8 June 2015

Dean Gould, Forest Supervisor
Sierra National Forest
RE: French fire post-fire logging project

Dear Mr. Gould,

Thank you very much for the opportunity to submit scoping comments on the French Fire Recovery and Reforestation project on the Sierra National Forest. I am a wildlife biologist and principal scientist with the Wild Nature Institute, a non-profit scientific research and advocacy organization whose mission is to study imperiled species and protect habitat. I have conducted field research of the habitat needs and foraging ecology of the Black-backed Woodpecker in the Lassen National Forest (in the Sugarloaf and Peterson fire areas), and I am the principal author of the *Conservation Strategy for the Black-backed Woodpecker in California*, Bond et al. (2012), which the U.S. Forest Service commissioned, funded, and co-authored. I am submitting these comments on behalf of the Center for Biological Diversity and John Muir Project.

Adverse Impacts to Birds in General

Only fire that burns severely creates significant enough ecological change to support a unique composition of species – not the mild understory fires. Many species of vertebrates, invertebrates, and plants have evolved to take advantage of severely burned forest habitat (Hutto 2006, 2008). Using birds as an example, the following studies have documented the ecological value of severely burned forests for a number of species in different regions of the western U.S.:

- Raphael et al. (1987) monitored breeding birds in three periods after the 1960 Donner Fire in the Eastern Sierra Nevada, allowing for long-term effects of severe fire to be examined (fire severity was not specifically quantified but it was noted that the burned plot contained high-severity burn). The authors found that total density of birds was nearly the same on the burned and unburned plots but species richness increased on the burned plot. Thirty-eight species bred on the burned plot while 32 bred on the unburned plot (25 bred on both plots). More breeding species were unique to the burned plot (13) than to the unburned plot (7).

- Smucker et al. (2005) examined effects of fire of different severities and ages on songbirds in point-count transects that had been set up 5 years prior as a part of the Northern Region Landbird Monitoring Program in forests in Montana. The authors found that of the 40 species with adequate sample size to include in statistical analyses, 4 increased significantly in relative abundance after fire and 5 decreased significantly after fire, independent of fire severity. However, placing point count stations into categories that correspond with whether they burned at low, moderate, or high severity, the authors discovered significant changes in relative abundance from before to after fire at one or

more severities for an additional 9 species. The data revealed that 12 species were significantly more abundant and 7 species were significantly less abundant after fire at one or more severities. An additional 4 species (including Black-backed Woodpecker, House Wren, Western Wood Pewee, and Three-toed Woodpecker) were detected more frequently after fire, although sample sizes were too small to include in the statistical analysis. Thus, a total of 16 species responded positively to at least one level of fire severity, underscoring the importance of accounting for fire severity. With respect to time since fire, for both increasers and decreasers the magnitude of change in relative abundance between the first two years after fire was greater at points that burned at high or moderate severity than at points that were unburned or burned at low intensity. This suggests that high and moderate severity fire (in contrast to low-severity fire) creates a unique and important habitat type for many bird species.

- Kotliar et al. (2007) published a similar study comparing bird densities before and after fire and in varying burn severities in New Mexico. Western Bluebirds were uncommon in all but the highest burn-severity level and Hairy Woodpeckers and House Wrens increased with increasing burn severity. The authors were able to analyze pre- and post-fire density patterns for 15 species, and 4 of the species showed significant burn-severity effects. Mourning Doves had higher densities across all burn severities, American Robins increased significantly after fire in high-severity patches and in comparison with pre-fire densities, and post-fire densities of Broad-tailed Hummingbirds and Western Bluebirds increased with increasing burn severity and were significantly greater in high-severity patches compared to unburned. Furthermore, the pre- and post-fire community was similar in all except high-severity areas. Like results from Smucker et al. (2005) in Montana, this means that forests after high-severity fire support a unique community of bird species.

Numerous studies on post-high-severity fire salvage logging have documented adverse effects on the Black-backed Woodpecker and other cavity-nesting bird species (e.g., Saab and Dudley 1998, Hutto and Gallo 2006, Hutto 2006, Hanson and North 2008, Cahall and Hayes 2009, Saab et al. 2007, 2009, 2011). Saab and Dudley (1998) followed 17 Black-backed Woodpecker nests from 1994 to 1996 in forests of western Idaho that burned in 1992 and 1994. Nest densities were more than quadrupled in unlogged stands versus both “standard salvage” and “wildlife salvage” treatments, despite significant snag retention in the treatments. Additional nest monitoring was conducted over subsequent years in the same study site. Saab et al. (2007) reported that nest densities were more than 5 times lower in partially logged burns. Hutto and Gallo (2006) examined nest densities of Black-backed Woodpecker in burned mixed-conifer forest in Montana and documented 10 nests per 148 ha in unlogged burned stands and 0 nests per 275 ha in salvage-logged stands. In the eastern Oregon Cascades, Cahall and Hayes (2009) found that partial salvage logging did not mitigate adverse effects to Black-backed Woodpeckers. In the

Sierra Nevada, Black-backed Woodpeckers preferentially foraged in severely burned stands with larger snags and higher snag densities (Hanson and North 2008).

