



February 27, 2017

Mr. Kevin Elliott – Forest Supervisor, Sequoia National Forest
Mr. Eric La Price – District Ranger, Western Divide RD
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Subject: Consideration of Additional New Information and Circumstances that Require Supplemental NEPA Analyses for the Frog, Rancheria and Other Projects

Messrs. Elliott, La Price, and Watson,

We are again writing to ask you to carefully consider and analyze the following additional significant new information and circumstances, not previously considered in the Frog and Rancheria Project analyses. Moreover, these issues apply equally to other projects in the range of the Pacific fisher on the Sequoia National Forest, and should be considered in those project analyses as well, including the Summit Healthy Forest Project (Summit CE) and the Joey Healthy Forest and Fuels Reduction Project.

The project's analyses must consider:

1. The additional tree mortality estimates from November of 2016, as well the expected additional mortality in 2017 and beyond;
2. The highly uncertain and unknown risks to fishers from proposed/planned logging of both live trees and snags, following the significant increase in tree mortality, as expressed by expert statements by the Conservation Biology Institute (CBI),
3. The fact that the fisher conservation strategy and habitat suitability model do not work at the project level;
4. That the mortality of so many trees makes it now impossible for the project prescriptions to still meet their desired purposes;
5. The fact that the 30,000 acre Cedar Fire changed the potential cumulative habitat effects on fishers throughout the Greenhorn Mountains;
6. The additional cumulative fisher habitat effects from the proposed Bull Run and Spear Creek (Cedar Fire) Roadside Hazard Tree Removal Projects, as well as the Summit Healthy Forest Project (Summit CE).

The Forest Service must prepare supplemental NEPA analyses to evaluate “significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” 40 C.F.R. § 1502.9(c)(1)(ii). The Forest Service has an ongoing duty to take a “hard look” at any significant new information and circumstances, in a timely manner, to

determine whether its projects, individually or cumulatively, could result in significant adverse effects on the Pacific fisher or other species. See *Friends of the Clearwater v. Dombek*, 222 F.3d 552, 559 (9th Cir. 2000) (“[T]he Forest Service’s failure to evaluate in a timely manner the need to supplement the original EIS in light of ... new information violate[s] NEPA.”).¹

An Environmental Impact Statement (EIS) “*must* be prepared if substantial questions are raised as to whether a project ... *may* cause significant degradation of some environmental factor.” *Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1149 (9th Cir.1998) (emphasis in original); see also *id.* at 1150 (noting that a plaintiff need not show that “significant effects *will in fact occur*,” but rather must show that there are “substantial questions whether a project may have a significant effect”) (emphasis added). A supplemental EIS should be prepared if: (1) “there remains ‘major Federal actio[n]’ to occur,” and (2) “if the new information is sufficient to show that the remaining action will ‘affec[t] the quality of the human environment’ in a significant manner or to a significant extent not already considered.” *Marsh v. Oregon Nat. Res. Council*, 490 U.S. 360, 374 (1989). The manner and extent of the effects discussed herein have not been considered. Moreover, major Federal actions remain that will occur through the implementation of the Frog, Rancheria and other projects.

1. The additional tree mortality estimates from November of 2016, as well the expected additional mortality in 2017 and beyond, must be considered and analyzed.

As we have stated in previous comments, the massive die-off of trees has already had an effect on habitat for Pacific fishers, California spotted owls, and northern goshawks in these project areas by naturally reducing canopy cover. Such a dramatic reduction in canopy cover and species habitats constitutes a significant new circumstance, which must be considered in the projects’ NEPA analyses. But since the Forest Service’s May 2016 survey, which found that 66 million trees had died in the Southern Sierra Nevada region, in November 2016 the Forest Service reported that it has identified an additional 36 million dead trees across California, the majority of which are located in ten counties in the southern and central Sierra Nevada region. See <http://tinyurl.com/ztvqts6> (also attached as Exhibit A). Moreover, the report states that “Forest Service scientists expect to see continued elevated levels of tree mortality during 2017 in dense forest stands, stands impacted by root diseases or other stress agents and in areas with higher levels of bark beetle activity.” *Id.*

Not only must the Forest Service consider and analyze the additional mortality reported in November of 2016, it must also analyze the effects from the continued elevated levels of tree mortality, expected by their own scientists to occur during 2017 in their supplemental analyses for the Frog, Rancheria, and other affected projects.

