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File Code: 1570-1/2400
Date: May 17, 2004

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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

RE: Appeal #04-03-00-0012-A215, Rodeo-Chediski Fire Salvage Project Record of Decision and Environmental Impact Statement, Apache-Sitgreaves and Tonto National Forests

Dear Ms. Cooley:

This is my review decision on the appeals filed regarding the Record of Decision Notice (ROD) and Environmental Impact Statement (EIS) on the above-referenced project, which provides harvesting of dead standing trees on or over 12 inches dbh on 34,156 acres; fuelwood harvesting on an additional 6,903 acres; construction of approximately 18.2 miles of temporary road segments; and opening and closing of 100 miles of Level 1 roads. This will provide about 75.8 mmbf of salvage from the Apache-Sitgreaves and Tonto National Forests.

BACKGROUND

Forest Supervisor Zieroth (Apache-Sitgreaves) and Deputy Forest Supervisor Klabunde (Tonto) made a decision on February 12, 2004, for the Rodeo-Chediski Fire Salvage Project. The Forest Supervisors are identified as the Responsible Officials, whose decision is subject to administrative review under 36 CFR § 215 appeal regulations. Center for Biological Diversity (Robin Cooley), with Sierra Club Grand Canyon's Chapter, and Southwest Forest Alliance, filed an appeal of this decision under 36 CFR 215 appeal regulations.

Pursuant to 36 CFR § 215.17, an attempt was made to seek informal resolution of the appeal. The project record indicates that informal resolution was not reached.

My review of this appeal has been conducted in accordance with 36 CFR § 215.18. I have reviewed the appeal project record, including the recommendations of the Appeal Reviewing Officer. My review decision incorporates the appeal project record.

APPEAL REVIEWING OFFICER'S RECOMMENDATION

The Appeal Reviewing Officer found that: a) the decision logic and rationale were generally clearly disclosed; b) the benefits of the proposal were identified; c) the proposal and decision are consistent with agency policy, direction, and supporting information; and d) public participation and response to comments were adequate.

APPEAL DECISION

After a detailed review of the project record and the Appeal Reviewing Officer's recommendation, I affirm the Responsible Officials' decision on the Rodeo-Chediski Fire Salvage Project.

This decision constitutes the final administrative determination of the US Department of Agriculture [36 CFR § 215.18(c)].

Sincerely,

/s/ Abel M. Camarena
ABEL M. CAMARENA
Appeal Deciding Officer,
Deputy Regional Forester

cc: Mailroom R3 Apache Sitgreaves, Mailroom R3 Tonto, Daniel Crittenden, Constance J Smith, Leonard Lucero, Jon Schendel, Elaine J Zieroth, Karl Siderits, Jimmy E Hibbetts

cc (w/copy of ARO ltr) to:

Sierra Club (Grand Canyon Chapter) 202 E. McDowell Rd, Suite 277, Phoenix AZ 85004
Southwest Forest Alliance PO Box 1948, Flagstaff AZ 86001

REVIEW AND FINDINGS

of

John Talberth, Forest Conservation Council's and
Robin Cooley, Center for Biological Diversity's

Appeals #04-03-00-0011/0012-A215

ISSUE 1: The Rodeo-Chediski Environmental Impact Statement (EIS) violates National Forest Management Act.

Contention A: The Rodeo-Chediski EIS project is inconsistent with the Mexican spotted owl (MSO) Standards and Guidelines. The appellant makes the argument that MSO have returned to burned areas. Therefore, the standards and guidelines should remain, such as the 24" dbh limit in the mixed-conifer and pine oak.

