

September 15, 2014

Napa County Planning, Building and Environmental Services Department
1195 Third Street, 2nd Floor
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Re: Walt Ranch Project DEIR

Kelli Cahill, Planner III:

The Quercus Group appreciates the opportunity to comment on the Walt Ranch project DEIR. Unfortunately, our review of the DEIR finds California Environmental Quality Act (CEQA) errors of omission and commission concerning forest resources.

The DEIR forest land¹ conversion greenhouse gas (GHG) emissions analysis is built on three shaky pillars, unsupported by science, fact and law:

Pillar 1: Tree removal carbon dioxide emissions totaling 105,021 metric tonnes (MT) CO₂e.

The DEIR contention that project deforestation will result in only biomass carbon dioxide (CO₂) emissions, with no associated methane (CH₄) and nitrous oxide (N₂O) emissions, is unsupported by science or fact. In addition to CO₂ emissions, the decomposition of biomass does in all cases result in CH₄ emissions² and the combustion of biomass does in all cases result in CH₄ and N₂O emissions³ (Exhibit A). A CEQA oak woodlands GHG emissions impact analysis requires estimations for both the direct effect from loss of carbon sequestration and the indirect effect due to CO₂, CH₄ and N₂O emissions associated with oak forest biomass disposal.

¹ Oak woodlands are defined as "forest land" by the Public Resources Code, Section 12220(g)(l). This section is referenced in the 2010 CEQA GHG amendments, Appendix G forest resources checklist.

² "Anaerobic digestion, chemical process in which organic matter is broken down by microorganisms in the absence of oxygen, which results in the generation of carbon dioxide (CO₂) and methane (CH₄)....Sugars, starches, and cellulose produce approximately equal amounts of methane and carbon dioxide." Encyclopædia Britannica (2013). <http://www.britannica.com/EBchecked/topic/22310/anaerobic-digestion>

³ "[T]he combustion of biomass does in all cases result in net additions of CH₄ and N₂O to the atmosphere, and therefore emissions of these two greenhouse gases as a result of biomass combustion should be accounted for in emission inventories under Scope 1" (at p. 94). World Resources Institute/World Business Council for Sustainable Development (2005). http://www.ghgprotocol.org/files/ghgp/tools/Stationary_Combustion_Guidance_final.pdf

This disagreement isn't about different GHG emissions methodologies arriving at disparate outcomes; to accept the DEIR oak woodlands biogenic emissions methodology is to repudiate basic chemistry principles. Two examples serve to illustrate the point:

- A Napa County oak tree is felled and left on the ground to decompose over time. According to the DEIR this tree will emit X amount of carbon dioxide over time. Science says this tree will emit X amount of carbon dioxide and X amount of methane. In fact, over time the tree will release CO₂ and CH₄ emissions in roughly equal amounts by volume.
- The Exhibit A chart illustrates the relative CO₂, CH₄ and N₂O emission effects from common methods of biomass disposal and their peak emissions impact. According to the DEIR GHG emissions methodology all the disposal processes should show the same amount of peak emissions. That the disposal methods have different emission peaks reflects the varying amounts of methane and nitrous oxide emissions generated by each disposal process.

Notably, the DEIR oak woodlands conversion focus on tree removal carbon dioxide emissions is also inconsistent with vineyard project GHG emissions standards previously applied by the county. The 2011 Leff Vineyard project was the first approved with an Erosion Control Plan that addressed forest land conversion biogenic GHG emissions. Leff measured all oak woodlands conversion CO₂, CH₄ and N₂O emissions, including for trees, associated flora and soil.

Pillar 2: Preservation of 248 acres of woodland resulting in a 27,528 MT CO₂e reduction credit.

A promise to not cut more trees doesn't reduce the GHG emission effects from the trees that are being cut. The 248 acres of preserved trees aren't suddenly going to begin growing faster and sequester more carbon to reduce removal GHG emission impacts. The 27,528 MT emissions reduction credit (26 percent) claimed by the DEIR isn't the product of a new source of carbon sequestration but an existing carbon sink. The DEIR offers no science or fact to support the unknown but apparently miraculous process by which 248 acres of existing trees are going to actually reduce the 105,021 MT of lost carbon sequestration and the significant biomass disposal GHG emissions. This DEIR proposal amounts to nothing more than mitigation fool's gold.

Pillar 3: Conformity with the Solano County Climate Action Plan (CAP) standards reduces forest land biogenic GHG emissions to less than significant.

DEIR tiering to the Solano County CAP standards for biogenic GHG emissions mitigation purposes is unsupported by science and fact. The DEIR acknowledges that the Bay Area Air Quality Management District (BAAQMD) GHG thresholds of significance exclude the analysis of direct and indirect forest land conversion biogenic emissions. Likewise, Solano County's CAP has no specific CEQA prescriptions to address deforestation biogenic emissions, including in the construction emissions standard. This forestry omission is understandable given that forest land regulation is the purview of the State of California, not the BAAQMD or Solano County. The state spoke directly

to the issue of forest land conversion emissions in the 2010 CEQA Guidelines GHG Amendments. What qualifies a non-local CAP with no biogenic emissions standards to serve as a Napa County GHG threshold of significance in making a finding that project oak woodland emissions are less than significant?

Napa County is currently restarting its CAP planning process and seeking public input. There has been no Napa County public discussion regarding the correctness and validity of substituting the Solano County CAP standards in lieu of locally vetted planning measures. Solano County GHG best management practices and policy goals are not a substitute for CEQA project oak woodlands conversion analysis/mitigation based on science and fact.

