal listing or cause loss of viability to the population or species.

According to the Forest Service Manual (FSM 2621.2), units must develop conservation strategies for those sensitive species whose continued existence may be negatively affected by a proposed project. The wildlife biologist determined this project would not contribute to a trend towards federal listing or cause loss of viability to the population or species. Therefore, a conservation strategy is not required.

Issue 7. The Deerlodge NF considers the pileated woodpecker to be a management indicator species (MIS). However, the Beaverhead NF, where most of the project activities would occur, does not recognize the pileated woodpecker as a species needing any consideration even though the species occurs on the Forest.

Response: It is not unusual for adjacent National Forests to choose different management indicator species. In this case the Beaverhead National Forest chose goshawk and marten to represent species that use old growth habitat. The Deerlodge National Forest chose three additional species: hairy, three-toed, and pileated woodpeckers as old growth MIS (EIS, pp. 3.78 to 3.85 and 3.87 to 3.99). The ID team appropriately analyzed the impacts to the various old

growth MIS in the EIS based on which Forest had designated which MIS and where the fires had burned. Designation of a new MIS for the Beaverhead National Forest is not appropriate at the project level.

Issue 8. The FEIS fails to ensure adequate habitat protection and population viability of northern goshawk. The FEIS dismisses the project's impacts on goshawks without any population data or population trend data, as required by the Forest Plan and NFMA regulations. The FEIS does not consider Reynolds, et. al. (1992) recommendations for protecting nest areas, post-fledging family areas, and foraging areas. The FEIS should have considered the issue of fragmentation more thoroughly with respect to goshawks. Forest Plan monitoring reports do not provide any indication of population trends for goshawk in the Mussigbrod and Middle Fork fires.

Response: The EIS analyzed the direct, indirect, and cumulative impacts the project would have on goshawk (pp. 3.78 to 3.85). The analysis is based on goshawk surveys done in the Mussigbrod area since 1990 (PF, Docs. 435 and 477), habitat viability analysis for mature and old growth forests (PF, Doc. 840), the amount of goshawk habitat that burned versus how much did not burn (EIS, pp. 3.78 and 3.79), published literature including Reynolds, et al. (1992) (EIS, pp. 3.79 to 3.80, and Appendix E, p. 25), and how much of the burned habitat would be harvested (EIS, pp. 3.82).

In litigation regarding the Upper Sunday Timber Sales on the Kootenai National Forest, the U.S. District Court of Montana ruled "Neither is it plainly erroneous or inconsistent with regulation for the Forest Service to strive to maintain viable populations of species by focusing on the critical habitat requirements of Sensitive, Threatened, and Endangered species within and without the Decision Area." On July 3, 1996, the 9th Circuit Court of Appeals affirmed the District Court Summary Judgment. The wildlife biologist found that habitat for goshawk is well distributed across the Beaverhead and Deerlodge National Forests (EIS, p. 3.85). The Forests are maintaining a viable population by maintaining the habitat, in compliance with NFMA. He determined the project may impact individuals or habitat, but will not likely result in a trend toward federal listing or reduce viability for the population or species (EIS, p. 3.64, and Appendix E, pp. 1 and 43).

The wildlife biologist considered biodiversity, fragmentation, and linkages as an issue affecting many species, and so discussed them as a group under one heading rather than under each species individually (EIS, pp. 3.128 to 3.133). The project is in compliance with the Forest Plans and NFMA.

Issue 9. The FEIS fails to ensure adequate habitat protection and species viability for pine marten as NFMA requires. The FEIS makes no determination regarding the significance of the pine marten habitat losses associated with past or proposed vegetation treatments. The FEIS does not comply with Beaverhead Forest Plan monitoring standard for MIS. Forest Plan monitoring reports do not provide any indication of population trends for pine marten in the Mussigbrod and Middle Fork fires.