¹ An agency cannot rest on the conclusions made by an EIS or EA but instead maintains a continuing obligation to take a “hard look at the environmental effects of its planned action, even after a proposal has received initial approval.” *Marsh v. Oregon Nat. Res. Council*, 490 U.S. 360, 374 (1989). That continuing duty further requires a federal agency to gather and evaluate new information relevant to the environmental impact of its actions and then “make a reasoned determination whether it is of such significance as to require implementation of formal NEPA filing procedures.” *Warm Springs Dam Task Force v. Gribble*, 621 F.2d 1017, 1023, 1024 (9th Cir.1980).

2. The highly uncertain and unknown risks to fishers from proposed/planned logging of both live trees and snags, following the significant increase in tree mortality, as expressed by expert statements by the Conservation Biology Institute (CBI), have not been considered or analyzed.

A recent attempt at determining the effects from tree mortality on the continued suitability of Pacific fisher habitat by the Forest Service's contractor CBI found that "92.5% (49/53) of suitable hexagons have become unsuitable." See Exhibit B, p. 5. CBI, however, cautioned that "data limitations make the **draft results highly uncertain.**" Exhibit C (bold in original).² CBI goes on to explain that these results are based on calculations that include updates from only one of two datasets, whereas the other sets of "data have not yet been updated (expected spring 2017)." *Id.* CBI's statement also cautions that "**how fishers are actually responding to these recent changes in forest structure is currently unknown, as field data from fishers using such a post-mortality landscape are as of yet unavailable.**" *Id.* (bold in original). CBI concludes that "fisher field data collected over the next several years will reduce uncertainties about how fishers are using the post-mortality landscape." *Id.*

To determine whether a proposed project will have "significant" impacts on the environment, an agency must evaluate "the degree to which the effects on the quality of the human environment are likely to be highly controversial," and "the degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks." 40 C.F.R. §§ 1508.27(b)(4), (b)(5). The Forest Service therefore must consider the extent to which the Frog and Rancheria and other projects are affecting wildlife resources and whether they are highly controversial or involve unknown risks, given the uncertainty and unknown risk to the fisher from the tree mortality event. See *Id.* A proposal is highly controversial when "substantial questions are raised as to whether a project . . . may cause significant degradation of some human environmental factor," *Nw. Env'tl. Def. Ctr. v. Bonneville Power Admin.*, 117 F.3d 1520, 1536 (9th Cir. 1997) (internal quotation marks omitted), or there is a "substantial dispute [about] the size, nature, or effect of the major Federal action..." *Blue Mts. Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998) (alteration in original) (internal quotation marks omitted).

Given the recent statements from CBI that the effects to fisher from the tree mortality event are unknown, substantial questions arise concerning the likelihood and significance of adverse environmental effects from continued implementation of the Frog and Rancheria Projects in addition to these unknown effects. Moreover, CBI's statements also raise substantial questions, given the highly uncertain results in determining the continued suitability of Pacific fisher habitat in each project area. But if the results are in fact even close to accurate, the loss of 92.5% of fisher habitat suitability raises substantial questions, and it is reasonable to conclude that added effects from the Frog, Rancheria and other projects would result in significant adverse effects to the fisher.

² CBI states that the mixture of only partially updated variables in the fisher habitat model "may be creating novel and unrealistic combinations of forest structure attributes and not accurately reflecting actual fisher habitat conditions." Exhibit C. In other words, and according to Wayne Spencer of CBI, the use of only partial data in the model to determine current fisher habitat suitability "fails miserably." See Exhibit D & F (transcript from recent presentation by Wayne Spencer of CBI to the SSN Fisher Working Group and Video-Audio Webinar file).

