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Ruth Malone, Friends of Knowland Park

Dear Ruth

These are some comments on the revised Oakland zoo documentation you provided me with:

1- SOD does not kill oaks by infecting the vascular system, but mostly the cambium (factual error in the report)

2- Infection occurs mostly during the rainy season, but working in "dry spells " within the rainy season will place trees at high risk

3- Proven sources of infections are:
- infected ornamentals (probably not a big issue, but worth mentioning)
- infected bay laurels
- infected soil

4- A clear strong relationship exists between probability of infection and oaks that have at least one bay laurel within 10 m . Probability of infection goes up as number of bays around oaks increases

5- It makes sense to map vegetation to identify oaks at risk (from low to very high) depending on number of bays around them. To map as construction occurs defeats the entire purpose of disease mitigation

6- Once vegetation is mapped according to the criteria mentioned above a complete survey of current SOD distribution should occur

7- Where SOD is present : never move soil from SOD infested areas to other parts of the park, hence work has to be scheduled based on SOD distribution. That is why a survey concurrent to work is of little use

8- Work should be completed in areas without SOD first, to avoid contamination. So work should be scheduled to start in areas without SOD and then finish in areas with SOD, that is quite complex but necessary

9- In areas where oaks are at risk (independent of level of risk) all work that may lead to wounding of any part of the stem or of major branches has to occur between mid August and mid December. If rains start in the Fall, that period may be substantially shorter. (FYI: It takes four months for wounds to heal and **not** be susceptible to infection)

10- The report by the hired Plant pathologist is quite satisfactory. However, it does not fully emphasize the historical component. All evidence suggests SOD has arrived recently in Knowland park, and as a result of its short history, providing an assessment based on current distribution is obviously very limiting. The actual distribution of SOD in Marin County in 1995 was probably quite limited, but now it is basically everywhere. In addition, information generated by extensive and repeated surveys by UC Berkeley researchers has indicated an expansion of SOD in the area, suggesting Knowland Park will be potentially under an increasing risk of infection from neighboring areas. Documented increasing spread of the disease reported by UC Berkeley researchers, confirmed presence of SOD in the areas (UCB and Phytosphere Research) clearly indicate that potential impact has to be determined based on vegetational and climatic parameters, in particular co-presencee within a limited spatial scale (10 m) of bay laurels and oaks

Yours Sincerely,

Matteo Garbelotto
Associate CE Specialist
Adjunct Associate Professor