



Sierra Nevada

Forest Protection Campaign



May 31, 2006

Carol Chandler, Acting District Ranger
USDA Forest Service
Hat Creek Ranger District
P.O. Box 220
Fall River Mills, CA 96028

Re: Comments on North 49 DEIS

Dear Ms. Chandler:

These comments on the North 49 draft environmental impact statement (DEIS) are submitted on behalf of the Sierra Nevada Forest Protection Campaign and the Sierra Club. We incorporate by reference the comments submitted on this project earlier by Bond (2004), Kucera (2004), and Britting (2004), together with our earlier comments on this project and our administrative appeal dated October 4, 2004.

In addition to considering the earlier proposed action (Alternative 1) and no action (Alternative 2), the DEIS includes a new preferred alternative (Alternative 3). Compared to the earlier proposed action, Alternative 3 would reduce the project's adverse impacts to old forest habitat and wildlife by applying a lower intensity thinning prescription to 4,946 acres of proposed DFPZs and by reducing the acreage of group selection logging. Although this is an important step in the right direction, we continue to have significant concerns about the project's environmental impacts. The preferred alternative would involve 5,621 acres of "standard thinning," which will degrade habitat for old forest wildlife. In addition, even within the 4,946 acres of modified thinning, trees up to 30" diameter can be logged, which will also degrade habitat. Finally, the remaining 686 acres of group selection will also be rendered unsuitable for old forest wildlife. We therefore urge the Forest Service to modify the proposed action to reduce the logging diameter limit, increase canopy cover retention in the "standard thinning" prescription, and reduce the adverse impacts of group selection logging.

The North 49 project implements the 2004 Sierra Nevada Framework ROD (USDA Forest Service 2004a), and tiers to the accompanying FSEIS (USDA Forest Service 2004b). As demonstrated in our appeal of the 2004 ROD and FSEIS (SNFPC et al. 2004), both the 2004 plan and the FSEIS fail to comply with the National Forest Management Act, the National Environmental Policy Act, and other environmental laws. A lawsuit challenging the 2004 Framework is currently pending in federal court.

Therefore, for the programmatic reasons set forth in our appeal of the 2004 ROD and FSEIS,¹ the North 49 project is also contrary to law.

The DEIS fails to include sufficient information and analysis to adequately disclose the project's likely environmental impacts and to allow a reasoned choice about whether or not to implement the proposed action or one of the alternatives. We request that the following information and analysis be included in a revised DEIS, and that the revised EIS be circulated for additional public comment.

I. Basic Information about the Project

The EIS should provide a clear and detailed description of the project, including the nature, intensity, and extent of planned logging by unit.

- The 2004 Framework requires that projects must retain 30 percent of existing basal area, “generally comprised of the largest trees.” (USDA Forest Service 2004b, p. 68). The EIS should disclose, for each unit, how this basal area standard translates into a maximum diameter limit of trees that will be removed. The EIS should provide the underlying data and modeling assumptions and methodology that supports the diameter limit. In addition, the Forest Service should provide information on the number of medium and large (20” dbh or greater) trees that will be retained within the treated units, the number of such trees that will be logged, and the size of those trees. Although the DEIS (p. 51) asserts that the number of trees logged greater than 20” diameter will “generally” be less than 4 per acre, it fails to disclose the underlying data or methodology used to make this estimate. In addition, by only providing an average, the DEIS fails to disclose the number of trees greater than 20” diameter per unit that will be logged and that will remain. This information is important to an adequate assessment of the project's likely impacts, including impacts to the California spotted owl and other old forest wildlife.
- The Forest Service should identify the acreage and type of logging by land allocation, including (where applicable) old forest emphasis area, threat zone of the wildland urban intermix (“WUI”), defense zone of the WUI, and owl home range core areas (“HRCAs”). The EIS should also disclose and analyze the extent to which the project will log within other relevant land designations, such as areas of concern (“AOCs”) for the California spotted owl as identified by Verner et al. (1992) and habitat management areas for forest carnivores in the Lassen LRMP. Although the DEIS discusses the owl AOC (DEIS, p. 126), we were unable to find information about other relevant designations, including the amount and impacts of planned logging within the WUI, OFEAs, and the forest carnivore network. Britting's (2004) earlier analysis of the North 49 project indicated substantial logging within these ecologically significant areas, and it is important that this information be analyzed and disclosed in the EIS to allow the

¹ A copy of our appeal of the 2004 ROD was attached to our earlier appeal of the North 49 project and is hereby incorporated into these comments by reference. Please contact us if you need an additional copy.

public to assess the project's impacts. The EIS should also include maps that overlay the project boundaries with these land allocations and other ecologically significant land designations.