Because field data from fishers using the post-mortality landscape are as of yet unavailable, and because fisher field data collected over the next several years will reduce uncertainties about how fishers are using the post-mortality landscape, the Forest Service must first collect this data as part of its preparation of Environmental Impact Statements (EISs) before proceeding with implementation of the Frog and Rancheria Projects.

Preparation of an EIS is mandated where uncertainty may be resolved by further collection of data, or where the collection of such data may prevent speculation on potential effects. The purpose of an EIS is to obviate the need for speculation by insuring that available data are gathered and analyzed prior to the implementation of the proposed action.

Nat'l Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722, 731 (9th Cir. 2001) (internal citations and quotations omitted); see *Blue Mountain Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1213-14 (9th Cir. 1998) (the lack of supporting data and cursory treatment of environmental effects in an EA does not support refusal to produce an EIS). “[L]ack of knowledge does not excuse the preparation of an EIS; rather it requires the [agency] to do the necessary work to obtain it.” *Nat'l Parks*, 241 F.3d at 733. “[G]eneral statements about ‘possible’ effects and ‘some risk’ do not constitute a ‘hard look’ absent a justification regarding why more definitive information could not be provided.” *Neighbors of Cuddy Mountain v. United States Forest Service*, 137 F.3d 1372, 1380 (9th Cir. 1998).

The fact that it is currently unknown how fishers are actually responding to recent changes in forest structure from tree mortality, requires the Forest Service to take a “hard look” at the overall environmental consequences under NEPA. *Friends of the Clearwater*, 222 F.3d at 559.

3. The fact that the fisher conservation strategy and habitat suitability model do not work at the project level has not been considered or analyzed.

The Forest Service should not rely on or apply results from the new CBI fisher habitat suitability analysis at project level, not just because the “draft results are highly uncertain; and we do not advise applying them,” (Exhibit C), but because they do not work at the project level. As fisher expert Wayne Spencer of CBI recently explained to the Southern Sierra Nevada Fisher Working Group:

I wanted to kind of give an overview of where we are in the process and then concentrate on, the two big things that we’re struggling with now in 2017.

So in 2015 we finished the conservation assessment. Last year about this time we finished the [fisher] conservation strategy, which was really... an overall all land conservation strategy. It is not a forest service project strategy, and it really is focused on the whole population, landscape level. It is all about recognizing the dynamics of this landscape for fires, and mortality, and forest restoration projects.

So that fisher habitat is changing all the time. It's what happens at that population level in the core and linkage areas that is real critical. But now in 2017, people are trying to implement aspects of the strategy, and one of the things that's become clear is that there are great difficulties with trying to translate this sort of landscape level population level analysis down to the (garbled), analyzing specific forest projects like a thinning project, or a restoration project, or a logging project.

Exhibits D1 & E (Transcript of relevant portions of the presentation by Wayne Spencer of CBI, describing the fisher conservation strategy and habitat model and webinar audio-video file).³ These statements are also supported by the official meeting notes, obtained from the organizer and presented in Exhibit D2 (see attached):

- Project level obstacles to overcome-2017 update
 - Difficult to translate this data for implementation on the ground/ project work....
 - Don't have regularly updated, vegetation data- need to fix these issues (GNN and e-veg are difficult to use)

Id., p. 2. Moreover, the notes confirm the uncertainties of effects to fishers from tree mortality:

- ...Tree mortality has changed things -
 - Old recommendations don't fit any more
 - This provides difficulties and opportunities
 - Animals are still on the landscape
 - How can they survive
 - What factors do they need now that the landscape has changed
 - Are they there out of habit (site fidelity)?
 - Finer ways to judge stressors and impacts

Id., p. 3. In its supplemental review of the Frog, Rancheria and other projects, the Forest Service must acknowledge that CBI's recent reassessment of Pacific fisher habitat suitability cannot inform environmental analyses, because it does not provide the necessary data at the project level. Moreover, the analyses must acknowledge the uncertainty of effects from tree mortality on fishers and the uncertainty the continued implementation of projects have on fisher habitat.

4. That the mortality of so many trees makes it now impossible for the project prescriptions to still meet their desired purposes, which has not been considered or analyzed.

