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Mr. Allen Robertson  
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Friends of the Gualala River has requested that I comment with reference to the “Partially Recirculated Draft EIR Fairfax Conversion Project” (SCH# 2004082094).

I am a California Registered Forester and a Society of American Foresters Certified Forester. I have degrees in forestry from UC Berkeley and Yale University, am a certified Climate Action Reserve Forest Project verifier and a forest carbon project developer. I have been a practicing consulting forester since 1978. As such, I am qualified to comment on these matters.

The authors of the documents contend that the project would sequester an additional 19,185 metric tons of CO<sub>2</sub>e above a baseline practice of periodic harvest. Actually, as demonstrated herein, the claim is invalid. The project developers can use the same methods to calculate whatever numbers they want to produce. The problems with the analysis are several:

**1. The Calfire Spreadsheet has no known author or documentation.**

The analysis is conducted using a spreadsheet downloaded from the Calfire website, which is accompanied by a recipe for its use. Essentially the user enters 17 estimated items, and a net carbon dioxide analysis appears. While this may or may not be a credible type of analysis, the spreadsheet’s author and its methods are entirely undocumented, rendering the process as impossible to evaluate. There is no source documentation, title page, bibliographical reference, discussion of methods, or source material. It is not even clear who wrote, developed or is responsible for the spreadsheet. Other than its appearance on a state FTP site, there is no credible source for this information. The DEIR’s carbon presumptions are, therefore, not demonstrated as based on sound science.

**2. Fairfax has no forest inventory. The numbers are imaginary.**

The analysis is performed without a forest inventory. The inventory of the property is a complete guess. Such analyses are heavily sensitive to site, initial inventory, management history, forest age and hardwood composition. None of this information exists. The claims in the DEIR are therefore, not based on credible information or fact.

### **3. Growth estimates have been adjusted to produce favorable results.**

Even if the inventory “guesstimate” is correct, and even if the spreadsheet methods are based upon sound science, the authors of the DEIR have modified the spreadsheet to suit their own ends. They made the assumption that forest growth over the next century in the completely unmanaged 151-acre preserve would far exceed the growth in the sustainably managed forest<sup>1</sup>. If one runs the numbers in both models using the *same* growth rate, which is reasonable enough under a regime of sustainable forest management, the exact analysis that has been submitted to you actually demonstrates, as it should, that the vineyard results in a net carbon loss of tens of thousands of metric tons of CO<sub>2</sub>e over the 100-year modeling period. This is a logical conclusion that is supported by the numbers that have been submitted. Therefore Table 4.3 is invalid, is simply conjecture and CEQA requirements have not been achieved.

### **4. Other carbon pools are invalid and illogically presented.**

The DEIR analysis acknowledges that the “other carbon pool” loss of 24.58 Mg carbon per acre (90.2 Mg CO<sub>2</sub>e/ac) will occur on the 154-acre conversion area. This is primarily from the duff and litter and soil carbon layers. To confuse the matter, the DEIR goes on to suggest in Table 4-7 that the 100-year future live tree carbon sequestration rate in the 151-acre forest preserve will be almost 4 times that of the Sustainable Forest (1.73 vs. 0.468 C metric tons/acre), and that soil carbon sequestration in reserve forest is more than 250% that of sustainably managed forest (0.484 vs 0.197 C Mg/yr). Following this reasoning, the DEIR managed to come to the conclusion that, over the 100-year planning horizon, the vineyard proposal would actually be carbon positive relative to sustainable forest management of native redwood forest (one of the fastest growing forest types in North America). Of course this type of analysis defies any sort of logic. The forest stores carbon in tall trees while vineyards are more like shrub fields, part of the understory vegetation carbon pool. The DEIR cites the US Forest Service FIA Program science demonstrating that understory vegetation stores only 0.7% to 1% of the total forest carbon. Then the DEIR goes on to present numbers that appear to conclude that the vineyard plan, 50 percent of which forests are clearcut and then have their understory and litter carbon pools removed, and whose soils are subsequently ripped apart and which are then converted to shrub-like vineyards, actually sequesters more than sustainable forest management activities. This is not a credible conclusion, and it is contradicted based on the information provided.

The DEIR carbon analysis models a forest preserve, but the plan includes no prescription against harvesting trees remaining on the project site. The project plan simply seems to call for an “open space easement” on the 151-acre preserve. There is no “no harvest” provision in the easement. Therefore, there is nothing more than the hope that the forest would be managed to sequester carbon. This is not a valid baseline for analysis of environmental impact.

In short, the accuracy of the assertions in the DEIR speaks for itself. There is no consistent science at the heart of the numbers that have been presented. These numbers are all based on

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<sup>1</sup> See step 4 rows 6 to 12 in the “Inventory\_Growth\_Harvest” worksheet of Appendix R. The growth rates vary dramatically.

the notion that a dramatic increase in forest growth will occur in the 151-acre reserve forest, and that that increase will more than fully offset the deforestation. This deceptive growth assumption is at the heart of the forest carbon analysis but is not addressed anywhere in the DEIR. To further confuse any reviewers, the numbers presented in Appendix R are completely undocumented.

**5. The Forest Preserve is unsuited to viticulture .** Please take a moment to look at the “Revised Fairfax Conversion Vineyard Plan” on page 1-6 of the DEIR. The simple fact is that the 151-acre forest is being preserved because that area is almost uniformly very steep, out of the way, along watercourses, in legally required (archaeological or habitat) protection zones, or otherwise unsuited for viticulture. Even if the vineyard project were to be scrapped and the area is to become working forest, it is unlikely that these areas would be significantly harvested because of WLPZ, difficult access, habitat protection requirements, and other constraints.

The DEIR identifies “potentially significant impacts” to horkelia, Annapolis manzanita, Northern Spotted Owl, red-legged frog, yellow-legged frog, and migratory bird habitat, but those impacts are unmitigated. Unfortunately, any remaining habitat value of the 151-acre preserve would be much reduced because the habitat connectivity will be so fractured by the vineyard development plan.

**6. The 305-acre “Preserve/No-project” option.** This property is located in a valuable Sonoma coastal watershed at the edge of the heavily populated Bay Area. The locality has high scenic, ecological, recreational and tourism values. From an ecological and economic standpoint the highest and best use of the forest is arguably as redwood forest preserve rather than heavily harvested for forest products or converted to vineyard. Given the productivity of this land, I am not even sure that the 5 planned harvests spaced at 20-year intervals could, as a practical matter, even happen. The option to conserve the 305-acre forest as a restoration forest preserve should also be considered as a no-project alternative. Such a preserve would serve, rather than hinder, California’s legislated goals to substantially reduce GHG emissions by 2020. Using the proponents’ numbers, they have demonstrated that an estimated additional 98,305 metric tons of CO<sub>2</sub>e, above and beyond the vineyard option, could be sequestered in the coming century. In coastal Sonoma County it is not unlikely that public, non-profit, and private sources of conservation funding could be procured to create such a redwood forest preserve at Annapolis.

In summary, the project is poorly planned and highly disruptive in a sensitive coastal ecosystem that is obviously unsuited for vineyards. The carbon balance would be negative. The numbers in the DEIR are imaginary at best. The company that wrote this DEIR would perhaps have a better project plan had it requested the assistance of a professional forester, but it appears to be far too late for that.

Thank you for considering my concerns.

Sincerely,



Tom Gaman