- The information in the DEIS about snags within the project area is confusing and contradictory. The DEIS states that stands on average contain “up to 3 snags per acre greater than 16 inches dbh” (DEIS, p. 49), but elsewhere states that “snag densities are estimated to be low to moderate (0-3 snags/acre > 16 inches dbh)” (DEIS, p. 112). Please clarify this information, being as specific as possible with respect to stand density in different stands or parts of the project area, and provide the underlying data and methodology that support your estimates.
- The Forest Service should disclose the acreage and location of old growth stands 1 acre or larger that will be logged. Research indicates that these small inclusions of habitat are important for the California spotted owl (Blakesley 2003; Moen and Gutierrez 1997) and other species. “Pacific fishers, American martens, and California spotted owls use small aggregates of large trees for denning, resting, and nesting sites,” even within larger stands that do not constitute old growth. (USDA Forest Service 2001a, Volume 2, Chapter 3, part 3.2, p. 131). Both the U.S. Fish and Wildlife Service and the Forest Service's Washington Office have expressed concerns about the elimination of protection for these stands under the 2004 ROD. (USDI Fish and Wildlife Service 2003, pp. 4-5; Gladen 2003, pp. 10-11). Identifying and protecting these small stands is particularly important given the fact that higher quality old forest is relatively scarce in the project area. (DEIS, p. 42).

II. California Spotted Owl

There is substantial cause for concern regarding the status of the California spotted owl, particularly in the northern Sierra Nevada where the Lassen demographic study strongly suggests a declining population trend. Blakesley and Noon (2003) noted that four measurements of population trends (represented by λ , the finite rate of population change) for California spotted owls in the Lassen study area from 1990-2001 showed declines over time: projection matrix estimates (λ_{PM}); estimates of λ_T from a meta-analysis; numbers of territorial owls in 68 territories surveyed consistently over time; and a model of occupancy as a function of year and forest type. No analyses showed increasing trends. Similarly, a recent report summarizing the Lassen demographic study stated the following “key finding”:

Several lines of evidence suggest[] the spotted owl population in the Lassen study area declined from 1990-2004. The number of sites occupied by territorial owls declined, two estimates of population change (λ) were < 1 , and models of site occupancy in relation to habitat included a declining trend over time. There was no evidence that the spotted owl population on the Lassen study area increased from 1990-2004. (Blakesley et al. 2005, p. 13).

In summarizing this data, Dr. Blakesley has emphasized what she characterized as an “alarming decline in the number of owls” within the Lassen demographic area. (Blakesley 2005b).²

As described by owl biologist Monica Bond, the owl appears to be faring poorly within the North 49 project area. (Bond 2004, p. 2). The DEIS acknowledges that “[k]nown reproductive success for spotted owls is low in all of the territories.” (DEIS, p. 120). According to Bond, the low levels of owl occupancy and reproduction in the project area “indicates that the population is clearly vulnerable.” (Bond 2004, p. 2). Moreover, the fact that much of the project area overlaps with AOC 1, an area “characterized by habitat fragmentation that decreases the density of owl pairs, makes successful dispersal more difficult, and reduces the likelihood of quick replacement of owls in vacated habitat” (Verner et al. 1992, p. 45), implies that “the owl population in this area is particularly vulnerable to additional habitat loss and fragmentation that will result if the North 49 project is implemented.” (Bond 2004, p. 4). According to Bond, “[t]he habitat loss that will occur if the project is implemented could therefore have adverse impacts outside the project area, potentially isolating owl populations to the north and south and increasing the possibility of local extirpation.” (*Ibid.*)

There is strong evidence that logging pursuant to the 2004 ROD, particularly logging of medium and large trees, reduction in canopy cover, removal of large snags and down wood, and logging within owl HRCAs, owl home ranges, and areas of concern, will degrade owl nesting and foraging habitat and threaten the owl’s viability. (SNFPC *et al.* 2004, pp. 14-20). Based on her review of the proposed action (Alternative 1), Bond concluded that “the North 49 project is likely to threaten the distribution and viability of the California spotted owl within the project area and beyond, contributing to the present trend towards federal listing.” (Bond 2004, p. 4). Because the DEIS lacks important information about the impacts of Alternative 3 on owl home ranges and HRCAs, it is not possible to assess carefully the extent to which Alternative 3 may reduce these impacts on the owl.

Given the risks to the owl of implementing the 2004 ROD and the QLG pilot project, it is essential that the Forest Service take a detailed and careful look at the likely impacts on the owl and its habitat of implementing the North 49 project. An adequate analysis should address, at a minimum, the following issues. (*See* SNFPC *et al.* 2004, pp. 9-28, 77-80).

- The EIS should frankly disclose the owl’s status in the northern Sierra Nevada and within the project area, as discussed above.
- The EIS should analyze the project’s impacts to owl habitat at multiple scales, including HRCAs and home ranges. The EIS indicates that, under Alternative 1, a large percentage of HRCAs will be rendered unsuitable or degraded as owl

² The recent meta-analysis and Fish and Wildlife Service finding are not inconsistent with Blakesley’s conclusion, since the new information suggests “that the spotted owls in the [Lassen] study area may have been declining” and that there is a high probability that the owl’s population will substantially decline in the Lassen study area in the next seven years. 71 Fed. Reg. 29886, 29893 (May 24, 2006).

habitat within the project area. (DEIS, p. 132). However, it fails to provide similar information for Alternative 3, and fails to disclose more specific information about impacts to individual HRCAs and home ranges for either alternative.