Response: The EIS analyzed the direct, indirect, and cumulative impacts the project would have

on marten (pp. 3.89 to 3.96). The wildlife biologist found that habitat for marten is well distributed across the Beaverhead and Deerlodge National Forests (EIS, p. 3.96). A large portion of the formerly occupied habitat in the watersheds of Johnson and Bender Creeks was severely burned by the Mussigbrod Fire and may now be a population sink for marten. However, the existing marten population is connected with other population in the Bitterroot National Forest and the Anaconda-Pintler Wilderness, and in the absence of more large wildfires, it is likely the availability of mature and old growth forest will be adequate to maintain a viable marten population, as long as the analysis areas is connected with source areas (EIS, p. 3.94). As far as the Middle Fork area is concerned, there would be no cumulative effects from the project on marten (EIS, p. 3.96). Plan monitoring is done on the Forest-wide level. It is not expected that population trends for species in a specific project area would be monitored or reported. The project is in compliance with NFMA.

Issue 10. The FEIS fails to disclose and analyze the population status of other sensitive species, such as fisher, boreal toad, and wolverine.

Response: The EIS analyzed the direct, indirect, and cumulative impacts the project would have on fisher, boreal toad, and wolverine (pp. 3.65 to 3.68 and 3.71 to 3.72; Appendix E, pp. 2, 6 to 11, 19, 21 to 22, 29 to 30, and 43).

Issue 11. The FEIS violates NEPA, NFMA, and ESA by failing to fully assess cumulative impacts to Canada lynx, and ensure adequate habitat protection that will maintain species viability. The U.S. Fish and Wildlife Service (USFWS) listing of the lynx as “threatened,” rather than endangered, and the failure to designate critical habitat, was recently held to be a violation of the ESA. The FEIS and Biological Assessment (BA) fail to fully demonstrate project consistency with all Lynx Conservation Assessment and Strategy (LCAS) standards and guidelines. We question the validity of the percentage habitat standards set by the LCAS itself.

Response: The EIS displays the direct, indirect, and cumulative impacts the project would have on Canada lynx (EIS, pp. 3.61 to 3.62 and 5.41 to 5.42). Canada lynx was analyzed in the Biological Assessment (EIS, Appendix J, pp. 11 to 21), which discusses how the project meets the LCAS (EIS, Appendix J, pp. 19 and 20). The wildlife biologist determined the project “may affect the lynx but is not likely to adversely affect the lynx or its habitat” (EIS, Appendix J, p. 21).

The LCAS is the best available science on lynx. The LCAS was authored by a team of scientists and researchers and based on numerous publications. The listing of lynx as a threatened species and the designation of critical habitat by the USFWS is not reviewable under 36 CFR 215. However, I should point out that the USFWS published a clarification of findings on Canada lynx in the July 3, 2003, Federal Register. In that clarification they state, “As a result of our reanalysis...which was directed by the Court, we find that the lynx is not endangered throughout a significant portion of its range...the lynx continues to be listed as threatened...” The USFWS also considered the Court’s order to designate critical habitat. They stated, “This [clarification of findings] does not address critical habitat for the lynx, since our listing budget is currently insufficient to begin work on a rule for critical habitat. The Service will seek public comment in

the future when it proposes critical habitat” (Fed. Register, Vol. 68, No. 128, p. 40076). In their biological opinion the USFWS concluded, “the Vegetation and Fuels Management project, as proposed, is not likely to jeopardize the continued existence of the Canada lynx. The impact to the lynx and its habitat would be insignificant and/or discountable. No critical habitat has been designated for this species, therefore, none will be affected” (PF, Doc. 495, p. 20). Regarding incidental take they stated, “Since no incidental take is expected, there will be no effects to lynx due to take” (PF, Doc. 495, p. 21). The EIS is in compliance with NEPA, NFMA, and ESA.

Issue 12. The ROD’s adoption of Alternative 4-Modified authorizes the logging of old growth. Although burned, these areas still have habitat value for wildlife. The FEIS must disclose the methodology for maintaining viable populations of old growth species. The FEIS does not disclose the location and size of viable population of MIS and TES species and the great gray owl.