Response: The EIS follows the Apache-Sitgreaves and Tonto National Forests' Land and Resource Management Plans (LRMP) as amended, and the MSO Recovery Plan (PR #82). Only dead trees in the moderately to severely burned areas will be salvaged, and no live trees will be harvested. The U.S. Fish and Wildlife Service (FWS) anticipates that MSO will no longer use moderately to severely burned areas within the Protected Activity Centers (PACs) for nesting, roosting, and foraging (PR #109). Post-fire MSO surveys detected birds in moderately to severely burned areas outside of PACs in steep-walled canyons where microhabitat conditions were different from the general forest (PR #109). Disturbance from logging and hauling will be mitigated through the avoidance of seasonal restrictions for harvest and hauling; some roads will be avoided; and speed limits will be implemented on other roads. Logging traffic accounts for 39 percent of the pre-fire traffic levels (EIS, PR #84, and PR #91). FWS concluded that the proposed actions are not likely to jeopardize the continued existence of the MSO. Additional mitigations under the preferred alternative include no salvage logging in PACs or within a quarter mile of an active nest and snag densities that will meet or exceed LRMP (EIS, PR #84 and PR #91). In areas where logging will occur within a quarter mile of a PAC, 5 snags per acre will be recruited from the largest size classes on-site (EIS, pp. 150 and 305). If the 24" and larger size classes are not available, then retention snags will be selected from the largest size classes remaining in that portion of the landscape.

Finding: The Rodeo-Chediski Fire Salvage Project is consistent with the MSO Standards and Guidelines in the Forest Plans.

Contention B: Rodeo-Chediski EIS fails to ensure the viability of Management Indicator Species (MIS).

Response: The appropriate MIS are identified and discussed in the EIS and PR #91. Species are analyzed at different spatial scales, discussed both quantitatively and qualitatively, and a monitoring plan is described (EIS). Population trend data is compiled from available sources consistent with 36 CFR 219.19 and the recent Corner Mountain Decision.

Finding: Data used in this analysis is consistent with recent court opinions and appropriate for the decision level and viability of Management Indicator Species will be maintained.

ISSUE 2: The Rodeo-Chediski Environmental Impact Statement violates National Environmental Policy Act.

Contention A: Rodeo-Chediski EIS does not meet the stated purpose and need statement, which is to remove dead trees from burned area while the trees have some economic value, usually limited to 18-24 months after tree death. Most of the trees have lost their economic value, and Purpose and Need cannot be met.

Response: The purpose and need is to remove dead trees from portions of the burn area while the trees still have economic value. Dead trees in the fire area are starting to deteriorate; and, depending on environmental factors, trees can lose their economic value as timber in 12 to 18 months from their death (EIS, p. 7, Purpose and Need). Further discussion on deterioration is in the Fuels report, which says that at the end of 3 years, staining will be at its peak; affecting over 75 percent of cubic foot volume (PR #25, pp. 8-10).

Salvage harvesting and associated activities could occur over a period up to 3 years, before the commercial value is significantly reduced due to insects, weathering ,and decomposition (EIS, p. 8). The salvage sales sold in 2003 under Categorical Exclusion authority were bid up above the standard rate (PR #84, pp. 10-11).

Finding: Economic values are estimated to have remained up to 3 years after the wildfire of 2002, and experience has shown that the salvage has value in the timber market in the area. The purpose and need of the project can be met.

Contention B: Rodeo-Chediski EIS fails to consider a reasonable range of alternatives. Appellants state there is very little difference among the four action alternatives. All propose salvage logging over large areas and include Black Canyon and Canyon Creek watersheds (riparian habitat, MSO). Other alternatives presented during scoping were ignored or summarily rejected, such as a Conservation and Local Economy alternative with no logging and doing ecosystem restoration, road closure alternatives; and there were no alternative(s) that included a research component.

Response: Significant issues identified from public comment (PR #16, #21, #41, #47, #73), included effects to soil and water from salvage logging and effects to wildlife species dependent on down woody debris. The responsible officials reviewed the project record and made a determination of the alternatives to consider in detail (PR #77). A summary of the process is in the EIS, pp. 13-15. Alternative 3 was developed in response to the soils issue (EIS, p.18), while Alternative 4 was developed in response to the wildlife habitat issue (EIS, p.19). Three alternatives considered but eliminated from detailed study are outlined on page 29 of the EIS.