- The 2001 Framework strictly limited logging within HRCAs based on the recognition that spotted owls preferentially use core areas within their home ranges (Bingham and Noon 1997) and that degrading habitat within HRCAs will likely reduce owl survival and reproductive success (Bart 1995; USDA Forest Service 2001a, Volume 3, Chapter 3, part 4.4, pp. 92-93). With respect to each HRCA, the EIS should identify the current amount of owl nesting and foraging habitat and the amount that will be degraded and rendered unsuitable under the various alternatives. This was specifically identified by the Science Consistency Review as important information to be addressed in environmental planning. (Stine and Keane 2003, pp. 4, 6). The analysis should assess the percentage of suitable nesting and foraging habitat within each HRCA both before and after project implementation. Based on Blakesley's analysis of 500 acre nest core areas, 83 percent suitable habitat within each HRCA appears to be a reasonable target. (Blakesley 2005b). "Without analyzing habitat loss in individual HRCAs, it is impossible to assess accurately the potential impacts on the owls utilizing the HRCAs. Thus, the possibility that the North 49 project will disproportionately impact particular HRCAs is not disclosed, and this potentially severe impact is effectively swept under the rug." (Bond 2004, p. 5).
- With respect to each owl home range, the EIS should identify the current amount of owl nesting and foraging habitat and the amount that will be degraded by the project, and should describe the spatial configuration of such habitat. The DEIS discloses the current amount of nesting and foraging habitat within owl home ranges (DEIS, p. 125; Table 59), but fails to analyze or disclose the amount of such habitat that will remain under the various alternatives. The QLG EIS analyzed impacts to owl home ranges based on the assumption that 50 percent suitable habitat was an important threshold. (USDA Forest Service 1999b, pp. 3-103 to 3-105). Based on our review, the DEIS does not appear to provide any such information at the scale of owl home ranges.
- The Forest Service should carefully analyze the impacts of logging within the AOC, particularly the extent to which logging may exacerbate habitat fragmentation and affect the owl's distribution and dispersal in the planning area. The EIS concedes that Alternative 1 will "exacerbate habitat fragmentation" and "could isolate the existing breeding territories." (DEIS, p. 132). Although the EIS asserts that Alternative 3 "would maintain connectivity" (DEIS, p. 136), it lacks the information and analysis to support this claim. In particular, the DEIS fails to disclose how Alternative 3 will affect habitat within and between owl home ranges and HRCAs.

- The EIS acknowledges that owl foraging habitat “may be overestimated” in the EIS, because the vegetation mapping only addresses tree size and density and does not address other required habitat characteristics, such as snags and down logs. (DEIS, p. 125). Yet, despite this disclaimer, the EIS makes no effort to correct this overestimate, e.g., by surveying owl habitat on the ground to estimate the percentage by which the vegetation mapping likely exaggerates suitable owl habitat, or by using other methodology to predict the likely mapping error. The EIS should at least attempt to estimate the likely error so that the information used in the owl habitat analysis is more likely to be accurate. Over-reliance on lower quality CWHR 4M strata, simply because this strata label qualifies as suitable within the CASPO definitions, places spotted owls in the N49 project at increased risk. The EIS should accurately estimate (by surveying) the utility of the foraging habitat to owls. In other words, reliance on 4M with 12-15” dbh trees and lower canopy is much less useful to owls than 4M with 20” dbh trees and 50% canopy yet both are 4M foraging habitat, the latter being much more likely to be used by owls, the former, not.
- The DEIS p. 129 discloses longer term impacts to owls stating that it would take “several decades” to re-establish the abundance of hypogenous fungi necessary to support the flying squirrels, the primary prey. Since “several decades” is well beyond the life expectancy of the existing owl population, the EIS should to more clearly address the indirect effects of the N49 project on owl survival in the project area.
- The EIS should include an improved assessment of the project’s cumulative effects, which take into account present and planned logging on private lands. The DEIS p. 133; 137, relies on the 2004 Framework ROD to support conclusions regarding owl population viability on the Lassen National Forest yet the trend on the Lassen is anything but secure (see above). The EIS response to this issue should be to increase the rigor of the habitat analysis (actually assess the quality and utility of the 4M strata and improve the disclosure of cumulative impacts) and to create an additional alternative to address (reduce) the long-term risks to owls in this project.
- CSO Cumulative Effects Analysis--The *Council on Environmental Quality Cumulative Effects Handbook* (1997) identifies strategies to properly assess the cumulative effects on past, current and reasonable foreseeable future actions. The CEQ Handbook, (p.12) states that, “[P]roject-specific analyses are usually conducted on the scale of counties, forest management units, or installation boundaries, whereas cumulative effects analysis should be conducted on the scale of human communities, landscapes, watersheds, or airsheds.” The CEQ Handbook further states that the cumulative effects analysis should, “[D]etermine the geographic areas occupied by those resources **outside** of the project impact zone. In most cases, **the largest of these areas will be the appropriate area for the analysis of cumulative impacts**” (Ibid p.15, emphasis added).

