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October 14, 2009

Department of Conservation, Development and Planning
County of Napa
1195 Third Street, Suite 210
Napa, CA 94599-3092
Attn: Kelli Felker

Re: Dunphy Vineyard Conversion Project, Erosion Control Plan # 07-00790-ECPA; Mitigated Negative Declaration

Dear Ms. Felker:

This office represents Earth Defense for the Environment Now ("EDEN") with respect to the **Dunphy Vineyard Conversion Project, Erosion Control Plan # 07-00790-ECPA and Mitigated Negative Declaration**. I write today to submit the following comments on EDEN's behalf. EDEN objects to the approval of this project and its Erosion Control Plan on the following grounds.

This letter attaches as Exhibit 13 and incorporates by reference a letter dated October 12, 2009 from hydrologist Dennis Jackson. This letter also attaches as Exhibit 16 and incorporates by reference a letter dated October 13, 2009 from registered professional forester Tom Gaman.

1. AN EIR IS REQUIRED TO ASSESS POTENTIALLY SIGNIFICANT WATERSHED IMPACTS.

a. Legal Framework for Assessing the Significance of Cumulative Impacts.

It is well settled that where a project will exacerbate existing significant impacts, the project's cumulative impacts must be recognized as significant for purposes of requiring preparation of an EIR. Thus, in a case involving air pollution in the Central Valley, the Court of Appeal ruled the EIR prepared for a co-generation plant was inadequate because it failed to judge the significance of project impacts as a function of the project's small incremental impact in combination with existing significant impacts, stating:

> Appellants contend under the theory advanced in the EIR whenever an agency determines impacts specific to a particular project are not significant, corresponding cumulative impacts cannot be considered significant because the "incremental effects" of the individual project cannot be "considerable." They contend in assessing significance the EIR focuses upon the ratio between the project's impacts and the

> overall problem, contrary to the intent of CEQA. GWF contends the cumulative impacts analysis properly focuses upon the individual project's effects rather than the combined effects. According to GWF, the standard is defined by the use of the word "incremental," which means the analysis measures the amount by which the individual project adds to air quality problems, and since the project's emissions are relatively minor when compared with other sources, the EIR properly concluded the project would have no significant impact on air quality.
>
> We must interpret the Guidelines to afford the fullest possible protection to the environment. (*Friends of Mammoth v. Board of Supervisors* (1972) 8 Cal.3d 247, 259-260 [104 Cal.Rptr. 761, 502 P.2d 1049].) One commentator has addressed the purpose of the cumulative impacts analysis: "One of the most important environmental lessons evident from past experience is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant, assuming threatening dimensions only when considered in light of the other sources with which they interact. ...
>
> "CEQA has responded to this problem of incremental environmental degradation by requiring analysis of cumulative impacts. Because of the critical nature of this concern, courts have been receptive to claims that environmental documents paid insufficient attention to cumulative impacts. ...
>
> "This judicial concern often is reinforced by the results of cumulative environmental analysis; the outcome may appear startling once the nature of the cumulative impact problem has been grasped." (Selmi, *The Judicial Development of the California Environmental Quality Act* (1984) 18 U.C. Davis L. Rev. 197, 244, fn. omitted.)
>
> We agree with the foregoing assessment of a cumulative impacts analysis. We find the analysis used in the EIR and urged by GWF avoids analyzing the severity of the problem and allows the approval of projects which, when taken in isolation, appear insignificant, but when viewed together, appear startling. Under GWF's "ratio" theory, the greater the over-all problem, the less significance a project has in a cumulative impacts analysis. We conclude the standard for a cumulative impacts analysis is defined by the use of the term "collectively significant" in Guidelines section 15355 and the analysis must assess the collective or combined effect of energy development. The EIR improperly focused upon the individual project's relative effects and omitted facts relevant to an analysis of the collective effect this and other sources will have upon air quality.

(*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692, 720-721.)

