July 2, 2008

# California Oak Foundation

Our mission EGENEE and perpetuate native oak woodlands Solano County Pasmirre Management

JUL 0 3 2003

Comment Letter #1

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Solano County Department of Resource Management, Planning Services Division ATTN: Michael Yankovich, Program Planning Manager

675 Texas Street, Suite 5500

Fairfield, CA 95433

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Dear Mr. Yankovich:

The California Oak Foundation (COF) appreciates the opportunity to comment on the Rockville Trails Estates project RDEIR. COF oak woodlands review has identified two California Environmental Quality Act (CEQA) deficiencies in the RDEIR: (1) failure to recognize or comply with Public Resources Code (PRC) §21083.4, county oak woodlands mitigation standards; (2) CEQA oak woodland biological reviews must analyze and mitigate for substantial carbon dioxide (CO2) "biological emissions," due to lost oak woodland sequestration capacity and fuelwood combustion releases, when determining significant effects and proportional mitigation measures. The Rockville RDEIR fails to do so.

Public Resources Code \$21083.4

RDEIR: "Oak woodland and savanna occupies approximately 983 acres of the site, forming dense to open stands dominated by blue oak... Of the total estimated 4,490 trees on the site in the tree impact analysis, an estimated 740 trees would be removed representing approximately 16 percent of the trees on the site...at least 137 of these are estimated to be trees with trunk diameters of 18 inches or greater, representing about 19 percent of the trees to be removed and 3 percent of the total trees on the site." (Pages IV. C-11, C-58 and C-59)

Comment: In a June 27, 2007 letter COF advised the Solano County Board of Supervisors that the Rockville Trails Estates FEIR was in violation of PRC §21083.4 oak woodlands mitigation criteria. Regrettably, one-year later the Rockville biological resources regulatory setting review has again failed to acknowledge or apply PRC §21083.4. Nowhere in the RDEIR is there a cogent discussion or description of how Rockville will implement PRC \$21083.4 to reduce project oak woodland impacts to less than significant.

Rockville violates PRC \$21083.4 mitigation standards by:

Proposing mitigation for oak trees 6 inches or greater in diameter at breast height (dbh). PRC §21083.4 requires mitigation for all oak 5 inches or more dbh.





Proposing 100 percent of project oak woodlands mitigation by planting trees. PRC §21083.4 limits tree planting to no more than 50 percent of oak woodlands mitigation.

Proposing five years of maintenance for planted oaks. PRC §21083.4 requires seven years maintenance for planted trees and any planted trees that become diseased or die during this period must be replaced.

Proposing a replacement ratio of 1:1 for removed oaks less than 18 inches dbh. PRC §21083.4 requires that an "appropriate number of trees" be planted and this absurdly low replacement ratio has absolutely no chance of numerically compensating over time for the removed oaks or their habitat values.

### 2 (cont'd)

#### Air Quality

Background: The current carbon dioxide contribution to global warming is in part a byproduct of mankind's conversion of the Earth's forest cover to non-forest land use: "In the last 8,000 years about 45% of the Earth's original forest cover has disappeared, cleared mostly during the past century" (Smithsonian 2003). Continuing "deforestation accounts for about 20% of the carbon dioxide spewed into the atmosphere each year" (Wall Street Journal 2008). According to the Intergovernmental Panel on Climate Change, "Carbon dioxide is the most important anthropogenic greenhouse gas... The global increases in CO2 concentration are due primarily to fossil fuel use and land-use change" (2007).

Based on the latest University of California figures (2007), COF estimates that since 1990 California has converted 325,000 acres of oak woodlands to non-forest use. This means in California there are substantially fewer acres of oak forest to help reduce state CO2 emissions by 2020 to 1990 levels as required by Assembly Bill 32. Additionally, the escalating deforestation of oak woodlands (25,000 acres annually) will make it that much more difficult and expensive to meet the AB 32 goal of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050.

The California Climate Change Center has reported that "There is substantial evidence that temperatures in California are projected to rise 4.7 to 10.5 degrees Fahrenheit by the end of the century [and] temperatures can increase air quality problems" (2007). A University of California study examining the effects of California temperature increases on blue and valley oaks "found that the areas of the state where the climate is suitable for these species to grow will shift northward and could shrink to nearly half their current size as a result of global warming" (2005). Thus, the more that oak woodlands are converted to non-forest use, the greater the rise in California temperatures and the greater the temperature increases, the faster oaks are extrapolated from the California landscape.

The publication "Oaks 2040: The Status and Future of Oaks in California" (2006) estimates that up to 750,000 acres of oak resources are at risk of conversion to non-forest use by 2040 and "Oaks 2040: Carbon Resources in California Oak Woodlands" (2008) found that "California oak woodlands and forests could sequester a billion tons of carbon [and] up to 33 million tons of sequestered carbon are at risk [by 2040] of entering the atmosphere should development processes eliminate these oak woodlands and forests, and their associated carbon pools." (Copies of each publication enclosed.)