Response: During the summer of 2001 the District silviculturalist field-verified the old growth to determine whether or not the fires had impacted the old growth. The fires of 2000 burned through 21,338 acres of old growth spruce and 1,088 acres of old growth Douglas-fir. The fires in 2002 eliminated an additional 350 acres of old growth spruce and 160 acres of old growth Douglas-fir. The fires eliminated old growth conditions on the intense burns that covered half of the area and reduced much of it in the other mosaic burned area. Due to the fires, harvest units 9, 14, 31f, 32f, 33f, 34f, 36f, 37f and 101 no longer meet the old growth characteristics as defined by Green, et al. (1992). Prior to the fire, old growth occupied 20 percent of the analysis area. After the fires the area still has 13 percent old growth (EIS, p. 123). The EIS displays which timber compartments meet Forest Plan old growth standards and which do not after the fires in 2000 (EIS, pp. 3.122 to 3.127). Only four compartments do not presently meet the 10 percent old growth standard (p. 3.127).

Under Alternative 4-Modified, some harvest would occur in one 29-acre unburned Douglas-fir stand that meets old growth criteria. In this treatment unit live lodgepole pine will be removed from around the large Douglas-fir trees. The treatment will not eliminate the old growth character of the stand (EIS, p. 3.127).

The EIS discusses the methodology the biologist used in assessing population viability (p. 3.64). Satellite imagery was used to identify Forest-wide habitat distribution for the viability analyses. Where possible, information about species records and quantity of habitat available was provided (EIS, p. 3.57 to 3.58). The maps used in the wildlife habitat analysis are located in the project file (Docs. 811, 837 to 842, and 845).

Issue 13. The FEIS does not adequately consider cumulative effects. It does not discuss how helicopters and other logging and burning activities will affect individual mammals and birds that are using the areas when the disturbances occur. The FEIS fails to disclose the ramifications on wildlife species’ viability.

Response: The EIS goes into considerable detail concerning the past, present, and reasonably foreseeable future actions that constitute cumulative effects under each resource heading and

each wildlife species discussed in Chapter 3 (EIS, pp. 2.15 to 2.22 and 3.28 to 3.133; Appendices E and J). The wildlife biologist made viability determinations for threatened, sensitive, and MIS species. There is no requirement to discuss impacts on individual mammals and birds.

Issue 14. The habitat analysis is based on scientifically flawed methodology. The GIS database habitat information is on average 15 years old, canopy closure estimates are inaccurate, and data do not exist for the abundance of snags or down woody material. The FEIS provides no indication of the accuracy of the database information it relies upon for wildlife habitat modeling.

Response: The BDNF used the best information available for the GIS analyses. Satellite imagery was used to perform the analysis of Forest-wide distribution of habitat for viability analyses. Where possible, information about species records and quantity of habitat available was provided (EIS, pp. 3.57 to 3.58, and throughout Wildlife section).

Issue 15. The soil productivity analysis violates NFMA and NEPA.

Response: The EIS documents the existing condition of the soils resource (pp. 3.234 to 3.237), and the past impacts from grazing, logging, mining, recreation, roads and trails, weeds, and the wildfires (pp. 3.238 to 3.239). It discusses the procedure and methods the soil scientist used to assess the health and impacts to the soil (pp. 3.240 to 3.241), the analysis of the activity area, the watershed scale analysis (pp. 3.241 to 3.242), and Beschta, et al. (1995) (p. 243). Following that, the soils scientist discusses the direct and indirect effects the five alternatives would have to the soil resource (EIS, pp. 3.244 to 3.248), including Table 3.69, which displays the existing acres and percentage of detrimentally-disturbed soil for each treatment unit, and the acres and percentage of detrimentally-disturbed soil each treatment unit would have after the project is completed. He then discusses the cumulative effects of the project (EIS, pp. 3.249 to 3.251). Chapter 5 (pp. 5.66 to 5.69) responds to comments and concerns about the soil resource. Included as appendices to the EIS are Appendix H, which goes into greater detail about recommendations from Beschta, et al. (1995), and Appendix G, which is the Soils and Water Conservation Practices Handbook. This information in the EIS is based on soil notes, calculations, survey data, maps, and literature found in the project file (Docs. 555 to 589). The soil analysis is in compliance with NEPA and NFMA.