A more recent decision reaffirmed this standard for assessing the significance of cumulative impacts. In *Communities for a Better Environment v. California Resources Agency* ("*Communities* ") (2002) 103 Cal. App. 4th 98, the Court of Appeal held invalid a new CEQA Guideline providing

that "An EIR may determine that a project's contribution to a significant cumulative impact is *de minimis* and thus is not significant." The Court explained that the Guideline "would turn cumulative impact analysis on its head by diminishing the need to do a cumulative impact analysis as the cumulative impact problem worsens" because "the *de minimis* approach ...compares the incremental effect of the proposed project against the collective cumulative impact of all relevant projects." (*Id*. at p. 118.)

The Court in *Communities* also noted that:

> "[T]he relevant question"... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether "any additional amount" of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] This does not mean, however, that *any* additional effect in a nonattainment area for that effect *necessarily* creates a significant cumulative impact; the "one [additional] molecule rule" is not the law. [footnote omitted] Moreover, the basic approach set forth in Guidelines section 15064, subdivision (i)(1) seems sound--that is, in assessing whether a cumulative effect requires an EIR, the lead agency shall consider whether the cumulative impact is significant and whether the proposed project's incremental effects are cumulatively considerable.... In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project's contribution to cumulative impacts as significant. [footnote omitted]

(*Id*. at p. 120.) [1]

While the Courts have not explained exactly how many "molecules" are required for an addition to an existing significant effect to be considered "cumulatively considerable," they have stressed the importance of determining significance in the context of the specific environmental setting of the project. *(Kings County Farm Bureau v. City of Hanford*, *supra*, 221 Cal. App. 3d at p. 718 ["The significance of an activity depends upon the setting."].)[2]

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[1]CEQA Guidelines § 15064(i)(1) provides: "When assessing whether a cumulative effect requires an EIR, the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable. An EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when *viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects*." (emphasis added); *see also* CEQA Guidelines § 15065(c) regarding mandatory finding of significance for "environmental effects which are individually limited but cumulatively considerable".

[2]"The point is not that, in terms of ozone levels, the proposed Hanford project will result in the ultimate collapse of the environment into which it is to be placed. The significance of an activity

Indeed, as described in more detail below, the Napa River watershed is "impaired" due to excessive sediment loading, its anadromous fish species are either extirpated (coho) or federally threatened (steelhead), and the Regional Water Quality Control Board has recommended that no new sediment sources be created. In the context of this setting, CEQA requires, at a minimum, an EIR to determine exactly to what extent this project will create new sources of sediment.

b. Environmental Setting for Assessing the Significance of Cumulative Sediment Impacts.

Since Napa County adopted its Hillside Ordinance in 1991 (requiring Erosion Control Plans for conversion projects such as this one), there have been drastic changes in the environmental setting in the Napa River drainage and surrounding region. Populations and habitat conditions for coho salmon and steelhead in this region have declined to the point where, in 1996 (coho) and 1997 (steelhead), the National Marine Fisheries Service ("NMFS") listed local Evolutionarily Significant Units ("ESUs") of these species as "threatened" under the federal Endangered Species Act. (*See* Exhibit 2 for coho 'threatened' decision; and Exhibit 3 for steelhead 'threatened' decision.) This occurred in the context of the Board's identification of the Napa River as "water quality limited" under section 303(d) of the federal Clean Water Act due to excessive sedimentation and nutrient loading.

The identification of the Napa River as impaired due to sediment under section 303(d) of the Clean Water Act requires the state of California to prepare and adopt a Total Maximum Daily Load ("TMDL") for sediment in the Napa river drainage.

On June 14, 2002, the San Francisco Bay Regional Water Quality Control Board ("Regional Water Board") released the Napa River Basin Limiting Factors Analysis. (*See* Exhibit 4.) This report is Phase 1 of the TMDL study for the Napa River Basin. According to the Phase 1 report, sedimentation of gravel stream beds is reducing the survival of steelhead fry by 50% or more and additional study is required in order to further understand the sediment problems plaguing the Napa River Basin. In the meantime, the Phase 1 report recommends that "opportunities to prevent increased delivery of sediment to channels, and preferably reduce sediment delivery, should be pursued." (Exhibit 4, p. ES-35.)