The North 49 Project cumulative effects discussion is limited to the “wildlife analysis area” and includes 55,722 acres. The “wildlife analysis area” identified in the North 49 DEIS fails to adequately address potential cumulative impacts to the California spotted owl. Spotted owls do not reside at the nest stand throughout their life cycle but instead exhibit a variety of dispersal and migration behaviors of varying distances throughout their year lifespan.

Natal dispersal, breeding dispersal and seasonal elevational migrations are common in the spotted owl research literature. There is no evidence that spotted owl young remain with the parents for significant periods after fledging and the onset of winter. There are no “room additions” added on to the nest site to accommodate the young of the year. Instead, the juvenile birds disperse, in some cases significant distances to establish new territories. Adults will occasionally move locations and breeding dispersal is common annually in most locations. (Layman 1988; Blakesley 2005; Steger and Eberlein in CASPO p. 66; Tibstra 1999).

There is no meaningful discussion of the actual effects of these past projects and current activities on a wide-ranging species such as the spotted owl. Breeding dispersal, juvenile dispersal, and seasonal (elevational) migration behavior are all impacted by fragmentation and habitat loss which in turn impact long-term adult survival. This information is critical for any proper assessment of the indirect effects of each of the current projects on individual owl sites and long-term viability of the population within the project area.

Impacts from past activities including logging, fires, urbanization, grazing and roads all generate cumulative impacts that effect spotted owls in the surrounding landscape within and outside the current wildlife analysis area. Scientifically valid cumulative effects analysis must be conducted on the potential impacts to at-risk species in terms of all their behavioral life cycle functions such as foraging, nesting, dispersal, migration, not limiting the analysis to an arbitrary line on a map but rather addressing the actual movements of, and stressors on, the local and regional owl population. For example spotted owls on the Lassen National Forest have a breeding dispersal distance of (median 7 km, range = 1-33 km or 19.8 miles). Laymon (1988) found straight line natal dispersal distances of spotted owls on the Eldorado NF of 8.8 and 11.5 miles from their natal sites. One of the Eldorado owls dispersed all the way south to Columbia, California, a distance of approximately 75 miles (see CASPO Technical Report p.66). Tibstra (1999) shows natal dispersal mean distances of 9.9 miles on the Sierra National Forest. Likewise, Laymon (1988) found 8 of 10 owls with significant elevational displacement between summer and winter habitats of 10-36 miles (n=20 miles) CASPO Technical Report (p.64). Similar to migrating deer, although not moving in herds, spotted owls move significant distances beyond nesting areas and are impacted by logging projects, roads, urbanization, fires, barred owls, other predators, disease and parasites, in the project and outside of it.

The DEIS fails to disclose actual effects on owls and other wildlife species in the North 49 Project area. The DEIS is absent a meaningful discussion or quantitative or spatial analysis of the actual cumulative impacts associated with all the specific plans, permits and projects impacting the analysis area and the larger landscape which is the potential dispersal landscape.

A cumulative effects analysis that ignores cumulative impacts to owls and their offspring is doomed to failure. Focusing simply on an area on a map that fails to identify potential impacts associated with spotted owl behavior (dispersal, migration) on the larger landscape fails to meet NEPA's requirements for taking a "hard look" and the need for discussing relevant potential impacts. If owls are unsuccessful in dispersal and migration, due to lack of suitable habitat or other factors, and the Forest Service fails to account for these impacts in their planning and implementation of projects, then decision-makers are gambling with the public's resources and fail to have legal or scientific support for their decisions.

III. American Marten and Pacific Fisher

The DEIS fails adequately to consider and disclose the marten's imperiled status in the northern Sierra Nevada and the importance of the project area to ensuring the marten's viability and distribution in the region. Recent studies by leading Forest Service forest carnivore experts compared contemporary and historical distributions of habitat and populations for forest carnivores, including the marten. (Zielinski et al. 2005; Zielinski 2004). The research concluded that the marten is a species "with substantial changes in distribution," including "large gaps between contemporary detections that were not present historically" in the northern Sierra Nevada and southern Cascades. (Zielinski et al. 2005, p. 1394). The authors conclude that marten "populations in the southern Cascades and northern Sierra Nevada now appear discontinuous." Notably, "the areas of Plumas and Lassen County where martens were not detected, and which have been managed for timber harvest, have relatively little forests with late seral/old growth attributes." (Zielinski et al. 2005, p. 1394). The authors conclude that the apparent reduction in the range of the marten and other forest carnivores is most likely due to a combination of factors, including "loss of mature forest habitat." (*Ibid.*, pp. 1385-86).