Given the high levels of mortality, the Forest Service must consider whether the prescriptions in the Frog and Rancheria Projects can still function to meet the desired purposes, as expressed in each Environmental Assessment (EA), Decision Notice, and their supporting vegetation and silviculture specialist reports. The on-the-ground conditions are now so drastically different from conditions when stand exam and other data were gathered, that the project prescription likely can no longer achieve what they were designed to do.

³ Audio-video files of relevant portions of Wayne Spencer's presentation are included as Exhibits E and F.

The Forest Service must do supplemental silvicultural assessments based on new stand exams, similar to what it did in 2011 for the Frog Project to update their original 1998 and 2000 analyses. In 2012, the Forest Service agreed with this need and must do so again:

The purpose of this report is to document the silvicultural review of changed circumstances or new information and determine whether the existing information and silvicultural prescriptions remain valid for the Frog Project in light of that new information... A fresh stand exam was done in 2010. Information from these plots was entered into the most current version of the Forest Vegetation Simulator (FVS) to model existing stand conditions, and project growth, mortality and fire effects into the future.

Frog Project Silvicultural Review, p. 1 (attached as Exhibit G).

Stand exams are performed to measure the amount, type, and condition of vegetation, ground cover, and fuel. These types of exams allow us to determine conditions on the ground. Knowing the ground conditions such as stand density, vegetation types, and amount of fuels gives a solid base to begin evaluating whether the existing prescription will achieve the desired result. Stand exams were conducted in 2010, using the common stand exam format. There were 174 plots. This exam was done in the project units to establish whether changes had occurred in the project area that would invalidate the original decision.

Id., p. 5. At the time, the Forest Service concluded that no changes to prescriptions were required because average canopy cover and basal area in 2010 were similar to what the Forest Service found in 1999. Small decreases were “due to fields of planted trees being included in the 2010 data collection and to some mortality from competition for resources and bark beetle attacks.” *Id.*

But now, in 2017, after the effects of 3 years of drought-related mortality, the current and projected average canopy cover and basal area have decreased significantly, and prescriptions likely will not achieve the desired results.

Project design features specific to retaining fisher habitat elements include retention of 180 square feet basal area per acre (correlates to 45% canopy cover). The actual retention is estimated to average over 200 square feet basal area. At least 40 trees per acre less than 5 inches dbh will be retained to provide low cover for fishers and their prey. Hardwoods will be retained. A minimum of 40% canopy cover will be retained.

Id. The large reductions in current and projected future canopy cover and the fact that basal area is expressed as live trees make it difficult to imagine that the current prescriptions can still meet the design features to retain fisher habitat.

The assessment of impacts of logging for certain stands in the Frog, Rancheria, and other projects estimated that logging would reduce canopy cover from levels around 60-90% down to

50-60%, or 40-50%, concluding that remaining canopy cover would still be sufficient to maintain moderate quality fisher denning/resting habitat. However, the recent tree mortality has likely already reduced live tree canopy cover from 60-90%, due to the pulse of snag recruitment, down to 50-60%, or 40-50%, which means that the planned logging of live trees could reduce canopy cover to levels well below 40-50%—levels needed for suitable denning/resting habitat (see, e.g., Purcell et al. 2009).

But new assessments cannot only be based on updated stand exam data only in the project area. They must also consider and analyze mortality expected through, at least, 2017 and based on updated stand exam data throughout the entirety of the fisher habitat inside and outside the project area in order to adequately determine the cumulative impacts of the project in combination with other projects. This, in turn, must inform the basis of any new prescriptions, if any are still feasible.

For the Rancheria Project, “Stand exams of 177 plots were completed in 2011 and used to model proposed restoration treatments.” Rancheria Vegetation and Silviculture Report, p. 25 (Exhibit H). The analysis of conditions and silvicultural prescriptions was based on the assumption that

The collected inventory plot data (Common Stand Exam (CSE)) statistically represent the current “average” stand condition by vegetative type in the Rancheria Project Area.

Id., p. 7. The 2011 assumptions are now obsolete and can no longer be used to support the analysis, and therefore can no longer justify the current prescriptions in the Rancheria project area.