The record reflects that aspects of the alternative suggested by Center for Biological Diversity were considered as shown below. (See CBD's letter of September 25, 2002, in their *Conservation and Local Economy alternative,* submitted as comment on the scoping for this project (PR #16, Letter #28, pp. 7-8). A similar alternative was suggested by Sierra Club in the comments on the EIS (ROD Appendix F, Comment Letter #15).

- Several efforts have been taking place in Arizona between state, private, and federal agencies with public involvement. These efforts respond to the CBD alternative's call for *aggressive homeowner education efforts*. The interagency Fire Wise website is set up to specifically help homeowners protect their homes (see http://www.firewise.org/www/down_win.htm)**.** Adoption of the National Fire Plan as an amendment to the two Forest Plans is not needed in order to carry out collaborative fire planning and public safety measures near communities.

- An EA was completed to address *wildland-urban-interface areas near communities that have not yet received WUI treatments* in December 2002. About half of wildland-urban-interface acres on National Forest lands within one-half mile of private land boundaries are in the process of having dead trees removed, with 12,400 acres of treatment on non-commercial woody material treatments and 3,875 acres of commercial timber sale treatments (ROD p. 3).

- *Utilization of the Beschta report, and following recommendations of Beschta report and Mexican spotted owl recovery team,* see responses to those issues elsewhere in this review.

- *Post-fire salvage harvest where needed to ensure public safety* was resolved in earlier Categorical Exclusion decisions to harvest for public safety along roads and campgrounds. See the Recreation Resource Assessment report (PR #26) which talks to campgrounds and trails that were in the burn area and the hazard trees that needed to be removed. Also see the Decision Memo on treatment of dead trees adjacent to roads, trails, developed recreation sites, and concentrated use areas (PR #57). See the Decision Memo for treatment of dead trees along fences and utility lines, including fire-killed trees adjacent to Highway 260 and private fence lines (PR #58).

- *Ensuring that economic benefits remain with local communities* has been seen with local spending on rehabilitation efforts investing $10,000,000. Jobs created through salvage will be created locally as well for the short term of the operations, see EIS, p. 215.

- *Road rehabilitation through use of road closures:* Rehabilitation efforts needed are outlined in the Roads Analysis and Transportation reports. This includes needed maintenance that has been deferred. (PR #32, #88). A total of 100 miles of Level 1 roads (previously closed roads) will be used and closed again under the selected Alternative 4 (PR #88, p. 59; ROD, p. 13). About 18.2 miles of newly constructed temporary roads will be closed to future use by decommissioning (PR #109A, ROD Response to Comments Appendix D, p. 63, comment #015-3; and ROD, p. 13).

- *Monitoring of impacts to soils and wildlife* is included in the selected alternative; see EIS, pp. 27-29; EIS Appendix F; and ROD, pp. 7-8.

- *Regarding eliminating grazing in burned areas,* all domestic livestock were removed from the analysis area after the Rodeo-Chediski fire (PR #109A, ROD Response to Comments Appendix D, p. 53, comment #012-4; and PR #91 Wildlife report, p. 7). Livestock will not be permitted back in most areas of the burn until the area has adequately recovered, which is estimated to be a minimum of 3 to 5 years.

- *Regarding establishment of Research Natural Areas* or a research component, a number of research plots to study fire effects have been established by agency fire ecologists throughout the analysis area in both treated and untreated areas (Response to Comments in ROD Appendix D PR #109A, p. 65, comment #015-9). Also see team meeting notes on fire effects monitoring to be done by Linda Wadleigh [agency fire ecologist] (PR #75).

The Sierra Club comment letter to the EIS called for consideration of *an alternative that includes action on only a few thousand acres and no new construction of roads.* Small sales proposed in all alternatives would partially address this alternative. Harvest of larger trees over 12 inches is needed to meet the purpose and need for this project (ROD Response to Comments Appendix D, pp. 64-65, comment #015-7). Dead standing trees of smaller diameters tend to fall faster than larger sized trees (EIS, p. 106).