As discussed by forest carnivore expert Dr. Tom Kucera in his earlier critique, the North 49 area "appears to be extremely important to the marten population at a landscape scale" because habitat quality to the east and west of the area is not suitable for marten. (Kucera 2004, p. 3). Therefore, as the Forest Service acknowledged in the previous BE for this project, "marten connectivity between northern populations and southern populations appears to be limited to pathways in the North 49 analysis area." (BE, p. 43; see also DEIS, p. 155). In addition, the Forest Service has in other contexts repeatedly acknowledged the importance of the North 49 area for marten. For example, under the Lassen National Forest LRMP, much of the project area was included within a marten "habitat management area" within which scheduled timber harvest was prohibited. Similarly, under the 2001 and 2004 Framework, the project area will be managed as an

“old forest emphasis area” after the Quincy Library Group pilot project ends. (See Britting 2004). Therefore, as Dr. Kucera concludes, “there is every reason to believe that the North 49 area plays a critical role in maintaining the marten’s distribution and viability in the northern Sierra Nevada.” (Kucera 2004, p. 3).

There is strong evidence that logging pursuant to the 2004 ROD, particularly logging of medium and large trees, reduction in canopy cover, removal of large snags and down wood, and logging within the QLG pilot project area, will degrade marten denning, resting, and foraging habitat. (SNFPC *et al.* 2004, pp. 45-48). Given the risks to the marten of implementing the 2004 ROD, it is essential that the Forest Service take a detailed and careful look at the likely impacts on the marten and its habitat of implementing the project. An adequate analysis should address, at a minimum, the following issues. (See SNFPC *et al.* 2004, pp. 41-48, 83-85).

- The Forest Service should disclose the impact of group selection openings on the marten. Given the marten’s sensitivity to forest openings, the Forest Service should analyze the percentage of openings within the project area before and after project implementation with respect to a threshold of 20-25 percent forest openings. (Hargis and Bissonette 1997; Hargis *et al.* 1999; Chapin *et al.* 1998; Potvin *et al.* 2000). As summarized by the U.S. Fish and Wildlife Service, “marten are ... sensitive to forest openings, tolerating a landscape that has no greater than 20-25 percent openings.” (USDI Fish and Wildlife Service 1999). Kucera demonstrated in his earlier critique that the percentage of forest openings in the project area is currently approximately 20 percent. (Kucera 2004, p. 4). “Given that group selection treatments are concentrated in portions of the project area, and that barren areas and other existing openings may be similarly concentrated, there is a good possibility that the percentage of openings will exceed 25 percent in portions of the project area.” (*Ibid.*). The EIS should analyze and disclose the extent to which implementing the project may result in forest openings in excess of 20-25 percent in potential marten home ranges and throughout the project area.
- The Forest Service should carefully address the impacts of proposed logging on marten habitat connectivity and on the fragmentation of existing habitat. (SNFPC *et al.* 2004, pp. 38-39). Special attention should be paid to impacts of proposed DFPZs or road construction on habitat connectivity and fragmentation within the QLG pilot project area, which has been identified by the Forest Service and others as a significant concern. (SNFPC *et al.* 2004, pp. 47-48; USDA Forest Service 1999c, pp. 8-9). The 2004 ROD directs the Forest Service to “minimize old forest habitat fragmentation,” to assess fragmentation issues in the [biological evaluation], to assess potential impacts on habitat connectivity, and to consider retaining forested linkages as part of “project-level analysis.” (USDA Forest Service 2004b, pp. 53-54). Similarly, the QLG plan requires that “habitat connectivity ... be maintained to allow movement of old forest ... species between areas of suitable habitat.” (USDA Forest Service 1999c, p. 9). The DEIS acknowledges that Alternative 1 may adversely affect marten habitat connectivity

and dispersal (DEIS, p. 157). The DEIS further asserts that Alternative 3 would address this problem, but lacks adequate analysis and information to support this conclusion. (DEIS, p. 158).

- The EIS should disclose the amount and intensity of proposed logging within the forest carnivore network previously identified by the Lassen National Forest and how such logging may affect the ecological values within these areas. These areas were set aside “to provide breeding areas and travel corridors to facilitate movement of individuals and genetic exchange throughout the length of the Forest.” (Lassen National Forest 1992, p. T-1). As the Forest Service has previously recognized, “there is no research data or other empirical evidence to suggest that we can harvest within furbearer areas and still maintain suitable habitat conditions.” (Lassen National Forest 1992, p. T-2). The EIS should explain how logging within these areas is consistent with protecting their habitat value for marten, based on the best available information.
- There is considerable overlap between marten sitings and planned group selection units under both Alternatives 1 and 3. (DEIS, p. 153; Figure 23). As a result, it appears likely that marten den sites are “within treatment areas in this project.” (DEIS, p. 151). Given that the marten’s status in the northern Sierra Nevada is imperiled, and that the project area appears to be critical for marten connectivity, adverse impacts to potential marten den sites, together with the project’s other impacts, are likely to threaten the marten’s viability and distribution in the planning area. These issues need to be assessed more carefully in the EIS.
- The foregoing concerns also apply to the Pacific fisher and its habitat. In addition, we are concerned that the North 49 project may adversely affect east-west habitat connectivity for the fisher, which the DEIS acknowledges “may be important.” (DEIS, p. 165).
- The consideration of the project’s cumulative impacts on the marten and fisher and their habitat, particularly in light of past, current, and planned logging on public and private lands, needs to be improved.

