

## Memorandum

Date: January 4, 2010

To: Mr. Ken McLean, Chief  
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### *Original signed by*

From: Charles Armor, Regional Manager  
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Subject: Non-concurrence with Review Team Chairperson's Recommendation for Approval of  
Timber Harvesting Plan 1-08-063 SMO "Lagomarsino"

The Department of Fish and Game (DFG), by this memorandum, is providing notification pursuant to Forest Practice Rules (FPR) Section 1037.5(e) of our non-concurrence with the Review Team Chairperson's (RTC) recommendation that Timber Harvest Plan (THP) 1-08-063 SMO is in conformance with the Rules of the Board of Forestry and is not likely to result in significant adverse impacts to the environment.

Upon the close of review team meeting on December 29, 2009, the RTC recommended that the THP be found in conformance with the Rules of the Board of Forestry if the concerns and suggestions of the RTC are addressed before the close of public comment.

DFG's non-concurrence is based on conclusions reached following review of the THP and DFG's legal and trustee authority to protect, maintain, and enhance fish and wildlife resources of the State. DFG participated in the pre-harvest inspections (PHI) on March 18, 2009, May 14, 2009, and October 5, 2009, and submitted a PHI report dated July 21, 2009 and a supplemental memorandum on October 1, 2009. Two DFG recommendations that are discussed and justified in our PHI report have not been incorporated into the THP.

### Recommendation 5

*The THP shall be revised to include language stating that no trees exhibiting old-growth characteristics shall be harvested, no large woody debris shall be harvested and no snags shall be harvested.*

### Recommendation 6

*If Recommendation 5 is not included, the THP shall provide a thorough evaluation of LSF habitat within and adjacent to the THP area including any LSF within the Kings Grove NTMP (1-96NTMP-005 SMO). This evaluation shall include a map showing the location and acreage of LSF stands within and adjacent to the THP area, the total trees in each size*

*class retained and marked for harvest, and the number of trees marked as wildlife trees. The THP shall include adequate and feasible mitigation measures for the loss of LSF habitat elements. The preferred alternative would be the permanent retention of LSF habitat elements through a Conservation Easement.*

The DFG PHI report discusses the presence of a 10-acre patch of potentially suitable marbled murrelet breeding habitat in the northern portion of the plan area. This 10-acre patch contains trees which possess multiple characteristics typical of old-growth conifer that are beneficial to wildlife. These characteristics include large and rotting basal hollow cavities, reiterated tops, and/or large spreading limbs. At least 14 (all 60 inches diameter at breast height or greater) of the 44 large old trees identified within the 10-acre patch were observed to be marked for harvest during the PHI. The DFG PHI report acknowledges that this 10-acre patch does not meet the FPR § 895.1 definition of Late Seral Forest (LSF) due to its area but notes that it possesses all other characteristics of a LSF including the presence of multiple canopy layers, large decadent trees, snags, and large downed logs. A memorandum written by CAL FIRE Assistant Deputy Director, Mr. Duane Shintaku on March 2, 2005 recognizes the potential biological, cultural, historical and aesthetic value or significance of stands of large old trees, as well as some individual specimens. The memorandum states that potential significant adverse impacts pertaining to large old trees must be adequately disclosed, evaluated, and mitigated within the context of the existing FPRs, California Environmental Quality Act (CEQA), and the California Endangered Species Act (CESA) and extends this assessment to individual large old trees and small stands of large old trees less than 20 acres in size.

Prior to Second Review on August 29, 2009, and in accordance with the 2005 CAL FIRE Memorandum, pages 65.1 and 65.2 were added to Section IV of the THP to disclose the presence of large old trees within the plan area. In response to further requests from CAL FIRE, these pages were replaced on December 28, 2009 with pages 43.1, 43.2, 43.3, and 43.4. These additional pages state that less than 25% of the large old trees were marked for removal and that the largest trees and those with the best wildlife characteristics have been retained. These statements contradict the DFG PHI report which documents 32% of the large old trees marked for harvest including 7 that possess multiple wildlife tree characteristics such as basal hollows.