On June 28, 2005 the Regional Water Board issued its Napa River Sediment Total Maximum Daily Load Draft Technical Report ("Draft Technical Report"). (*See* Exhibit 1.) This report confirms and expands upon the conclusions of the Phase 1 report. Key findings of the Draft Technical Report

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depends upon the setting. (Guidelines, § 15064, subd. (b).) The relevant question to be addressed in the EIR is not the relative amount of precursors emitted by the project when compared with preexisting emissions, but whether any additional amount of precursor emissions should be considered significant in light of the serious nature of the ozone problems in this air basin." *Kings County Farm Bureau v. City of Hanford*, *supra*, 221 Cal. App. 3d at 718.

include:

- "Channel incision, which occurs in Napa River and lower reaches of its tributaries, has greatly reduced the quantity and quality of spawning and rearing habitat for salmon, and appears to be the primary factor limiting chinook salmon reproductive success and smolt survival undercurrent conditions (Stillwater Sciences and Dietrich, 2002). Excessive amounts of fine sediment deposited at potential spawning sites for salmon and/or steelhead in Napa River and its tributaries causes high rates of egg and larval mortality during incubation. Although poor spawning habitat quality does not currently appear to be a primary factor limiting for steelhead, high mortality at during egg incubation may further depress what appears to be a very small run. Other factors including poor flow persistence during the dry season and poor habitat access, appear to be the primary factors that limit steelhead productivity and survival in the Napa River watershed at present (Stillwater Sciences, 2002)[3]. We conclude that progress towards resolution of all factors limiting steelhead productivity and survival in the Napa River watershed is needed to conserve and recover steelhead populations. Therefore, we recommend actions to address sediment and additional management and research actions to address the above limiting factors, as a component of the sediment TMDL implementation plan." (Exhibit 1, p. 3.)

- "Channel incision is a controllable water quality factor that results in a violation of the narrative water quality objective for population and community ecology (Table 1)." (Exhibit 1, p. 7.)

- The narrative water quality objective for population and community ecology is, "The health and life history characteristics of aquatic organisms in water affected by controllable water quality factors shall not differ significantly from those for the same waters on areas unaffected by controllable water quality factors." (Exhibit 1, p. 6.)

- "Sediment loads vary depending on geologic terrain, land uses, and dams." (Exhibit 1, p. 13.)

- "More than half of all sediment delivered to channels comes from grazing, vineyards, roads, and erosion of the bed and banks of Napa River and lower tributary reaches." (Exhibit 1, p. 13.)

- "30% of the watershed drains into dams, capturing a significant fraction of all sediment input to channels, nevertheless fine sediment load remains substantially elevated in Napa River." (Exhibit 1, p. 13.)

- "In addition to being a significant sediment source, erosion of the river's bed and

[3]Attached to these Comments as Exhibit 32.

banks is degrading aquatic habitat." (Exhibit 1, p. 13.)

- "Where hillside vineyards replace mature mixed evergreen forests, peak runoff rate and volume from the vineyard site may be increased substantially because mature conifers intercept a significant proportion of the total rainfall in a storm, greatly reducing the rate of delivery (and in some cases total amount) of rainfall that is input into the soil. Furthermore, if vineyard development involves installation of subsurface drainage pipes, more storm runoff, at a faster rate, may be discharged off-site than under natural conditions." (Exhibit 1, p. 18.)

- "Sediment input from sheet wash erosion caused by grazing and/or vineyards may contribute a few hundred or more tonnes/km2/yr in the soft sandstone and clayey rock, and hard lava flow terrains." (Exhibit 1, p. 43.)