IV. Management Indicator Species

In the 2004 ROD, the Forest Service readopted Appendix E of the 2001 SNFPA FEIS, including the requirements for monitoring various Management Indicator Species and Species at Risk (“MIS/SAR”). (USDA Forest Service 2004b, p. 70). These species are considered particularly sensitive to impacts from National Forest management.

Reliance on habitat models does not satisfy the obligation under the NFMA to conduct population surveys for certain Management Indicator Species (“MIS”) bird (or other) species. The NFMA requires that a forest plan “comply with substantive requirements of the [NFMA] designed to ensure continued diversity of plant and animal communities and

the continued viability of wildlife in the forest. . . .” *Austin*, 430 F.3d at 1063; *see also* 16 U.S.C. § 1604(g)(3)(B).

- For each MIS or SAR within the analysis area, the EIS should discuss all available population monitoring data, including the dates the monitoring occurred, the areas that were monitored, and the results of such monitoring. The EIS should specifically disclose any available local information regarding species distribution, trends in distribution over time, and population trends for such species, based on the monitoring data.
- Based on the monitoring data, the EIS should assess the direct, indirect, and cumulative impacts to each MIS/SAR affected by this Project. Given that the vegetation layer is admittedly inaccurate, particularly by failing to include information about snags and down wood (DEIS, p. 125), analysis of impacts to MIS such as pileated woodpecker based upon habitat information is clearly insufficient.
- Based on the information in the DEIS, the Forest Service has failed to obtain and analyze required monitoring data for numerous MIS, including the pileated woodpecker and hairy woodpecker. The FEIS should carefully address the project’s impacts on the pileated woodpecker and its habitat. The Lassen National Forest has designated the pileated woodpecker as an MIS or “emphasis species” whose population is “declining.” The pileated woodpecker is associated with large snags and dense canopy forests. (Lassen National Forest 1992b, p. 3-98). As described in the Lassen forest plan, the pileated woodpecker’s preferred habitat includes an abundance of large snags greater than 20-25” dbh. (Lassen National Forest 1992a, p. O-17). Research indicates that logging can have a “significant impact on habitat” and that “[r]emoval of large-diameter live and dead trees, of downed woody material, and of canopy closure eliminates nest and roost sites, foraging habitat, and cover.” (Bull and Jackson 1995). For example, the QLG EIS reports that implementing the QLG project would significantly reduce habitat value for the pileated woodpecker, by 23-35 percent. (USDA Forest Service 1999b, p. AA-19). Given that the North 49 project will reduce the number of large trees and snags and reduce canopy cover, it is reasonable to anticipate similar impacts at the project level. These impacts, and their effects on the viability and distribution of the pileated woodpecker in the project area, need to be analyzed in the EIS.
- The MIS information on Black bears DEIS p. 181, includes a statewide population trend graph which fails to disclose impacts to black bears in the project area and therefore fails to meet NEPA’s requirement for taking a “hard look” at specific impacts to MIS. Also, the Black bear data displayed in the DEIS at www.dfg.ca.gov/hunting/bear/index.htm 4/29/04 is based upon bear hunting tag numbers and for the Sierra Nevada addresses the Sierra floristic province which includes Plumas county to the north, not Lassen county or the Lassen National Forest. The

North 49 DIES should be revised to include site-specific habitat and population information as required by NFMA and the existing Lassen forest plan.

V. Alternatives

NEPA and the CEQ regulations require that the Forest Service “[r]igorously explore and objectively evaluate all reasonable alternatives.” 40 C.F.R. § 1502.14(a). The requirement that agencies consider all reasonable alternatives “is at the heart of the environmental impact statement.” 40 C.F.R. § 1502.14. The purpose of this requirement is to “sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decisionmaker and the public.” *Ibid.*

The North 49 DEIS fails to consider all reasonable alternatives. The EIS should include alternatives with lower logging diameter limits (e.g., 20” diameter) and higher canopy cover retention standards (e.g., 50 percent). These are reasonable alternatives as defined by NEPA because they will reduce the project’s adverse impacts to old forest wildlife while meeting the project’s purpose and need. For this reason, owl scientists have urged the Forest Service in similar contexts to consider alternatives that would achieve fuels objectives while maintaining owl habitat:³

The Forest Service asserts that owl habitat is “at a greater risk of being lost to wildfire than the proposed treatments” ... but the FEIS fails to consider whether the Forest Service’s fuels objectives can be attained with fewer adverse impacts to owl habitat. Specifically, the FEIS fails to consider in detail any alternative that would retain greater canopy cover (e.g., 50 percent) and would protect medium and large trees (e.g., trees greater than 20 inches diameter). Such an alternative would have significantly fewer adverse effects to owl habitat while still achieving the Forest Service’s goal of reducing the likelihood of stand-replacing wildfire. (Bond 2005, p. 5; see also Blakesley 2005a, pp. 3-4).