The newly revised THP pages also state that 1) trees were marked out and/or switched as recommended by DFG to assure that the best individuals are retained, and 2) that all trees with large hollows are being retained. This statement is direct contradiction to the letter addressed to DFG that was added to the THP on December 1, 2009. This letter states:

“...we will agree to switch the 7 trees as you recommend with similar sized trees with less habitat value **provided that your agency does not non-concur with a recommendation for approval by CALFIRE.** If you do not agree to our condition, we will not switch said 7 trees, as in our opinion that does not show good faith negotiating on a balanced Plan.”

Having these two statements in the THP causes confusion and provides no assurances of the intent or the required actions regarding these 7 trees. Although there was some discussion of marking out trees on the October 5, 2009 PHI, it was never agreed upon as a

substitution over switching these trees for other nearby trees of similar size. DFG is not aware of any additional PHI that has taken place besides the dates provided above. At the last PHI on October 5, 2009, six of the seven trees were given numbers in orange spray paint and their locations recorded in the DFG GPS unit. None of these six trees were unmarked or "X"ed out and no other trees were marked for harvest. Therefore, it is the understanding of DFG staff that the trees in the field given an orange number remain as such and have not been marked out and/or switched. The fate of these trees should be clarified not only in the THP but also in the field. Additionally, based on the mark observed during the multiple PHIs, all trees with large hollows are not being retained. The THP should also clarify what is meant by "large" hollows.

DFG supports the retention of the six trees numbered in orange paint and any other trees within the plan area possessing basal hollows. Gellman and Zielinski (1996), Hunter and Mazurek (2003), and Hunter and Bond (2001) found that fire-derived basal hollows provide particularly high wildlife habitat value. In another study of the habitat value provided by legacy trees, Mazurek and Zielinski (2004) found the presence of a basal hollow to add the greatest habitat value to legacy trees. The presence of legacy redwoods with basal hollows is rare in private timberlands and the formation of new basal hollows is even rarer given that most fires on private lands are suppressed (Finney 1996). Trees with basal hollows are of extremely high value and are an irreplaceable habitat feature. Therefore, trees with high wildlife value providing late-seral habitat elements within the THP area that are lost during this harvest will likely never be replaced, particularly if the trees being harvested are in excess of 200 years old and possess basal hollows.

The pages added to the THP on December 28, 2009 contain some information regarding the Vaux's swift that is misleading. The THP reports the Vaux's swift (and others) to have a conservation status of "Least Concern." This status is not described or explained and it is unknown where this status was derived. It may be more appropriate to use the DFG status, which has ranked this species as a Species of Special Concern, Priority 2. The THP also states that the most important habitat requirement of the Vaux's swift is an appropriate nest-site in a large hollow tree and concludes that no impacts will occur due to the retention of all snags and live cull trees within the plan area that will provide nesting habitat. However, the THP does not acknowledge that nests in California are also located in basal hollows of large-diameter living redwood trees (Hunter and Mazurek 2003), formed when repeated fires incrementally enlarge the cavity by burning out rotten wood (Fritz 1931, Shuford and Gardali 2008). Therefore, if the THP does remove a number of basal hollows it should be revised to state that there will be an impact to potential nesting habitat of Vaux's swift, a California Species of Special Concern.

The THP does not contain adequate and feasible mitigation for the permanent loss of trees with old-growth characteristics and late seral habitat elements. Mitigation offered by the Registered Professional Forester appears to possibly include trading six trees marked for harvest that were numbered during the October 5, 2009 PHI. DFG considers this mitigation inadequate. Switching the mark on six of the already existing large old trees on-site to other large old trees possessing less wildlife characteristics does not replace the habitat elements and structural complexity that will be lost when the large old trees are removed.

The THP provides no supporting evidence that habitat elements lost from harvesting these large old trees will be created in other trees by the next harvest cycle. Based on site conditions, DFG believes creation of old-growth characteristics within existing second-growth trees is impossible in a 10- to 15-year time frame. Replacing the structural conditions and functional wildlife values of any harvested existing legacy trees with current second-growth redwood would likely require 200 years or longer (Noss 1999). Additionally, planned harvest rotations on most commercial forestlands do not permit trees to mature to their age of maximum value to wildlife (Mazurek and Zielinski 2004). In selection silviculture, wildlife tree recruitment may be interrupted through thinning or felling of stems in the upper size classes. In one case study, Kenefic and Nyland (2000) found reductions in snag and cavity tree density following selection treatments.