#### CEOA, Carbon Dioxide and Climate Change

RDEIR: "It is the conclusion of this green house gas [GHG] analysis that any effort to quantify this effect in the absence of published or otherwise adopted significance thresholds would be speculative...Trees are required to be planted within the wildlife movement corridors, on private lots and in common areas, including the neighborhood park....Furthermore, the project development standards incorporate a range of refined measures designed to reduce energy usage and the consumption of GHGs [fossil fuels]." (Pages IV. B-24 and 25)

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Comment: These RDEIR assertions are contrary to scientific fact and state law. There is nothing speculative about the California Forest Protocol, which was initiated by Senate Bill 812 in 2002, adopted by the California Climate Action Registry in 2005, incorporated into Assembly Bill 32 in 2006, recognized by Senate Bill 97 in 2007 and approved by the Air Resources Board (ARB) on October 25, 2007. This Forest Protocol designates the conversion of oak woodlands to non-forest use to be CO2 "biological emissions" due to lost oak woodland sequestration capacity and fuelwood combustion releases. The specific methodology for measuring oak woodland carbon sequestration or release are described in the Forest Protocol.

Rockville's proposed tree planting offers negligible CO2 mitigation value relative to the loss of the existing mature oak woodlands, including a disproportionate number of exceptionally large oaks. In fact, planted oaks sequester little CO2 until they are at least 20 years old (California Climate Action Team 2008). This point is particularly germane to Rockville because slow-growing blue oak trees will be most impacted by the project. In the parlance of climate change, it is infeasible for Rockville to plant enough mitigation oaks to be anywhere near "carbon neutral" over a 100-year period.

Project design features that lessen CO2 impacts from fossil fuel use do nothing to mitigate CO2 biological emissions due to a land-use change that results in the loss of oak woodland sequestration capacity and CO2 releases from the burning of oak fuelwood. At best, these "refined measures" *only moderate* the increase in new CO2 emissions; existing oak woodlands *actually reduce* CO2 in the atmosphere.

RDEIR: "CEQA also requires that the Lead Agency evaluate potential environmental effects based to the fullest extent possible on scientific and factual data (CEQA Guidelines §15064b). In the absence of defined thresholds, significance conclusions must be based on substantial evidence, which includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts (CEQA Guidelines §15064f)." (Page B-17)

CEQA review doesn't require specific CO2 regulations; CEQA review requires analysis and proportional mitigation for "significant effects on the environment [including] a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including...air" (CEQA Guidelines §15382). The scientific evidence is overwhelming that substantial CO2 biological emissions potentially occur from the conversion of Rockville oak woodlands to non-forest use.

ARB CO2 forest conservation is defined as those "Specific actions that prevent the conversion of native forest to a non-forest use, i.e., residential or commercial development or agriculture." Conversely, the conversion of oak woodlands to non-forest use represents a biological emission subject to CEQA analysis and mitigation. The Forest Protocol establishes the air quality criteria to be used to measure oak woodland biological emissions for CEQA review: Live tree biomass (including roots), standing dead tree biomass and wood lying on the ground.

CEQA CO2 questions to be answered include: (1) how much potential CO2 sequestration over the next 100 years will be lost due to impacts to live native trees three (3) inches or greater in diameter at breast height; (2) how much sequestered CO2 will be released if the live trees, standing dead trees or woody debris are burned? Please note COF has the professional capability to calculate for any oak woodlands conversion both the amount of CO2 currently sequestered and the CO2 biological emissions if those woodlands are impacted.

#### Conclusion

Under CEQA the only feasible and proportional way to concurrently mitigate significant oak woodland wildlife habitat and CO2 emission cumulative effects is to preserve off-site, by acquisition or funding, a perpetual conservation easement equivalent in acreage and ecological function to the woodlands impacted on the project site.

## **Comment Letter #1 (cont'd)**

The Rockville declaration that the proposed mitigation measures reduce oak woodland effects to less than significant is specious. Moreover, the RDEIR has willfully disregarded Public Resources Code §21083.4 mitigation standards and failed to analyze substantial CO2 biological emissions due to Rockville's significant impacts to oak woodlands. Until the RDEIR complies with PRC §21083.4 and analyzes CO2 biological emissions resulting from Rockville oak woodland effects, the California Oak Foundation objects to approval of the project and adoption of the RDEIR.

Respectfully,

Janet S. Cobb, President California Oak Foundation

attachments (3)

#### Forest Protocol Key Terms

Biological emissions. For the purposes of the forest protocol, biological emissions are GHG emissions that are released directly from forest biomass, both live and dead, including forest soils.

Biomass: The total mass of living organisms in a given area or volume; recently dead plant material is often included as dead biomass.

Bole: A trunk or main stem of a tree. For the purposes of the Protocol, any tree bole with a minimum diameter of three inches should be included in the inventory to estimate carbon stocks.

Carbon pool. A reservoir that has the ability to accumulate and store carbon or release carbon. In the case of forests, a carbon pool is the forest biomass, which can be subdivided into smaller pools. These pools may include above-ground or below-ground biomass or roots, litter, soil, bole, branches and leaves, among others.

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