As the court recognized in *Sierra Club v. Bosworth*, 2005 WL 2204986 (N.D. Cal. 2005), the failure to consider logging alternatives involving fewer impacts to old growth wildlife is unreasonable:

There can be little dispute that fire poses a threat to the [old forest wildlife] and must be considered in an environmental analysis. However, the proper question given all the available science is not only whether a project protects the Forest from catastrophic fire, but also whether it does so in a manner that has the least impact on sensitive species. For example, a reasoned analysis likely would revisit the original canopy cover and tree diameter restrictions to determine ... whether restrictions set at other levels would still protect the forest from fire while better protecting important habitat features.

Id. at *9 (emphasis added).

³ These comments were made in the context of reviewing the Creeks project on the Lassen National Forest, but they apply with equal force to the North 49 project.

There is substantial evidence indicating that it is not necessary to reduce canopy cover to 40 percent, as proposed in the North 49 project, to reduce the risk of catastrophic wildfire. Much of this evidence is cited in the Campaign's appeal of the 2004 ROD. (SNFPC et al. 2004, pp. 62-71). Fire ecologist Carol Rice provides a detailed review of relevant scientific literature and case studies demonstrating that the goal of reducing catastrophic wildfire and promoting fire resilient forests can be met without logging trees up to 30" diameter or reducing canopy cover to 40 percent or below.⁴ (Rice 2005). Thus, for example, Stephens and Moghaddas (2005a) studied a range of treatments on the Blodgett Forest in the central Sierra Nevada as part of the Forest Service's national Fire and Fire Surrogate study. They found that all studied treatments effectively reduced surface fire behavior and crown and torching indices while maintaining canopy cover in excess of 50 percent. Similarly, in a different study in the same area, Stephens and Moghaddas (2005b) concluded that thinning from below was more effective at reducing predicted mortality in trees up to 51 cm diameter when compared with any type of silvicultural treatment resulting in plantations and individual tree selection, despite the fact that canopy cover in the thinning from below treatment was 57 percent. Finally, Agee and Skinner (2005), in their review of recent fires in the western United States, found that, in the Megram fire, "some effective fuelbreaks had only surface fuels and ladder fuels treated, with residual canopy cover exceeding 60-70%." According to the authors, these results suggest that "reductions in canopy bulk density are not always needed to reduce wildfire severity."

The analysis in the DEIS reveals very little difference on fire behavior between Alternative 3, which utilizes a 50 percent canopy cover standard in many stands, and Alternative 1, which utilizes a 40 percent canopy cover limit. (DEIS, pp. 99-103). This provides further site-specific evidence that the Forest Service's fuels reduction goals can be met with a 50 percent canopy cover standard.

With respect to the size of trees to be logged, there is overwhelming evidence that it is not necessary to remove medium and large trees to achieve fuels objectives. "Most of the trees that need to be removed to reduce accumulated fuels are small in diameter and have little or no commercial value." (U.S. General Accounting Office 1999, p. 44). "When thinning is used for restoration purposes in dry forest types, removal of small diameter material is most likely to have a net remedial effect. Brush, small trees, along with fine dead fuels lying on top of the forest floor, constitute the most rapidly ignited component of dry forest." (Christensen et al. 2002, p. 2). Similarly, Perry et al. (2004) and Omi and Martinson (2002) both found that severe fire could be prevented with an 8-10" dbh limit, followed by prescribed burning or mastication. The DEIS should address this research

⁴ Although Rice's statement was prepared as part of a review of the Creeks project on the Almanor Ranger District of the Lassen National Forest, the statement is generally applicable to the North 49 project as well. Her comments are attached hereto and incorporated by reference. We are also attaching Rice 2006 (Kings River Project comments) as they are also generally applicable and informative regarding a variety of issues including fire behavior model selection, the need for crown thinning, crown fire spread, and a review of various fire behavior research papers and they relate to North 49's fuels treatments and analysis.

and incorporate lower diameter limits into specific alternatives, or explain in detail why these studies do not apply to the North 49 project area.

In particular, the EIS should include an alternative based upon the 2001 Framework. An alternative based on the 2001 ROD is a “reasonable alternative” as that term is used in NEPA, for several reasons. First, there is strong support for the 2001 ROD within the scientific community, federal and state agencies, and the public. As demonstrated in the Campaign’s administrative appeal of the 2004 ROD, leading researchers on the California spotted owl, Pacific fisher, and American marten have criticized the 2004 ROD and urged the Forest Service to implement the 2001 ROD instead. (SNFPC et al. 2004 with attachments). The overwhelming opinion of leading wildlife experts in support of the 2001 ROD demonstrates that an alternative consistent with the 2001 ROD requires consideration in the EA or EIS for this project.