Issue 16. The fire analysis violates NEPA. The Forest Service failed to spend any resources educating homeowners in the wildland/urban interface on how to best protect their homes from wildfire, as Cohen's research strongly suggests. The FEIS also fails to disclose the increased risk of human-caused fire starts because of ever-increasing access into the area by ATV users and from the new access facilitated by constructed or reconstructed roads. The Forest needs to provide specific cites of scientific support that the proposed logging activities will in fact reduce future fire risk. The 1995 Federal Wildland Fire Management Policy and Program Review (FWFMPPR) required the FS to prepare Fire Plans for the Beaverhead-Deerlodge National Forest, yet the FS has failed to respond since the FWFMPPR policy was adopted in 1995. There has been no public involvement with forest wide fire planning.

Response: The Forest Service does not need to conduct NEPA analysis to do homeowner wildfire education. For example, the Beaverhead-Deerlodge National Forest web page has a link to the Firewise web page that instructs homeowners on ways to protect their homes from wildfire. The Purpose and Need for this project is to respond to the post fire vegetation and fuels situation in the project area. The project analysis is based on the purpose and need for action.

The EIS (p. 3.18) indicates from 1940 to 2001 there were 500 fires in the area, 65 percent of which were caused by lightning and 35 percent were human caused. Regardless of the cause of the fire, continuous heavy fuels are a threat to property, health, and safety which this project is attempting to address (EIS, p. 1.3). The project will not add any permanent roads to the area. The 5.9 miles of temporary roads that are needed to complete the project will be obliterated after the project is completed (ROD, p. 21). Access to the area will not be increased.

In the Response to Comments (EIS, pp. 5.12 and 5.13), the Forest discusses the use of literature to support the analysis concerning logging and fire severity. The discussion of fuels, fuel loading, fire behavior, and the environmental effects for fire and fuels (pp. 3.2 to 3.28) includes numerous citations. It is also interesting to note during a field trip to the project area the EPA saw “where clearcut areas appeared to have avoided the severe burning that had occurred on adjacent uncut areas. It was stated that the younger tree growth in these clearcut areas retained more moisture and had reduced fire risk. Some of these observations had led to the proposals for strategic fuel reductions in the proposed BDNF Post-Fire Vegetation and Fuels Management Project to break up fuel continuity for reducing risk and better managing future wildfires” (PF, Doc. 651, p. 4).

The FWFMPPR is discussed in the EIS (pp. 3.14 to 3.15). Implementing FWFMPPR will take a Forest Plan amendment and a Forest-wide analysis to determine when and where fire-use plans are appropriate. This is most appropriately analyzed in conjunction with the ongoing Forest Plan revision (EIS, p. 5.10). The fire analysis is in compliance with NEPA.

Issue 17, Contention A: The FEIS notes that Johnson, Mussigbrod, Trail, Tie, and Pintler Creeks, and the North Fork of the Big Hole River within or near the project area are listed as being “water quality limited”. The states are required to develop Total Maximum Daily Loads (TMDL) for these waters. In the absence of a TMDL, federal agencies have a duty to avoid further degradation of water quality limited stream segments. The addition of sediment to water quality limited streams from logging activities will further degrade them. This project is violating the Forest Plan by not protecting water quality and the City of Butte’s watershed. The Post-Fire project as embodied by Alternative 4 modified in the ROD, violates the duty to avoid further degradation and thereby violates the Clean Water Act.

Response: In their letter commenting on the Post Fire project the Montana Department of Environmental Quality stated, “State and federal clean water laws require that Total Maximum Daily Loads (TMDLs) be developed for all waterbodies on the 303(d) list” (PF, Doc. 693, p. 2). “DEQ has developed a schedule for completing TMDLs for the 91 watershed planning areas. [The] creeks in the North Fork Big Hole River Watershed Planning Area [are] scheduled for TMDL completion in 2004” (PF, Doc. 693, p. 3). “Pending completion of a TMDL, new and

expanded nonpoint source activities may commence and continue provided those activities are conducted in accordance with reasonable soil, land and water conservation practices (MCA 75-5-703). The Administrative Rules of Montana (17.30.602) define these as ‘methods, measures, or practices that protect present and reasonably anticipated beneficial uses.’ This can be interpreted as maintaining a healthy aquatic system that supports a sustainable fishery” (PF, Doc. 693, p. 3).