The alternatives vary in their treatment of Black Canyon watershed; Alternative 3 treats 26 percent of the watershed, while the other action alternatives treat 75 percent (EIS, p. 164). For Canyon Creek watershed, treatment varies from 84 percent of the watershed under Alternative 2 to 43-46 percent treatment under the other alternatives (EIS, p. 164).

Effects of alternatives vary. Alternative 2 had more logging, more noise disturbance to wildlife, and possible fishery impacts. Alternative 3 avoids treatments on highly erosive soils but would not generate any slash ground cover on those soils. Alternative 5 would not leave as many snags or down woody debris for wildlife (ROD, pp. 14-17).

Finding: Alternatives are developed to address unresolved conflicts in a proposal (Council of Environmental Quality regulations for NEPA, 40 CFR 1501.2(c.)). The alternatives studied in detail meet the purpose and need for action and address the identified issues. Aspects of the alternative proposed by CBD were addressed. The Responsible Officials appropriately defined the scope of the analysis and analyzed a range of reasonable alternatives within that scope.

Contention C: Rodeo-Chediski EIS fails to take the necessary hard look, and lacks specificity to allow the public to truly analyze the impacts of the project, such as the type of logging to be used (shelterwood, clearcut), and the size of trees that will be cut, whether greater than 12 inches dbh or not.

Response: The EIS displays direct, indirect and cumulative effects analyses on the resources throughout Chapter 3 of the EIS, pp. 39-222. The EIS describes salvage logging as removing large dead trees (EIS, pp. 142-143). This agrees with FSM 2470.5 definition of salvage cutting as "Intermediate cutting made to remove trees that are dead or in imminent danger of being killed by injurious agents." The ROD and EIS spell out that dead trees over 12 inches dbh (diameter breast height) will be cut (ROD, p. 5; EIS, p. 19).

Finding: The EIS documents the necessary hard look at effects as required by 40 CFR 1502.16. Environmental impacts of the five alternatives were disclosed to form the scientific and analytical basis for comparison. Specificity of the actions proposed was adequate for analysis for the Responsible Officials to make a reasoned decision.

Contention D: Rodeo-Chediski EIS fails to consider or disclose contrary scientific opinions including Beschta along with 12 additional citations listed in appeal.

Response: A review of opposing and supportive scientific literature was done. Discussion and analysis of the relevant scientific material, including Beschta by name, are included in the EIS and in project record documents (ROD Response to Comments, p. 56, comment #014-2; EIS, pp. 13, 29, 97, 125 and 147; Literature review PR #39; PR #25, p. 8; PR #27, p. 6; PR #55, p. 6; PR #81, p. 15; and PR #84, p.15.)

Finding: Review of the scientific literature was included in the EIS effects analysis and is adequate for analyzing effects and disclosing them to the public.

Contention E: Rodeo-Chediski EIS fails to make explicit scientific references to support its environmental analysis on the benefits of the proposed action. The appellant goes on to mention the lack of scientific support for the benefits of salvage logging on soils, reducing future fire intensity and severity, wildlife, vegetation, air quality, transportation system, and economic impacts.

Response (Soils): The project record contains evidence that a vast array of scientific literature regarding the effects of salvage logging on soils was reviewed, evaluated and utilized in the analysis, as appropriate. A comprehensive literature review (PR #39) appraises and responds to 28 salvage logging literature citations. Many of these contain research and documented effects on soil. In addition, the soil and water specialist's report (PR #100, pp. 36-37) incorporates numerous additional citations regarding wildfire, logging in general, and logging in burned areas and their effects on soil. The environmental effects analysis also utilized scientific-based methodologies and models (EIS, pp. 39-42 and 46).

Finding (Soils): The scientific support for conclusions regarding the soil productivity benefits of the proposed action is provided by literature sources, methodologies, and models, along with the professional experience of the scientists who wrote the EIS.