The Project Will Degrade Black-backed Woodpecker Habitat and Threaten Black-backed Woodpecker Populations, and the Analysis Fails to Incorporate the Best Available Science

The Project, according to the EA and maps, would eliminate and fragment large areas of potential burned Black-backed Woodpecker habitat in the fire area. It is important to note that this is *potential* habitat, as these woodpeckers do not always occur within all parts of a fire area, and the impact of the proposed project on these woodpeckers may be greater than just the simple number of acres affected by logging if the areas slated for logging occur where woodpeckers occur at higher densities. In fact, scientific experts have noted that the high-quality Black-backed Woodpecker habitat – stands with high basal area of larger snags but also with high densities of smaller trees – are often the very same stands targeted for post-fire salvage logging (see, e.g., Dr. Rodney Siegel's comments on the California Department of Fish and Game's status review of the petition to list the Black-backed Woodpecker under the California Endangered Species Act).

In 2012, The Institute for Bird Populations and California Partners in Flight, commissioned by the U.S. Forest Service, published a Conservation Strategy for the Black-backed Woodpecker in California. Among the management recommendations was the following:

Recommendation 1.5. Avoid harvesting fire-killed forest stands during the nesting season (generally May 1 through July 31). This management recommendation will protect dozens of other nesting bird species associated with burned forests in addition to the Black-backed Woodpecker. After about 8 years postfire, such stands are unlikely to contain many nesting Black-backed Woodpeckers, but many other bird species will nevertheless still be nesting in snags during this period.

The Project makes no effort to refrain from hazard tree removal from May 1 through July 31 anywhere in the project area in 2015 or 2016. The failure to follow the Black-backed Woodpecker Conservation Strategy with regard to logging in nesting season is of particular concern because it creates an ecological trap scenario (post-fire habitat attracts breeding Black-backed Woodpeckers, whose chicks could be subject to mortality from post-fire logging in nesting season). This effect compounds adverse impacts of post-fire logging on already imperiled Black-backed Woodpecker populations. Post-fire logging of occupied nest sites during nesting season results in the direct killing of chicks that have not yet fledged (chicks that are not mature enough yet to fly away). This is a serious adverse impact that would unnecessarily create significant risks for the viability of Black-backed Woodpecker populations in the Sierra Nevada.

The Forest Service commissioned me other Black-backed Woodpecker experts to write the Conservation Strategy for Black-backed Woodpecker populations in California. This Strategy includes a set of recommended conservation measures to avoid a serious risk to the viability of Black-backed Woodpecker populations. The EA not only does not incorporate our conservation recommendations, but also does not analyze the adverse impacts, and cumulative effects, to Black-backed Woodpecker populations that will result from the failure to follow the conservation recommendations—nor can these effects be effectively analyzed in a mere EA. There is simply no sound basis for a Finding of No Significant Impact by the Forest Service here.

New scientific evidence suggests that there may be a genetic distinction between the eastern Oregon Cascades population of the Black-backed Woodpecker and the California population (Siegel et al. 2013). While the degree of this distinction is still being analyzed, this new information indicates that the combination of the current post-fire logging projects presents potentially serious unknown and uncertain risks by severely reducing and fragmenting suitable habitat in a population that may be even smaller and more isolated than previously assumed. The fact that there may be a genetic distinction between Oregon and California (Siegel et al. 2013) indicates that the discontinuities and gaps in habitat between the two populations are already significant.

Based on the foregoing, there is no sound basis for any finding of no significant impact.

Conclusion with Regard to Black-backed Woodpeckers

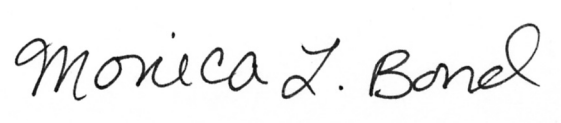
The Black-backed Woodpecker is under intensive scrutiny, and scientists and conservationists have expressed grave concerns about the future of these birds. The Oregon/California population of the Black-backed Woodpecker is being considered for listing under the federal ESA. The onus is on the Forest Service to demonstrate that this logging project will not reduce important habitat and adversely affect the local and regional populations of these species to the point where listing becomes necessary.

Science-based recommendations for management of Black-backed Woodpecker habitat (Bond et al. 2012) were not incorporated into design of the Project. This lack of regard for the needs of wildlife when planning where and when to conduct salvage logging will result in adverse short-term and long-term effects on the many species of wildlife that are associated with the fire-killed trees within severely burned stands of the fire. There has been a large body of scientific literature produced over the past decade on the impacts of fire and insects on native wildlife species and habitats, as well as on fire-risk reduction and post-fire salvage logging that directly refutes the need for post-fire salvage logging. Disturbances such as high-severity fire and insect outbreaks are natural and important elements of healthy forests in the western U.S. and Canada and post-fire salvage logging adversely impacts soils, vegetation, and wildlife of the Complex Early Seral Forest. Therefore, I recommend that logging not occur in Black-backed Woodpecker

nesting season, and that tree felling occur outside of nesting season and be limited to roads truly necessary for public use, and limited to dead trees that could actually hit the road if they fell. Moreover, I recommend that an EIS be prepared to meaningfully analyze, at a minimum, effects and cumulative effects from the large amount of removal of Black-backed Woodpecker habitat proposed in this project, and the impacts and cumulative effects of logging in nesting season, contrary to the recommendations of the Conservation Strategy.

Thank you again for the opportunity to provide these comments for this project.

Sincerely,



Monica L. Bond

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