The project is applying all reasonable soil and water conservation measures. The ID team identified BMPs for soil and water conservation, and the effectiveness of these measures (EIS, Appendix G). Beyond that, the team included project-specific mitigation measures that are designed to protect soil and water resources (ROD, Appendix B, pp. 1 and 2; EIS, pp. 2.11 to 2.12). As discussed in the EIS (p. 3.135), the Big Hole Watershed is part of the water supply for the City of Butte. By applying all reasonable land, soil, and water conservation practices the Forest is in compliance with the Administrative Rules of Montana.

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The Montana DEQ (PF, Doc. 693, p. 1) and EPA (PF, Doc. 694, p. 1) had concerns about riparian zone tree harvest. In response to those concerns the Deciding Official elected to eliminate all Middle Fork and most Mussigbrod riparian harvest (ROD, p.1). Forty-two acres of harvest in willow stands along Johnson Creek is still included in the project in order to enhance the regrowth of the willows. All pertinent BMPs and stream management zone guidelines would be met, and the above-mentioned soil and water conservation practices will limit harvest effects to the lowest intensity and shortest duration possible (ROD, p. 10).

The Montana DEQ also had concerns about temperature increases due to streamside shading (PF, Doc. 693, p. 1). As the fisheries biologist explains,

“The effects that can be expected in the absence of treatments for willow recovery are reduced regrowth of riparian vegetation inside the burn along Johnson Creek leading to higher stream temperature over the next several years than if willow growth was facilitated by removing heavy accumulations of coarse woody debris in riparian areas. This area was historically occupied predominantly by willow. Large woody debris is less important in streams with healthy willow bottoms where willows play an important role in maintaining physical and biological stream channel integrity. Their strong root systems hold streams and riparian zones together during high flows and prevent excessive streambank erosion (Elmore and Beschta 1987, Platts 1991). This maintenance of streambanks prevents channel widening that can subsequently lead to increased summer water temperatures” (EIS, pp. 3.186 to 3.187).

Since sediment levels are expected to be minimal, and instream large woody debris is already above reference conditions, the fisheries biologist determined, “[o]f all the fish habitat parameters (EIS, p. 3.171, Table 3.51), a change in stream shading leading to a change in stream temperatures is the more likely parameter to be affected by spruce beetle epidemic (no action) or the removal of trees by the action alternatives” (EIS, p. 184). Due to the low air temperatures associated with the high elevation streams in the project area and the limited shade provided by burned trees, water temperatures are not expected to increase to levels high enough to affect fish (EIS, p. 3.200). Therefore, while some small increases in sediment, water yields, and daily maximum temperature are expected from the action alternatives, due to the small magnitude of

the predicted increases and the long distances between the treatment areas, no effects on the fishery or habitat would be expected in the North Fork Big Hole River system (EIS, p. 3.194). The project will maintain a sustainable fishery, and is in compliance with the Forest Plans and the Clean Water Act.

Issue 17, Contention B. The FEIS does not disclose the statistical accuracy of the WATSED model, which was used to estimate sediment production caused by project activities, as required by Forest Plan standards. The FEIS provides no data to substantiate its claims that streams in the project area are, in terms of sediment yields, at “baseline” levels. The project as described does not adequately account for, or mitigate, watershed damage resulting from the use of haul roads, especially in drainages already suffering from cumulative impacts.

Response: The appellants place an inordinate amount of weight on the WATSED program itself. The model has been tested and validated. WATSED is a credible tool used to compare alternatives. The WATSED model greatly simplifies very complex physical systems using a limited database. The results should be treated as a broad estimate of how a real system may operate, not a prediction within a certain statistical accuracy. This modeling program is but one of the many tools, inventories, models, observations, monitoring, and surveys that were used by the professional soil scientist to draw and present conclusions in the EIS.