Response (Fire): The EIS, on p. 97, provides documentation of research that does indicate that heavy accumulations of dead and down material can increase the probability of future fire events. In PR #81, p. 15, there is documentation that 80 percent of the trees that died in the first year would fall within 10 years. This same fuel loading would exist with few changes after this 10-year period. What does change, causing a greater reburn potential, is the condition of the large woody fuels. There is documentation in PR #81, p. 15, that the reburn potential in the 30- to 60-year period increases, due to large woody fuels being mostly rotten at this period in time, and large amounts of grasses and shrubs being present, causing a high resistance to control, with potential for greater soil damage than the original fire.

There is discussion in PR #84, pp. 9 and 10, concerning the benefits of leaving large logs; and in addition, in PR #84, p. 10, there is discussion on the quantities of down logs that would exceed desired levels in within 5–10 years. Discussions of the slash treatments to be done with the salvage operations and in unlogged areas to reduce risk of fire is in the EIS, pp. xiii, 112; Appendix A, pp. 283-286; and PR #81, pp. 17–20. There is acknowledgment that in the short term, salvage logging would not decrease the risk of fire ignitions and spread, but would decrease the intensity of future fires (EIS, p. 111).

There is discussion concerning fuel loadings of all diameters in PR #81, p. 11, Table 3.105. In addition, there is discussion in PR #81, p. 13, concerning the increase in fuel loading for fine, medium and large fuels, and the fuel treatments that will be implemented to reduce this risk (PR #81, p. 13).

The long-term benefits in reduction of future fire intensity, severity, and resistance to control by removing large trees and treating the slash outweigh the short-term increase in fuel loading caused by the smaller diameter material, (PR #81, p. 13; ROD, p. 9). Further discussion in PR #81 states that without logging, it would take 5–10 years to reach pre-fire conditions fuel loading.

Finding (Fire): The current levels of coarse, woody debris are adequately discussed and addressed in the project record. The effects of the fire/fuel on soil were properly analyzed. The effects of fuel loading in relation to future fire intensity and severity is properly documented. The project record supports the selected alternative and will meet the purpose and need.

Response (Wildlife): The contentions raised relative to big game are all directly discussed in the EIS and in PR #82. The big game discussions are in regard to the impacts of salvage logging versus no action alternative (EIS, pp. 138-144). The discussion contrasts recovery time and disturbance under the range of alternatives and references both referenced literature and the Arizona Game and Fish Department's 2002 unpublished report, "A Briefing of the Effects of the Rodeo-Chediski Fire on Wildlife and Wildlife Habitats." Roads are specifically addressed in the EIS, pp. 140-141, and in PR #82, pp. 2, 41, and 49-57.

Finding: (Wildlife) The EIS does not conflict with the Arizona Game and Fish Department's assessment, nor does it ignore the fact that these areas will recover over the long term. Rather, the big game discussion describes decreasing habitat recovery by choosing an action alternative. Effects of roads are described in detail in both the EIS and PR #82.

Response: (Vegetation) Direct, indirect,and cumulative effects on vegetation were disclosed in the EIS. A comparison of alternatives (Table 11, EIS, pp. 33-34) and a specialist report specific to vegetation (PR #84), authored by Douglas Beal, Forest Silviculturist, is a part of the project record. Included in the vegetation specialist report, (PR #84, pp.13-21), is a discussion on the various forest cover types, forest structural stages, snags, and old growth habitat prior to the burn, post burn and post salvage The cumulative effects section in the EIS (pp. 54-70) discusses direct, indirect, and cumulative impacts of the proposed actions on site productivity and ground cover. The analysis (EIS, pp. 78-91) under *Affected Environment - Vegetation Cover Types* discusses forest cover types, vegetative structural stages, vegetative regeneration capacity, snags, down logs, old growth, and insect and diseases that are affecting the vegetation in the analysis area. Direct, indirect, and cumulative effects of the project are discussed in detail in this section of the EIS for each alternative.

Finding (Vegetation): The EIS and Project Record adequately disclose the impact of the post-fire salvage logging operations on site productivity, ground cover, and forest vegetation.