In Rancheria, the analysis of direct and indirect effects of the selected action (Alternative 2) are presented in Table 16 for Sierran Mixed Conifer (SMC), which is what fishers use:

Table 16: Alternative 2, SMC strata forest vegetation metrics as modeled by FVS using stand examination inventories. These outputs were simulated absent any natural disturbance, such as wildland fire. Pre-treatment canopy cover is at 74%, treatment reduces canopy to 57%, as modeled by FVS. The prescribed fire entries further reduce canopy between 2013 and 2023.

Year	Trees per acre	SDI average	SDI percentage of 550 maximum (%)	Basal area per acre	Quadratic mean diameter (QMD)	Average canopy cover (%)
2013	425	353	64	184	8.8	73
2023	229	230	41	126	10.0	47
2033	223	256	46	144	10.8	53
2043	217	281	51	163	11.7	58
2053	209	304	55	182	12.6	61

Id., p. 31. But given tree mortality in the Rancheria area, these assumptions of average stand conditions and current and future baselines for canopy cover must be changed based on new stand exams, as well as forecasted mortality. In order to maintain fisher habitat at minimum levels, it is therefore likely that prescriptions must be changed or abandoned.

5. The fact that the 30,000 acre Cedar Fire changed the potential cumulative habitat effects for fishers throughout the Greenhorn Mountains must be considered and analyzed.

It is unclear how the 30,000 acre Cedar Fire affected fisher habitat, which burned north from the Greenhorn summit to an area not far south of the Frog Project area. *See* Exhibit I (Map of burn area). While fishers will continue to use burned areas for foraging (Hanson 2013, Hanson 2015), it is likely that much of the Cedar Fire no longer functions as resting and denning habitat, which means that logging of remaining resting/denning habitat in the broader area—including the Rancheria and Frog areas—may now have more serious consequences for fishers than before.

Because the Cedar Fire, in combination with the Frog, Rancheria, and other actions cumulatively changed the fisher’s habitat suitability, this new circumstance must be considered and analyzed in the supplemental NEPA analyses for Frog, Rancheria, and other projects.

6. The additional cumulative fisher habitat effects from the proposed Bull Run and Spear Creek (Cedar Fire) Roadside Hazard Tree Removal Projects, as well as the Summit Healthy Forest Project (Summit CE) must be considered and analyzed.

The Forest Service has authorized, proposed, or is planning several projects directly between the Frog and Rancheria Projects, which will cumulatively affect the Pacific fisher. The effects from these three projects, in combination with the proposed actions, have not been considered or analyzed in the Frog or Rancheria EAs.

On August 2, 2016, District Ranger Al Watson authorized the Summit Healthy Forest Project (aka, Summit CE), which would log in Pacific fisher habitat. The Decision Memorandum for the Summit CE project is attached as Exhibit J.

After the Cedar Fire, in late 2016, the Forest Service initially scoped a proposal for two roadside hazard tree projects called the Bull Run Roadside Hazard Tree Mitigation Project (at 2,000 acres) and the adjacent Spear Creek Roadside Hazard Tree Project (at 1,500 acres), located in the Giant Sequoia National Monument. *See* Exhibit K.

On February 14, 2017, the Forest Service enlarged the size of the Bull Run Roadside Hazard Tree Mitigation Project to include many more roads. The project proposal is now roughly 3,350 (up from 2,000 acres). Exhibit L.

On February 15, 2017, the Forest Service confirmed that it was still contemplating doing the Spear Creek roadside hazard project (*see* Exhibit M), which is described in a map titled “Spear Creek Hazard Tree Project.” Exhibit N.

These projects, which are adjacent and/or overlapping from south to north, would all affect habitat for the Pacific fisher, and they are current or are reasonably foreseeable as concrete actions. The cumulative environmental effects from these projects must therefore be considered and analyzed in the Frog and Rancheria NEPA analyses.

For Sequoia ForestKeeper, the John Muir Project or Earth Island Institute, and the Kern-Kaweah Chapter of the Sierra Club,

A handwritten signature in blue ink, appearing to read 'René Voss', with a stylized flourish at the end.

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