Only three to five percent of original old-growth forest remains, which are mostly found within a patchy mosaic of second- and third-growth forests (Thornburgh and others 2000). The majority of forest stands within the Santa Cruz Mountains are second-growth and do not possess old-growth characteristics. The dominance of second-growth trees throughout the Santa Cruz Mountains is due to the harvesting of old-growth trees in the late 1800s and early 1900s. This turn-of-the-century harvesting created a regional scarcity of late-seral forest habitat and large old trees, which are even more uncommon on managed timberlands. Loss of the large old trees and their late-seral habitat elements within the 10-acre patch of large old trees on-site will further decrease the overall value and diversity of habitat provided for wildlife resources throughout the Santa Cruz Mountains.

DFG believes that harvesting and mitigation as proposed in this THP in conjunction with the last entry and foreseeable future entries will further contribute to the cumulative significant adverse permanent loss of late-seral habitat elements and high quality wildlife trees on this property. Under the current plan, it is possible that almost all of the large old trees within the 10-acre patch of large old trees could be harvested before the existing second-growth on-site develops into similar type large old trees. This eventual loss of the majority of large old trees on-site will also curtail any recruitment for snags and large woody debris and ultimately eliminate much of the late-seral habitat elements currently present on-site. Given this loss of existing large old trees coupled with the lack of recruitment of late-seral habitat elements within the THP area, the THP does not appear to comply with FPR § 897(b)(1)(B and C).

If the THP is revised to include language stating that no trees exhibiting old-growth characteristics shall be harvested, no large woody debris shall be harvested and no snags shall be harvested and defines old-growth characteristics as defined in the DFG PHI report, cumulative significant adverse loss of habitat containing late seral habitat elements and high quality wildlife trees would be avoided.

We believe that the above recommendation is feasible and necessary to avoid or minimize impacts to fish and wildlife resources. Should you have any questions regarding this memorandum, please contact Ms. Terris Kastner, Environmental Scientist, at (408) 365-1066; or Mr. Richard Fitzgerald, Coastal Habitat Conservation Supervisor, at (707) 944-5568.

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## References

- Finney, M. A. 1996. Development of fire scar cavities on old-growth coast redwood. Pages 96-98 *In* Coast Redwood Forest Ecology and Management, J. Leblanc, Editor, University of California, Berkeley, California.
- Gellman, S.T., and W.J. Zielinski, 1996. Use by Bats of Old-growth Redwood Hollows on the North Coast of California. *J. Mamm.* 77(1):255-265.
- Hunter, J.E., and M.L. Bond, 2001. Residual trees: wildlife associations and recommendations. *Wildlife Society Bulletin* 2001, 29(3):995-999.
- Hunter, J.E., and M.J. Mazurek, 2003. Characteristics of Trees Used by Nesting and Roosting Vaux's Swifts in Northwestern California. *West. Birds* 34(4):225-9.
- Kenefic, Laura S.; Myland, Ralph D. Habitat diversity in uneven-aged northern hardwood stands: a case study. Res. Pap. NE-714. Newton Square, PA: U.S. Department of Agriculture, Forest Service, Northeastern Research Station. 4 p.
- Mazurek, M. J. and W. J. Zielinski. 2004. Individual legacy trees influence vertebrate wildlife diversity in commercial forests. *For. Ecol. and Manage.* 193: 321-334.
- Noss RF, editor. 1999. *The Redwood Forest - History, Ecology, and Conservation of the Coast Redwoods.* Washington, D.C. and Covelo, California: Island Press. 366 p.
- Shintaku, Duane. Memo to Region Chiefs dated March 2, 2005. Subject: Disclosure, evaluation and protection of large old trees. p. 3
- Shuford, W.D., and Gardali, T., editors. 2008. *California Bird Species of Special concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California.* Studies of Western Birds 1. Western Field Ornithologist, Camarillo, California, and California Department of Fish and Game, Sacramento.
- Thornburgh, D.A., Noss, R.F., Angelides, D.P., Olson, C.M., Euphrat, F., Welsh, H.J. 2000. Managing redwoods. Pages 229-262 *In* *The Redwood Forest: History, Ecology and Conservation of the Coast Redwoods.* R.F. Noss (ed.) Island Press, Covelo, California. 339 pp.