- "Four significant categories of human caused sediment sources are: 1) grazing lands, **2) vineyards**, 3) roads, and 4) erosion of the Napa River bed and banks." (Exhibit 1, p. 46 (emphasis added).)

- "To protect chinook salmon and steelhead, rates of fine sediment supply and channel incision must be reduced in a manner that enhances aquatic habitat conditions." (Exhibit 1, p. 55.)

Several additional reports prepared specifically to assess impacts of vineyard conversions in the Napa Valley describe the causes of these changes, including reports by Dr. Robert Curry (Exhibit 5, *Napa Valley Hillside Vineyards: Cumulative Effects of Conversion of Upland Woodlands and Chaparral to Vineyards*) and Dr. Robert Abbot and Dr. Robert Coats (Exhibit 6, *Expert Witness Report: Cumulative Impacts on Fisheries Resources from Intensive Viticulture Practices in Napa County*). Dr. Abbot and Dr. Coats demonstrate that existing significant impacts on anadromous fish species in the Napa River drainage are not adequately addressed by the standard review procedures for new hillside vineyards.

Standard erosion control planning for hillside projects, including vineyards on slopes over 5% and non-agricultural projects on slopes over 15%, in the Napa Valley, as regulated by the Napa County Planning Department and supervised by the Resources Conservation District, focuses on measures to prevent erosion of soils from hillside vineyard sites. While these efforts have had some degree of success, the standard approach fails to adequately account for increases in runoff due to project induced changes in the moisture infiltration capacity of the project soils. As explained by Dr. Curry, increases in runoff peak flows have the potential to generate downstream sedimentation by breaking down and sweeping away the bed and banks of streams below the project site, destroying both riparian and fish habitat. The mechanisms of this impact are explained in more detail in the December 2000 report (Exhibit 5) prepared by Dr. Robert Curry.

c. This Project's Contribution to Existing Significant Cumulative Runoff, Channel Incision and Sediment Impacts Is Cumulatively Considerable.

As described in the attached letter from Mr. Jackson (Exhibit 14), this project has significant cumulative impacts on runoff, channel incision and sediment. Therefore, preparation of an EIR is required.

2. AN EIR IS REQUIRED TO ASSESS POTENTIALLY SIGNIFICANT IMPACTS ON GROUNDWATER AVAILABILITY.

a. The MND Fails to Adequately Describe the Environmental Setting for Purposes of Evaluating Impacts on Groundwater Resources.

The MND concludes the Project will have no significant adverse effects on groundwater resources. This conclusion is unwarranted, however, because as described in more detail in the report by Dennis Jackson (Exhibit 13), the MND fails to adequately describe the environmental setting for purposes of evaluating impacts on groundwater resources.

b. The County's Fair Use Thresholds Are Not Appropriate Criteria of Significance for Groundwater Impacts.

The County's "fair use" thresholds are set forth in the County Planning Department's *Water Availability Analysis: Policy Report* dated August 2003, a copy of which is attached as Exhibit 7. This document describes the procedure for obtaining a groundwater permit and establishes "thresholds" for use of groundwater in each basin. If a new water use is below this threshold, the County assumes that the use will not have a significant adverse effect on the aquifer.

In the area where this project is located, the threshold is deemed to be 1 acre foot per acre per year for each acre of land overlying the aquifer and 0.5 acre feet per acre per year for each acre of land overlying the gradient up-slope of the aquifer (i.e., hillside area). Since the property consists of hillside land, the County's assumed "threshold" for the property is 0.5 acre feet per acre per year times 75.5 acres, or 37.75 acre feet per year.

This threshold is not an appropriate criterion for determining whether the project's impacts on groundwater are significant for several reasons.

- First, it is not based on any actual data relating to the availability or use of groundwater in the area. The County's 2003 Policy report explains that the "threshold" number for the Valley Floor Area was "determined in 1991 in the form of a staff report to the Board of Supervisors" and "was established as the expected demand an average vineyard would have." (Exhibit 7.)

