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Robert Lewin, Fire Chief

December 3, 2015

Airlin Singewald, Senior Planner
Department of Planning and Building
County of San Luis Obispo
976 Osos Street, Room 300
San Luis Obispo, CA 93408

Subject: Peer Review of Minor Use Permit Application DRC2015-00016

Dear Mr. Singewald,

This letter is in response to a request from the Friends of the Fiscalini Ranch Preserve (FFRP) to provide a review for your office of the permit application for the Monterey Pine Forest Fuel Reduction and Forest Restoration Project (DRC2015-00016) located on the Fiscalini Ranch Preserve in Cambria. The purpose of this review is to evaluate the forest management strategies proposed for the project from the perspective of a Registered Professional Forester (RPF) so as to insure that they represent a sound approach for "ensuring the long-term health and biological continuance of the Monterey pine forest", with added scrutiny on the adequacy of reforestation strategies and minimization of ground disturbance.

As you know, I serve as the Unit Forester for the San Luis Obispo Unit of the California Department of Forestry and Fire Protection (CAL FIRE). I am very familiar with the forestry issues in Cambria, including the Fiscalini Ranch Preserve, having been directly involved in planning and implementing numerous projects in the area. I have been a Registered Professional Forester (RPF #2633) for 16 years.

The review involved reading the full Project Description for the Monterey Pine Forest Fuel Reduction and Forest Restoration associated with the Minor Use Permit Application DRC2015-00016, as well as the Monterey Pine Forest Analysis Maintenance and Monitoring Program (MPFMMP) prepared by the consulting arborist firm James Allen & Associates in May of 2014. The project plan was evaluated for consistency with general best practices for forest management, as well as consistency with the recommendations made by Allen & Associates. Allen is a Registered Consulting Arborist with the American Society of Consulting Arborists, a Board Certified Master Arborist with the International Society of Arboriculture and a Certified Urban Forester with over 40 years of experience in the field. A site visit was deemed unnecessary for the review, due to my familiarity with conditions on site from numerous prior visits.

The project description correctly notes that the Monterey Pine (*Pinus radiata*) has a very restricted native range which has been fragmented and further reduced by development over the past century. In recent years, the Cambria pine forest has suffered additional losses from insects, disease and a prolonged, severe drought. The Monterey pines on Fiscalini Ranch have fared better than pines in

other parts of Cambria, but tree mortality is still estimated at 15-20% and growing. This poses a significant wildfire risk to the surrounding community and the forest itself. I am in full accord with FFRP that reducing fuel loads in the forest is the most important precaution that can be undertaken to reduce the risk of wildfire and protect the long term health of both the community and forest.
The project description does not follow a standard timber harvest plan format, but neither does it involve many of the considerations that typically factor into such plans such as placement of roads, landings and/or skid trails. The description does include the essential planning elements required for the small-scale, selective thinning that is proposed. The proposal indicates the project will be completed over five phases, consisting of pre-project monitoring, fuel load reduction, gully repair, replanting and post-project monitoring. These phases incorporate guidelines set forth by Allen & Associates in their report, including the recommendation that all field operations involving forestry be overseen by a Registered Professional Forester. I have agreed to serve in this capacity for the project and have reviewed the proposal to insure it is consistent with forestry best management practices.

The pre-project monitoring phase includes an assessment of current conditions in the project area and identification of necessary environmental safeguards. The fuel reduction phase is divided into three sub-phases: removing hazardous trees; testing alternative treatment and disposal methods; applying optimal treatments to the balance of project area. Felling of hazard trees has already been completed under emergency permits secured by CAL FIRE and the Cambria Community Services District (CCSD). Additional treatments will be applied to three 1-acre test plots before applying them to the project area as a whole. They include removing woody debris, ladder fuels, diseased branches, dead trees and thinning to 10-15 feet between stems of healthy trees of uneven age classes. Some trees will be topped to minimize damage to adjacent trees during felling. All treatments will be performed by hand crews using chain saws. The waste will be processed by chipping, burning and lop and scatter. All of the suggested treatments /disposal methods are routinely utilized in forestry operations, so the main benefit of the test plot sub-phase is gaging landowner and community preferences.

Although the proposed strategies don't represent the most efficient approach for reducing forest biomass, the reliance on hand crews, nominal use of heavy equipment, exclusion of wetland areas, retention of stumps, and scheduling removals to occur during the dry season over a short period does minimize ground disturbance. These precautions, coupled with a relatively flat topography, should result in negligible damage (e.g. compaction, erosion, depressions/ruts, or topsoil displacement) to surface or subsurface soil attributes. Some damage to surface vegetation is unavoidable throughout the project area, due to crushing from falling trees and access by work crews. However, most annual vegetation will have seeded and died back by the time work begins in the summer. Most perennial species can be expected to recover during the first rainy season, so the damage will be largely temporary in nature. The proposed pile burns are likely to cause the greatest ground disturbance. They can be expected to result in patches of bare ground with surface black ash and some increased water repellency. The soil structure should remain largely intact. Ground disturbance from pile burns will cover a miniscule portion of the total project area – likely well under a tenth of 1 per cent. Moreover, since Monterey pines are a fire adapted species, the areas beneath burn piles will actually form an excellent substrate for new generation.

My primary concerns with the proposed approach are that it may not be well aligned with requirements for available funding and will not fully dispose of fuel loads. The proposed disposal methods are not especially well suited to grant funding requirements to sequester carbon or reduce greenhouse gas emissions. Preferred methods require processing logs offsite. Moreover, hand crews alone unaided by mechanized equipment will be unable to process larger logs and will be forced to leave them on site. This will undermine fuel reduction and forest regeneration goals. I would

recommend limited use of innovative, small-scale harvesting equipment to remove more logs from the site in an environmentally sensitive manner.

The replanting phase includes a sound approach for reforestation of Monterey pines which relies heavily on improving conditions for natural regeneration and limited planting of pine seedlings on the forest perimeter. It is consistent with the MPFMMP and accepted forestry practices, although it deviates significantly from the recommendations found in the North Coast Area Plan (NCAP). Unlike NCAP which is designed for protecting pine stands from development pressures, this proposal is designed to protect pines from disease, insects and wildfire risks associated with overcrowding. Thinning dead, dying and crowded trees, as well as removing woody debris and invasive plants from the forest floor, should greatly improve conditions for natural regeneration. It will help open canopy gaps and patches of bare, mineral soil which will encourage the establishment of replacement seedlings. As noted by Allen & Associates, natural regeneration is already abundant on the ranch where conditions are "conducive to seed germination and growth", but is being suppressed in other areas by dense colonies of invasive plants and/or downed logs and woody debris. I concur with his recommendation to "focus on restoring the ecosystem within the forest and include managing suppressive and invasive plants in conjunction with modifying crowded conditions to allow for natural regeneration. The distribution of cones and seeds along with planting smaller quantities of properly spaced saplings can enhance the system." These recommendations have been incorporated into the proposed project.

The final phase of the project involves post-project monitoring to insure that treatment prescriptions were executed properly and treatments achieve the desired results over time. Here again, the inclusion of this phase is consistent with the recommendations of Allen & Associates and forestry best management practices. An ongoing monitoring program will also shape future maintenance and enhancement projects. Routine monitoring and maintenance can prevent fuels from accumulating in the forest and eliminate the need for future fuel reduction projects of this magnitude.

Sincerely,

J. Alan Peters
Unit Forester, RPF #2633