Second, the U.S. Environmental Protection Agency, in its scoping comments on this project, specifically requested that the Forest Service evaluate an alternative that would implement the 2001 Framework and “include a description of the various environmental, social and economic issues, and the pros and cons of each management approach.” (U.S. EPA 2004). As noted by EPA, “public debate continues regarding the scientific basis for; the fuel management, environmental and social benefits of; and the adverse effect associated with the 2004 SNFPA ROD versus the Sierra Nevada Framework.” Therefore, EPA urged the Forest Service to “reconsider whether to evaluate an alternative which would implement the 2001” Framework.

Third, there is enormous public support for the 2001 ROD, including over 6,000 administrative appeals of the 2004 ROD.

Fourth, a 2001 ROD alternative needs to be considered to “sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decisionmaker and the public.” 40 C.F.R. § 1502.14. As discussed by owl and marten experts in their comments on similar projects, “[a]n obvious alternative that should be analyzed is one based on the 2001 Framework.... Such an alternative would have a much less adverse impact on marten populations and habitat connectivity while meeting the project’s purpose and need.” (Kucera 2005, p. 5). Similarly, Dr. Blakesley states in her comments:

The choice to be made should not be whether to do *one* thing or do nothing. Rather, a variety of treatment options should be presented, including at least one that retains at least 40-50% canopy cover in all suitable owl foraging habitat, at least one option that limits the diameter of harvested trees to 20” or less, and at least one that does not include group selection harvesting. In particular, the EIS should model an alternative based upon the 2001 SNFPA, which incorporates several of these features. This would allow decision makers and the public to fairly evaluate a variety of timber harvest alternatives with respect to fire, insect pests, mistletoe, wildlife, recreational, and other considerations. (Blakesley 2005a, p. 4).

VI. Cumulative Impacts

EISs are required to consider cumulative impacts, which are the impacts on the environment from the proposed action “when added to other past, present, and reasonably foreseeable future actions regardless of what agency ... or person undertakes such other actions.” 40 C.F.R. § 1508.7. The Ninth Circuit has recently clarified NEPA’s cumulative impacts requirement in two decisions, both of which overturned Forest Service timber sales for failing adequately to consider cumulative impacts. See *Klamath-Siskiyou Wildlands Center v. BLM*, 387 F.3d 989 (9th Cir. 2004); *The Lands Council v. Powell*, 379 F.3d 738 (9th Cir. 2004). In addition, the Ninth Circuit has recently confirmed that timber sale EISs must analyze the cumulative impacts of logging on private lands within the project analysis area. *Natural Resources Defense Council v. U.S. Forest Service*, 421 F.3d 797, 814-16 (9th Cir. 2005).

To comply with NEPA, an EIS must discuss the environmental impacts of past, present, and proposed logging; a mere listing of projects and acreage, in the absence of specific analysis of the environmental impacts of the projects, is inadequate. “[T]he general rule under NEPA is that, in assessing cumulative effects, the EIS must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment.” *The Lands Council*, 379 F.3d at 745. In particular, the EIS must include “discussion of the connection between individual harvests and the prior environmental harms from those harvests.” *Id.* at 744. The EIS also needs to provide “adequate data of the time, type, place, and scale of past timber harvests.” *Id.* at 745.

It is essential that the cumulative effects analysis provide “quantified or detailed information; ... [g]eneral statements about possible effects and some risk do not constitute a hard look.” *Klamath-Siskiyou*, 387 F.3d at 993. Thus, for example, EISs need to include “quantified assessment” of the “combined environmental impacts” of the various projects considered, *id.* at 994. Not only does the cumulative effects analysis need to provide quantified data with respect to factors such as the amount of spotted owl habitat that will be affected, *id.* at 994 n.1, but “the effect of this loss on the spotted owl” and other species throughout the planning area also needs to be analyzed. *Id.* at 997.

In addition to considering logging on public lands, it is essential that the analysis also address logging on private timberlands. (SNFPC *et al.* 2004, pp. 95-98).

The discussion of cumulative impacts in the North 49 DEIS falls far short of these requirements. Thus, for example, the DEIS discloses the acreages and prescriptions of other projects, but fails to assess the cumulative amount of old forest habitat that will be degraded or rendered unsuitable by these projects, the impacts of such habitat degradation on a spatial scale, or how such impacts are likely to affect the viability and distribution of species. Appendix A supplies a lengthy list of project names, dates and activities with potential cumulative impacts to species in the North 49 project. Unfortunately, the DEIS lacks any quantitative data or discussion regarding the meaning (possible impacts) of the exhaustive list of past, current, and foreseeable projects in

relation to resources in the North 49 area. Simply citing large lists of projects fails to meet NEPA's requirements for taking a "hard look" at cumulative effects.

* * * *

In sum, the North 49 fails to include the information, analysis and alternatives necessary for a careful assessment of the project's likely impacts. The DEIS should be revised, and a revised DEIS should be circulated for additional public comment.

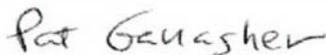
Thank you for considering these comments.

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⁵ We hereby incorporate these references into our comments. If you need copies of any references, please contact us.

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