The 1991 staff report to the Board of Supervisors notes that no "extensive groundwater studies" have been conducted in many areas of the County. (Exhibit 11, p. 2.) The 1991 staff report summarizes the findings in the January 1991 Water Resources Study for the Napa County Region (Napa County Flood Control and Water Conservation District), a copy of which is attached as Exhibit 12.

● Second, the County's threshold does not take into account the fact that many previous owners may be using more than their "threshold" amount of water. As a result, later owners may not be able to use their "threshold" amount, or as in this case, any amount of groundwater, without causing or exacerbating existing significant effects. The DEIR presents no information on the use of groundwater by other property owners in the area.

● Third, existing groundwater supplies in the Napa Valley area are already being depleted, yet the County's thresholds assume, without any empirical foundation, that groundwater extraction and recharge are in balance. The April 7, 1999 Memorandum from Napa County Planning Department to the Planning Commission regarding a General Plan Amendment relating to groundwater use and the proposed Napa County groundwater ordinance states:

> The 1991 study also develops short and long-term projections of water needs among users and regions in Napa County using these figures to balance water needs and supplies for the period 1990 through 2020. The results of this balance reveal substantial long-term inadequacies in supply throughout the county's subareas, although admittedly at present some areas have a short-term surplus. From this study it is reasonable to conclude that as the county's water needs increase in the future, increases in agricultural and rural uses are likely to eliminate any existing groundwater surplus. This change from surplus to deficit is likely to be far more pronounced and occur sooner rather than later if increased municipal and industrial demands are also satisfied by using groundwater.... The 1993 Report confirmed the 1991 Study's results and projected a growing deficiency in the overall county water supply. The Report identified shortfalls of 10,900 acre feet by the year 2000 which would increase to 18,600 acre feet by 2020 and 23,000 acre feet by 2030."

(Exhibit 9, p. 2.) Similarly, the January 19, 1993 Memorandum from the Napa County Water Advisory Committee to the Napa County Board of Supervisors re: Report of the Water Advisory Committee, referenced in the 1999 staff report above and attached hereto as Exhibit 10, notes that "Increased utilization of groundwater as a source of supply can have severe detrimental effects on the rural residential community." In sum, the "thresholds" are not based on any empirical analysis of actual groundwater supply or availability.

3. AN EIR IS REQUIRED TO ASSESS POTENTIALLY SIGNIFICANT IMPACTS ON OAK WOODLANDS AND WILDLIFE HABITAT.

a. Oak Woodlands Provide Many Benefits to Wildlife.

Numerous studies have shown that hardwood ecosystems support an unusually high amount of wildlife, approximately 331 breeding species, the largest number of any habitat type in California. (*See* Exhibit 39, pp. 2-3, 34.) For example, the 1986 Report prepared for the California Board of Forestry states:

> These habitats support a rich wildlife fauna because they are complex and diverse,

> with many plant species and layers, providing many habitats and niches. This layering, or "vertical edge," is the most important element contributing to the diversity of these hardwood communities. [...] Gophers, moles, and mushrooms occupy the subsurface layer; grasses, forbs, duff, mulch, and litter clothe the forest floor and support mice, towhees, skunks and many other species. Subcanopy layers (e.g., shrubs) vary in number and support representative wildlife, especially birds. The canopy itself may be layered, and supports its own characteristic fauna. Some wildlife species are restricted to one layer; some use all. Not all hardwood stands have as many layers as a mature stand, but even a lone oak tree contains parts of several layers, and is, by itself, a rich habitat element."

(*Id.* at 34.) The Report also summarizes how oak woodlands provide a rich source of feeding for wildlife species:

> Martin et. al. (1951), in their classic study of wildlife food habits in the United States, found that oaks were fed upon by 96 species of wildlife, more than any other plant group. Wildlife browse leaves, twigs and flowers of oak, gnaw on bark and tender wood, and eat acorns, galls, lichens and mistletoe. Predators catch prey that live in and on oak trees. The list of plant foods, predators, and prey expands rapidly if we consider the entire oak stand or forest, not just individual trees. Associated tree species, shrubs, grasses, forbs, mushrooms and other fungi, all contribute to the rich feeding network provided by oak environments. Verner (1980) listed 45 species of birds that obtain insects from oak foliage, twigs, bark or wood; 9 species that catch aerial insects by launching from perches in oaks; 3 species that eat sap; and 2 species that eat the berries of mistletoe growing in oaks. Moreover, hawks and owls perch in oak trees to search for prey.