Response: (Air Quality) The direct, indirect, and cumulative effects of dust and vehicle emissions on air quality were disclosed, though not quantified in the EIS (EIS, pp. 113-120; PR #45, pp. 5-7; PR #80, pp. 6-8). Predicted fire emissions were quantified, and mitigation measures for dust were discussed. It was concluded that "dust and emissions created during salvage logging activities are insignificant and would quickly dissipate over space and time, with no cumulative effects expected" (EIS, p. 120).

Finding: (Air Quality) The EIS and Project Record adequately disclose the impact of the post-fire salvage logging operations on air quality.

Response (Transportation): PR #32 is a complete roads analysis for the project area. Page 2, "Roads analysis is an integrated ecological, social, and economic approach to transportation planning which addresses both existing and future roads" (USFS, 1999a). This Roads Analysis follows the process outlined in the document Roads Analysis: *Informing Decisions about Managing the National Forest Transportation System."*

Finding (Transportation): A review of the "Rodeo-Chediski Salvage and Rehabilitation Roads Analysis," (PR #32) confirms that it follows Forest Service guidance as described in Report FS-643.

Response (Economics): Project-level requirements for social and economic analyses are described in Forest Service Manual (FSM 1970) and Forest Service Economic and Social Analysis Handbook (FSH 1909.17). The responsible line officer determines the scope, appropriate level, and complexity of economic and social analysis needed (1970.6). The social and economic analysis report addresses the scope of the economic analysis, which is a financial efficiency analysis using benefits and costs for resource outputs from credible economic values (PR #87, pp. 2-5). Scientific support for the economic analysis is listed in the social and economic analysis report, including the IMPLAN Model, U.S. Census Bureau data, Regional Economic Information System (REIS), and Bureau of Economic Analysis data (PR #87, p. 29).

The total cost figure used by the appellant from Table 60 in the EIS (p. 216) includes road improvement work. Road work is done by the timber sale contractor and the improvements and maintenance work on roads are a benefit to the Forest Service. Although the total cost figures are higher than sale revenues, the Benefit/Cost ratio (1.57 for Alternative 4), is positive for the Forest Service, because the B/C ratio has included the road work as a benefit to the government. For Alternative 4, the selected alternative, road improvement costs are estimated at $758,000. This road benefit is larger than the difference between total costs and total sale revenues.

Over 200 jobs would be generated through the implementation of the action alternatives, especially during the first year of implementation (EIS, p. 215). Forest recovery efforts such as emergency rehabilitation efforts have already generated approximately 250 jobs through the investment of over $10 million into the economy (EIS, p. 214). Rehabilitation work on the fire area included straw mulching done by volunteers, channel debris cleaning, placing of erosion control structures and many other activities that generated employment and helped restore the environment (PR #23).

Finding (Economics): The financial analysis is consistent with regulation and manual (FSM 1970) and handbook (FSH 1909.17) direction for project-level analysis and is not in violation of applicable laws, regulation, or policy.

Contention F: Rodeo-Chediski EIS cumulative impact analysis is inadequate.

Response: Cumulative effects of the project are outlined in the EIS and specialist reports. Discussions cover Burned Area Emergency Rehabilitation results, logging on private and state and Tribal lands, ongoing Categorical Exclusion harvest activities, and future fuel treatments that will reduce fire risk on edges of the Rodeo-Chediski burn area, and effects of fire retardant on water quality. Resource analysis of cumulative effects was done for soil, water, geology, vegetation, fire and fuels, wildlife, recreation, roads, fish and aquatic species, heritage resources and scenery. Grazing was canceled after the fire until restoration could occur. Refer to the following pages in the EIS: 49-50, 54-70, 75, 86-88, 107-108, 112 (see Table 26), 146-148, 151-153, 162, 164, 171, 178-179, 190-191, 197-198, and 202-203. Also see the EIS Appendix A and PR #109A, ROD Response to Comments Appendix D, p. 57, comment 014-5.

Finding: The cumulative effects analysis is adequate to disclose effects of the project in this EIS in accordance with 40 CFR 1508.7.