Summary

It is the expert opinion of the Quercus Group that project biogenic GHG emissions will be at least double those projected by the DEIR. Moreover, the DEIR GHG emissions mitigation fails to mitigate a single molecule of project forest land biogenic emissions.

Substantial evidence has been presented that project biogenic GHG emissions due to forest land conversion will result in potentially significant environmental impacts that have not been sufficiently analyzed or feasibly mitigated. The DEIR has not made *“a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project”* (CEQA Guidelines, § 15064.4(a)). Therefore the DEIR is deficient as an informational document, in that it fails to apprise decision-makers/public of the full range and intensity of the adverse GHG emission effects on the environment that may reasonably be expected if the project is approved.

Respectfully,



Ron Cowan, Principal
Quercus Group

attachment

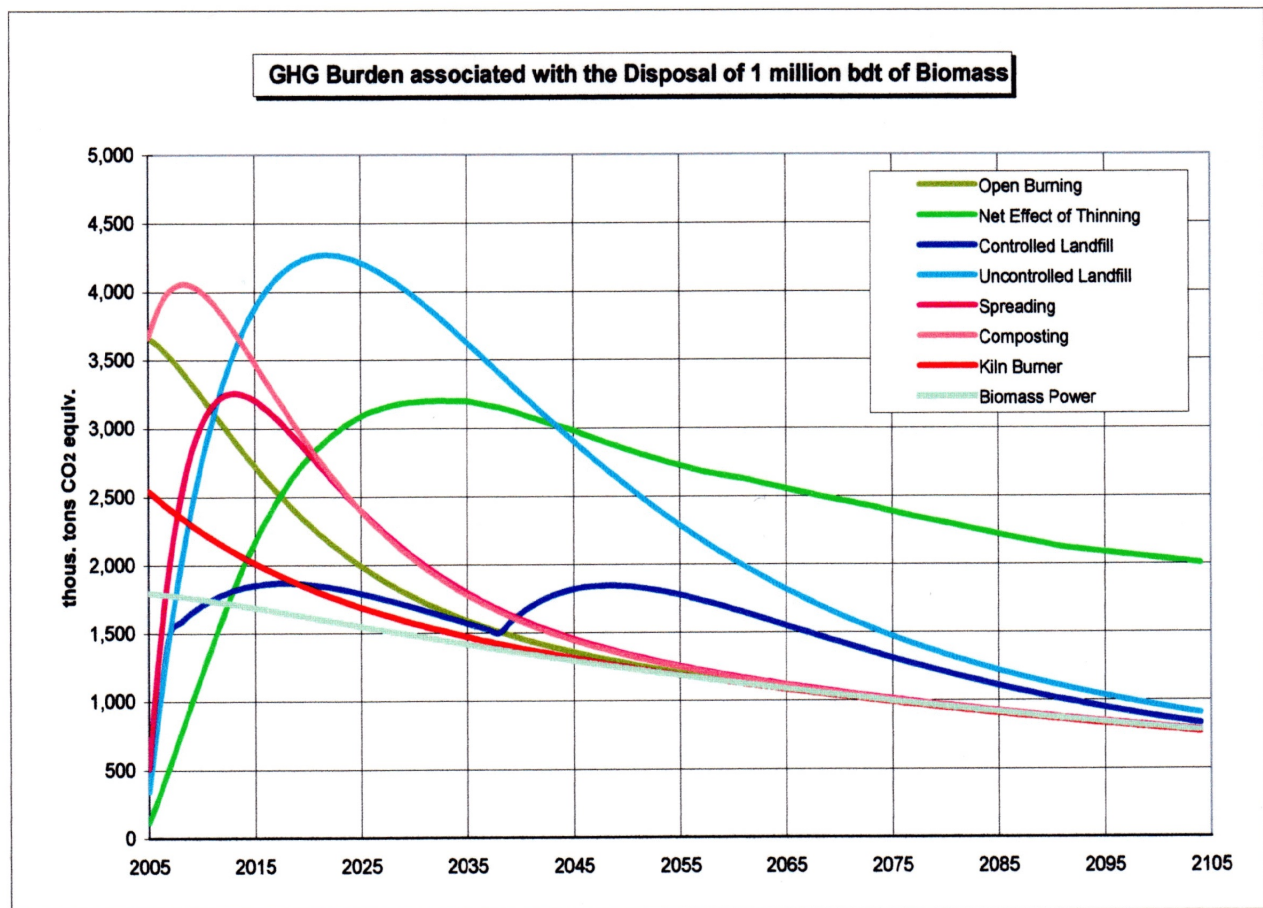
Exhibit A

Vineyard Conversion Biomass Disposal Greenhouse Gas Emissions

The following chart illustrates the relative biogenic GHG emission effects from common methods of vegetation (biomass) disposal¹. However, for a variety of reasons these chart values are too unrefined to be applied for project site-specific biogenic GHG emissions analysis.

Uncontrolled landfill disposal produces the greatest biomass GHG emissions followed by composting, open burning, mulching, forest thinning, firewood burning, controlled landfills and biomass power². This GHG emissions hierarchy reflects the various amounts of methane and nitrous oxide emissions generated by each disposal process.

Terminology: Net effect of thinning emissions apply to forest thinning emissions; Spreading emissions are equivalent to mulching emissions and Kiln Burner emissions are equivalent to fireplace burning emissions.



Graphic: Gregory Morris, PhD. *Bioenergy and Greenhouse Gases*. Published by Pacific Institute (2008).

¹ One bone dry ton (bdt) is a volume of wood chips (or other bulk material) that would weigh one ton (2000 pounds, or 0.9072 metric tons) if all the moisture content was removed.

² Biomass power emissions do not include methane and nitrous oxide emissions.