The baseline sediment levels are the natural amount of sediment produced in the watershed. Tables 3.54 and 3.55 indicate this is 490 tons per year (EIS, p. 3.183). The EIS does not claim the streams are at baseline levels. In the discussion of sediment yields the EIS states, “Sediment inputs to streams typically increase after fires...Sediment yields are expected to increase slightly as a result of the fire” (p. 3.197). For example, the EIS (p. 3.182) indicates sediment in Trail Creek is about 12 percent over base rate. Tables 3.54 and 3.55 (EIS, p. 3.183) do take into account the amount of sediment being produced by roads as part of the total sediment projection. The project is in compliance with the Forest Plans.

Issue 18. In violation of NEPA, roadless and unroaded area impacts are not adequately analyzed by the Post-Fire project FEIS. The FEIS failed, as required, to incorporate the Roads Analysis Process.

Response: Consistent with current direction for management of inventoried roadless areas, the Post Fire project does not propose commercial timber harvest or road construction in any inventoried roadless area (ROD, p. 45; EIS, p. 2.22). The EIS analyzed the impact to roadless areas as part of the recreation analysis (EIS, pp. 3.265 to 3.269; PF, Doc. 612). The only management activity that will occur in roadless is the application of MCH (an anti-aggregation pheromone) to deter Douglas-fir beetles (ROD, p. 8). This will have no effect on the roadless character (EIS, p. 3.266). The Draft Roads Analysis for the Post Fire project can be found in the project file (PF, Doc. 634). The project is in compliance with NEPA.

Issue 19. The FEIS and ROD do not satisfy the economic requirements of NFMA, the Forest Plans, and federal financial reporting laws. There is an inaccurate and incomplete economic analysis in the FEIS. Page V-6 of the Forest Plan states the importance of

protecting water quality and fisheries in the Big Hole drainage, and that timber harvest are allowed where it will benefit the resource and a positive cash flow from the timber harvest can be expected. The FEIS claims the timber sale will benefit the resource but it does not claim it will make money. Therefore it violates the Forest Plan.

Response: Project-level economic analysis does 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 economic implications that are unique to the decisions made at this management level, as was done in the FEIS (pp. 3.280 to 3.284). Under the *Economic Efficiency* subheading, the economic analysis does include a discussion of non-market benefits.

The Forest Plan does not have a standard that says only timber sales with a positive cash flow may be implemented in the Big Hole basin. Page V-6 of the Forest Plan states, “there are areas in the Big Hole drainage that can benefit from timber management and where a positive cash flow from timber harvest can be expected. These lands remain in the suitable timber base and will be scheduled for harvest sometime in the planning horizon. In areas where timber harvest is scheduled, Forestwide and Management Area standards will be applied to protect other values while insuring efficient use of the timber resource.” The purpose and need of this project includes hazardous fuels reduction and limiting the expansion of bark beetles (EIS, pp. 1.3 to 1.5). A timber sale may be used in order to complete the project. The economic analysis complies with all laws, the Forest Plan, and the Forest Service Manual and Handbook.

Issue 20. NFMA and the Forest Plan require annual economic monitoring. The Beaverhead-Deerlodge National Forest no longer produces a financial analysis or TSPIRS report. Since the TSPIRS report can no longer be used to satisfy the economic monitoring requirements, there is no fiscal monitoring occurring. The Forest and this FEIS and ROD are in violation of the Chief Financial Officers Act of 1990 and the Government Management Reform Act of 1994.

Response: The Beaverhead-Deerlodge National Forest continues economic monitoring of timber sales. Financial information for each timber sale is entered into the Timber Sale Accounting System, a nation-wide database. This information is used to provide Congress and the public with a clear understanding of what is accomplished with appropriated funds and the revenues generated. The FEIS and ROD are in compliance with NFMA, NEPA, and the Forest Plan.

The Chief Financial Officers Act of 1990 established Department-level Chief Financial Officers and Agency-level financial reporting statements. The Government Management Reform Act of 1994 requires the preparation of Agency-level audits of the annual financial statements. Compliance with both of these Acts is far outside the scope of this project.