(*Id.* at 36). The most important single food supplied by oaks are acorns, which are considered to be as important as any forest wildlife food in the United States. (*Id.*) Acorns are an ideal food, providing rich stores of fat and carbohydrates in the fall when wildlife species in California strive to build extra fat stores to survive the winter. Many California species are almost wholly dependant on seasonal supplies of acorns, including deer, black bear, wild pig, western grey squirrel, wild turkey, wood duck, and acorn woodpecker. (*Id.*) Acorns are especially important for deer in California, making up 75% or more of the diet when they are available. (*Id.*)

The importance of oak woodlands to wildlife is further illustrated by a 1993 California Fish and Game report which states:

> Justifying the importance of hardwood rangelands and implications to wildlife if these habitats are lost or severely degraded is analogous to what would occur to wildlife if other habitats, such as wetlands and riparian and old-growth coniferous forests, were substantially altered.

(*See* Exhibit 40, p. 3.) Besides the abundant food resources, the report notes that:

> Hardwood rangelands provide many opportunities for breeding sites. Oak trees, in particular, because of their large trunks and branches, often dead and with cavities, are used by nesting birds.... Valley oaks in particular, provide important nesting habitat for a wide variety of birds, particularly large bodied birds such as raptors.

(*Id.* at 6.)

b. Oak Woodlands Provide Many Benefits to Soil and Water.

Oaks also play an important role in stabilizing soil, maintaining nutrients, and reducing erosion runoff to streams in oak woodland habitats. A 1983 Hardwood Task Force found that "the harvesting of hardwoods can, and does, cause damage to soil and water related resources.... Resource damage occurs through soil erosion, stream bank degradation, degraded water quality, and sedimentation of spawning grounds or other destruction of water related resources." (*See* Exhibit 41, p. 27; *see also* Exhibit 40, p. 2 ["Increased erosion, flooding and turbidity; reduced water quality; and reduced amounts of wildlife habitat were the consequences of these extensive woodland losses."].)

A 1991 Report prepared for the Board of Forestry found, where ground cover was reduced by grazing, oaks were an important factor in controlling the erosion observed on hardwood rangelands throughout California. (*See* Exhibit 42, p. 4-3) Oaks were also found to contribute to improved watershed conditions by contributing to higher water infiltration rates, soil fertility, and increased organic matter, compared to open grasslands without oaks. (*Id.*) The Report also found that due to the importance of oaks in nutrient cycling, the removal of oak canopy cover below 20% has adverse impacts on soil fertility. (*Id.* at 5-7). Overall, the Report confirmed the wealth of literature showing that the clearing of oak woodlands has the potential for significant negative impacts on soil stability, soil fertility, and water quality. (*Id.* at 3-7; Table 3-1.)

c. Oak Woodlands Are Being Lost Statewide and Locally.

Oak woodlands in California decreased by approximately 1.2 million acres from 1945 to 1985 from a combination of rangeland clearing, fuelwood cutting, and residential development. (*See* Exhibit 43, pp. 1-2.) The Board's 1993 Status Report on oak woodlands notes that "conversion of hardwood rangelands by land use change" was having the largest impact on the sustainability of the resource, but provides no numbers to gauge this impact. (*See* Exhibit 44, p. 5.) Since 1993, no state agency has attempted to assess the rate at which oak woodlands continue to be eliminated in California.

