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To Whom it May Concerns:

I have been asked, in light of my position as the Forest Pathologist State Specialist of the University of California, to express an opinion on the Oakland zoo master plan and its amendment. After careful revision of the plan, I find it quite lacking of sufficient detail to ensure proposed construction and development will not result in the decline or demise of local trees. After a personal inspection of the site, I have noticed that a significant number of valuable oaks are present in the area subject to the proposed enlargement of the Zoo. Soil grading or re-grading, changes in depth of the root collar, partial flooding linked to constructions are all well known causes of an intensification of native and frequent diseases such as Armillaria root rot that will result in a rapid decline of trees in proximity of construction sites. The developers fail to describe how they are going to minimize these negative effects on what appears to be an extremely important wild population of coast live oaks in the East Bay. Additionally, in 2009, Sudden Oak Death (SOD) was reported in Knowland Park (information has been public and posted on the web at www.matteolab.org since early 2009): this exotic disease has resulted lethal to millions of oaks and tanoaks in California. Upon an on-site inspection, I have deduced the disease has just recently arrived in the Park and it is mostly affecting bay laurel leaves. Unfortunately, once established in an area on bay laurels, the disease spreads on to oaks and additionally contaminates the soil. Once bay laurels are infected, infectious SOD spores will move for relatively short distances (10-100 yards) through the air, but can be moved at longer distances by water and by human-related movement of soil. The current Master Plan ignores the existence of SOD in Knowland Park, and apparently does not address the likely issue that soil movement and heavy equipment may potentially lead to a complete infestation of the park with significantly negative consequences for the survival of oaks. It is known that some types of habitats are more conducive to disease spread than other. This knowledge, in conjunction with a knowledge of the current distribution of the disease, may help draft a plan aimed at ensuring SOD will not result in a lethal epidemic: unfortunately no mention of SOD and of how the developers will deal with it appear on the Master Plan. I am concerned development could lead to a significant acceleration of dispersal of the SOD pathogen. Other landowners (including the San Francisco Public Utility Commission) have taken SOD presence and distribution into account and have modified all construction plans (including the massive updating of water lines) to minimize the impact of SOD. It is my opinion that SOD needs to be addressed in a final Master Plan for the new Oakland Zoo by including a complete current survey of disease distribution, a designation of areas at high risk and low risk, and by including the practices that will be taken to minimize spread of the disease. As I mentioned above, simply moving heavy equipment between a clean and an infested area will potentially lead to infestation of the clean area. However, order in which sites will be selected for work, overall timing of work, and careful observation of best management practices (such as sterilization of tools and equipment, avoidance of wounds, etc.) may minimize this impact. Stands containing both bay laurels and oaks are very conducive to the disease, and if they need to be protected, it must be ensured the pathogen is not transported to these sites: additionally some selective bay thinning may need to be implemented to ensure protection of oaks in these sites. None of these aspects are dealt with in the Master Plan, yet the knowledge is available to draft a plan that will significantly reduce the impact of the proposed work. I recommend a final approval of the plan (or at least approval for tree removal by the City of Oakland) should come only after the developers have convincingly dealt with the above issues. For any further clarification, feel free to email me at matteog@berkeley.edu

Yours sincerely,

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