Issue 21. The 15-year limitation on the Forest Plans has expired, and the Forest Plans no longer meet the legal requirements of NFMA.

Response: On February 14, 2003, Congress passed House Joint Resolution 2, also known as the Consolidated Appropriations Resolution, 2003. Sec. 320 of the resolution states, “Prior to October 1, 2003, 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. Nothing in this section exempts the Secretary from any other requirement of the Forest and Rangeland Renewable Resources Planning Act (16 U.S.C.1600 et seq.) or any other law: Provided, that if the Secretary is not acting expeditiously and in good faith, within the funding available, to revise a plan for a unit of the National Forest System, this section shall be void with respect to such plan and a court of proper jurisdiction may order completion of the plan on an accelerated basis.” The Beaverhead-Deerlodge Forest Plan Revision is currently underway and a proposed action should be available for review by the summer of 2003.

Issue 22. The selected alternative logs in Management Areas (MAs) 1, 14, and 25 of the Beaverhead National Forest, which are “unsuitable for timber production”. For these MAs, the Forest Plan states, “timber salvage and firewood removal may occur where access exists” (FP, pp. III-3, III-45, and III-80). However, since the FEIS doesn’t disclose where the roads to be constructed for the Post-Fire project are, it cannot demonstrate consistency with the Forest Plan standards.

Response: Management Area 14 has no treatments proposed in it (EIS, pp. 1.11, Table 1.2; ROD, Alternative 4-Modified Treatments table [located between Map 2 and Appendix A in the back of the ROD]). Therefore, the Forest Plan standards for MA 14 are of no consequence in this project.

As indicated in the FEIS and ROD, treatment units 2, 6, 9, 12, and 12f are located in either MA 1 or 25. Treatments units 2 and 6 only involve the application of MCH, so timber-harvesting standards do not apply. Treatment unit 9 is in Management Area 1 (ROD, Alternative 4-Modified Treatments table [located between Map 2 and Appendix A in the back of the ROD]). The Management Area 1 timber harvest standard states: “Timber harvest will not be scheduled in this Management Area. The Management Area is unsuitable for scheduled timber management. Timber salvage and firewood removal may occur where access exists. Salvage of dead, dying or high-hazard trees is permitted to prevent disease and insect population build-up” (Forest Plan, p. III-3). Treatment unit 9 is adjacent to a Forest road and there are existing roads in it that are part of the Mussigbrod Post Fire Road Study Project (compare the following maps in the project file: Docs. 811, 833, and 843). (For more information about the Mussigbrod Post Fire Road Study Project see Cumulative Effects, Item 22 [EIS, p. 2.20]). Access already exists up to and throughout treatment unit 9, and there are no proposed temporary roads in the vicinity of treatment unit 9 (PF, Doc. 843). Unit 9 is in compliance with the Forest Plan.

Treatment units 12 and 12f are in Management Area 25 (ROD, Alternative 4-Modified Treatments table [located between Map 2 and Appendix A in the back of the ROD]). The Management Area 25 timber harvest standard states: “Timber harvest will not be scheduled in this Management Area. The Management Area is unsuitable for scheduled timber management.

Timber salvage and firewood removal may occur where access exists. Salvage of dead, dying or high-hazard trees is permitted to prevent disease and insect population build-up” (Forest Plan, p. III-80). The Facilities standard states: “Road construction and reconstruction may occur to support management activities, or to access adjacent Management Areas and support activities scheduled there” (Forest Plan, p. III-81). According to the cumulative effects map (PF, Doc. 843), a very short amount of temporary road would be built on the west side of treatment unit 12f. This is in compliance with the Facilities standard for Management Area 25 (Forest Plan, p. III-81). Additional field surveys done during preliminary project layout have found the expected tree mortality did not occur in units 12 and 12f. The entire treatment units 12 and 12f are being dropped (PF, Doc. 733). The issue concerning unit 12 and 12f is moot. The project is in compliance with the Forest Plans.

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