The evidence that does exist indicates that the declines are accelerating due to conversion to non-forestry land uses such as vineyard expansion or residential housing. This is particularly true in northern California counties. In Sonoma County, for example, between 1990 and 1997, researchers identified 11,600 acres of new vineyards, over 7,000 acres of which had replaced oak habitats. (*See* Exhibit 40, pp. 8-9.) The accelerating loss of woodlands in these counties are only

snapshots of what is happening throughout the state and, almost certainly, in Napa County. (*See, e.g*, *id*. at 8 [reporting that vineyard acreage statewide has more than doubled between 1990 and 1997]; *Id*. at 9 [discussing expanding vineyard acreage in Mendocino and San Luis Obispo Counties.])

Unfortunately, despite the continuing loss of oak woodlands, most local jurisdictions, including Napa County, have not adopted mandatory ordinances regulating the harvest or conversion of oak woodlands (Santa Barbara County's Oak Tree Protection and Regeneration Ordinance being the lone exception). "Grading ordinances" such as those adopted in Napa and Sonoma Counties, for example, do not require any special protection for oak woodlands, outside of minimal erosion control. In Sonoma County, for example, researchers estimate that only 20% of new vineyard conversions will even require an erosion control plan. (*See, e.g.*, Exhibit 41, pp. 19-20.)

The continued cumulative impacts from loss of oak woodlands have the potential to fragment habitat for wildlife populations which occur there. For example, the 1983 Task Force commissioned by the Board of Forestry to assess the status of oak woodlands found that these oak woodlands were "part of clear migratory corridors or winter feed areas" that provide acorns and browse, which the Task Force described as "critical food sources." (*See* Exhibit 41, p. 61). To protect these valuable forest resources consistent with the Forest Practice Act, the Task Force recommended minimum basal retention areas of hardwoods based on the size of the timber operation, the current level of hardwoods on the site, and the importance of the wildlife habitat at issue. (*Id.*, at 62-63.) This need to protect habitat connectivity is emphasized by the 1998 Integrated Hardwood and Range Management Study study assessing the impacts of vineyards on the oak woodland environment. The study found that:

> Habitat fragmentation is a major threat to the viability of many wildlife populations, and wildlife isolated in small patches of habitat is often in greater danger of localized extinction. The greatest risk is when small (less than 25 acre) (10-ha) regional woodlands are isolated from larger expanses of woodland. Chance events such as wildfires and epidemics can seriously impact these small woodland patches to a greater degree than larger blocks. Large mammals and raptors are especially sensitive to habitat fragmentation because they require large tracts of woodland in which to range. Extensive clearing of oak woodland should be avoided in the middle of contiguous woodland habitat, especially if the cleared area will lead to small isolated habitat islands.

(*See* Exhibit 46, p. 12.) Unfortunately, as discussed in the more recent 2000 study of vineyard expansion, habitat fragmentation is the norm in Northern California coastal counties. (*See* Exhibit 45, pp. 12-18.)

The possibility of habitat fragmentation and overall lack of information regarding the impacts to oak woodlands from vineyard conversions is particularly significant given the recent discovery of a pathogenic fungus, which has been decimating populations of oak species such as coast live oak and black oak in several coastal counties. (*See* Exhibit 47, p. 1.) Since oak woodland species are already under stress due to this disease, the environmental impacts from clearing healthy oak

woodlands is likely to be even more significant on wildlife and the physical environment.

In order to provide sufficient information regarding the environmental setting to judge the significance of this forest conversion, the County must prepare an EIR that provides information regarding the historic and current amount of hillside forest habitat, including oak woodlands, available in the region. In a recent Response to Comments document prepared by the County of Napa in relation to a new vineyard proposed for development in grassland habitat in southern Napa County, the County provided detailed information regarding both the historic and current amount of grassland habitat available in the County, and the percentage of that habitat that the project would eliminate. (*See* Exhibit 48.) An EIR for this project should do the same for oak woodlands.

As further support that the loss of over 121 acres of oak habitat is a significant impact, EDEN submits the attached report by Dr. Reed Noss entitled *Habitat Fragmentation as A Cumulative Impact of Winery Expansion and other Development in Napa County*. Dr. Noss details the type of information the County currently lacks in its assessment of the cumulative biological impacts of new vineyard conversion in the county. (Exhibit 49.)

Napa County, like Santa Barbara County has experienced a dramatic loss of oak woodlands due to vineyard conversions over the last 15 years. However, instead of turning a blind eye to the effect of vineyard conversions on oak woodlands, Santa Barbara County recently addressed the problem head on and passed a comprehensive oak tree protection and regeneration law. The law, known as "The County Deciduous Oak Tree Protection and Regeneration Ordinance" requires measures such as oak tree management plans which are required to:

> (1) Demonstrate how the mix of deciduous oak tree savannas, woodlands, and forests on the lot will be preserved, created, enhanced, restored, and maintained, so that:
> (A) The removal of protected oak trees does not divide the remaining savanna, woodland, and forest habitats into small, isolated fragments.
> (B) Protection, maintenance, restoration, and enhancement of large blocks of savanna, woodland, and forests are given priority over maintenance, restoration, and enhancement of smaller, more isolated habitat patches.
> (C) Valley and blue oak trees that link on- or off-site oak tree savannas, woodlands, forests, or other existing, proximate habitats are retained to the maximum extent feasible.
> (D) On-site replacement is given priority over off-site replacement except where no suitable on-site locations exist, or reasonable use of the lot would be precluded as determined by planning and development along with the oak tree specialist. In such cases the replacement oak trees may be planted in an off-site location acceptable to the applicant, the landowner and the oak tree specialist. For off-site replacement planting locations priority shall be given to nearby sites and to sites adjoining existing deciduous oak woodlands or providing links between deciduous oak woodlands.
> (E) There is avoidance of removal of actively used granary trees, raptor roosting or nesting trees, and trees in riparian and other wildlife corridors.

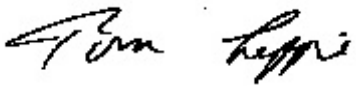
(Santa Barbara County Code, Chapter 35 Zoning, Article IX, Deciduous Oak Tree Protection and Regeneration.)

d. This project's contribution to existing significant cumulative habitat impacts is cumulatively considerable .

As described in the attached letter from Mr. Gaman (Exhibit 16), this project has significant impacts on oak woodlands and wildlife habitat. Therefore, preparation of an EIR is required.

Thank you for your attention to these comments.

Very truly yours,



Thomas N. Lippe

cc: Client

LIST OF EXHIBITS

1. June 28, 2005 Regional Water Board Napa River Sediment Total Maximum Daily Load Draft Technical Report ("Draft Technical Report").

2. National Marine Fisheries Service Endangered and Threatened Species: Threatened Status for Central California Coast Coho Salmon Evolutionary Significant Unit (ESU) Final Rule Fed. Reg. Vol. 61, No. 212, page 56138. October 31, 1996

3. National Marine Fisheries Service Endangered and Threatened Species: Listing of Several Evolutionary Significant Units (ESUs) of West Coast Steelhead Final Rule Fed. Reg. Vol. 62, page 43937. August 18, 1997

4. Napa River Basin Limiting Factors Analysis, prepared by Stillwater Sciences and Professor William Dietrich for San Francisco Bay Water Quality Control Board and California State Coastal Conservancy, June 14, 2002.

5. Cumulative Effects of Conversion of Upland Woodlands and Chaparral to Vineyards Report prepared by Robert R. Curry, PhD. December 24, 2000.

6. Expert Witness Report: Cumulative Impacts on Fisheries Resources from Intensive Viticulture Practices in Napa County, CA prepared by Robert R. Abbot, PhD., and Robert N. Coats, PhD. February 1, 2001

7. Water Availability Analysis: Policy Report: Napa County Department of Public Works, August 2003 (13 pages)

8. Department of Public Works, Water Availability Analysis (4 pages)

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