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**COMMENTS - THP 1-04-030 SON Hansen/Whistler Timber Conversion Permit/Timber Harvest Plan (Brushy Ridge, Annapolis, Sonoma County)**

May 22, 2004

To the California Department of Forestry:

Please consider the following comments on THP 1-03-030 SON (Hansen/Whistler TCP/THP).

I am a professional plant ecologist and botanist, specializing in coastal plant communities and species for over 25 years. My professional experience and qualification includes over 12 years experience in preparation, management, and review of joint NEPA/CEQA documents (EIR/EIS, environmental assessment/initial study) for U.S. Army Corps of Engineers (San Francisco District), and as a private consultant for the California Coastal Conservancy. I also have over 12 years experience in coordination and preparation of Endangered Species Act Section 7 consultations for the Corps and U.S. Fish and Wildlife Service, and over 5 years of experience preparing endangered species recovery plans for the Service. Much of my regulatory and environmental planning work has emphasized critical review or preparation of mitigation and restoration plans for endangered species and wetlands.

I have reviewed the Timber Conversion Permit/Timber Harvest Plan (TCP/THP) the proposed vineyard conversion and development. A summary of my comments is presented below, followed by more detailed explanation.

- (1) The Hansen/Whistler TCP/THP, like the other current TCPs in Annapolis (Roessler THP 1-04-055 SON, Martin THP 1-04-059 SON) either fails to identify, or grossly underestimates, *significant cumulative impacts of escalating agricultural conversion* on wildlife habitat (including endangered species), plant communities, biological diversity, wetlands, and water quality of the assessment area. It similarly fails to include necessary, appropriate, and feasible mitigation measures to address significant cumulative impacts.
- (2) The alternatives analysis does not comply with basic CEQA requirements for meaningful comparison of alternatives: (a) it *fails to state a project purpose that is not a circular re-statement of the project description*; (b) it *fails to consider a reasonable geographic scope for offsite alternatives* with less environmental impact that satisfy the basic project purpose, and it dismisses rather than evaluates both criteria for offsite

alternatives, and offsite alternatives themselves; (c) it also includes diversionary “*straw man*” alternatives outside a reasonable range of alternatives compatible with the project purpose, making an invalid argument for the selection of the proposed alternative. As such, the alternatives analysis serves as a rationalization of the applicant’s proposed project, rather than a meaningful comparison of alternatives under CEQA.

(3) The TCP/THP uses *arbitrary and unsupported criteria for significance of impacts*, particularly cumulative impacts, and demonstrates *reliance on the invalid “ratio theory of cumulative impacts* that has been rejected in CEQA case law.

(4) The TCP/THP *underestimates significant cumulative adverse impacts to the recovery of federally listed northern spotted owls*, providing a *substantially inadequate analysis of the cumulative effect of agricultural conversions on NSO predator populations*, availability of NSO refugial habitat from predation, and loss of foraging habitat due to direct effects of conversion, and more significant indirect of increased predator activity over more extensive areas beyond the project boundary.

(5) The TCP/THP’s *botanical report states that surveys were conducted after, not before tree removal*, and documented post-devegetation conditions as an environmental baseline. This is an *invalid environmental baseline for CEQA review*, which requires “existing conditions” before a project, not during its piecemealing, or during unauthorized grading, timber harvest, or development.

(6) The TCP/THP’s *botanical survey identifies obligate wetland plants* (plants always found in soils saturated or inundated long enough to be wetlands) on the project site, *but fails to disclose wetlands and wetland impacts, and fails to discuss feasible mitigation to protect*. Landclearing, groundwater pumping, and loss of tree canopy shade all indicate likelihood of dewatering or destruction of wetlands. The TCP/THP fails to provide sufficient information to evaluate this risk, or mitigate it.

(7) The TCP/THP *relies wholly on programmatic erosion control measures that are likely to be inadequate to prevent gullyng of unconsolidated, disturbed, fine sandy sediments of the Ohlson Ranch formation on steep slopes during the vulnerable first several years before buffer/erosion control vegetation establishes*. Yet it fails to include a monitoring and reporting program to verify the efficacy of proposed erosion control, or to implement adaptive management in case of insufficient erosion control.

(8) The TCP/THP *fails to evaluate the long-term cumulative impact of fertilizer transport through groundwater to seeps and springs that drain to Little Creek*, where chronic, small but biologically significant increases in available nitrate during the low-flow growing season *may cause significant increases in production of filamentous algae* (and necromass causing excessive or lethal biological oxygen demand) in stream channel summer pools that provide habitat for juvenile steelhead, and may be degraded.

### **Cumulative impacts of agricultural conversion in the project vicinity.**

The TCP/THP lacks the most basic analysis of cumulative impacts of agricultural conversion within a landscape. The TCP/THP fails to cite or provide a quantitative GIS-based analysis of vegetation and land use cover-type change over time within the watershed, biological assessment area, or soil series considered. No time-series aerial photography was considered as an objective

baseline for change detection, or accurate incremental change in cover types. Tallies of acreages from past THPs and TCPs, with no verification of actual vegetation areas altered, and no information on vegetation change due to other projects, are inadequate to assess cumulative impacts of agricultural conversion in Annapolis forestlands. The cumulative significance of notorious unauthorized landclearing (forest removal) in the Brushy Ridge, Annapolis area, is omitted in the absence of such a landscape-level analysis.

The abuse of the “ratio approach” to cumulative impact analysis in the THP (trivialization of an impact by comparison of its magnitude to an inflated geographic scope of analysis, rather than focus on its incremental contribution to other impacts within the geographic scale of related projects or sensitive receptors) is contrary to CEQA case law (see below), inconsistent with professional standards of CEQA, and is unacceptable for use in a CEQA-equivalent document. The TCP/THP’s analysis of forest change based on net decrease in percentage of Sonoma County or North Coast forest resources as a whole (p. 31) is arbitrary and misleading. No justification for the geographic scope of analysis (county or North Coast) was provided, despite acknowledgement that some “main issues” are “local” because of concentrations of vineyard conversions in the Brushy Ridge/Sleepy Hollow area (p. 3, RFP responses to PHI report, April 20, 2004). The comparison of the project conversion area to the county’s total forestland resources is a red herring: the relevant scope of analysis is the local watershed and soils series where the rates of vineyard conversions are escalating, and habitat fragmentation and deforestation are proliferating. The discussion of cumulative impacts does not adequately address the rate of change in agricultural conversion on Goldridge soil series in Annapolis, or a reasonable range of likely end-points for total future conversions given the current CDF practice of approving all applications for forestland conversion to vineyard there.

Seminal CEQA case law (*Kings County Farm Bureau v. City of Hanford*, 5<sup>th</sup> District 1990, 221 Cal.App.3d 692 [270 Cal.Rptr. 650]) has established that the “ratio theory” or “ratio approach” of cumulative impact assessment is invalid. The ratio approach focuses on the proportional contribution of an individual project to a larger general impact, such as an individual project’s contribution to the overall loss of a resource over a wide geographic area. This approach inevitably understates the severity of real, additive, incremental cumulative impacts, and instead quantifies a pseudo-cumulative “impact” that an individual project may cause, especially if the geographic scope of analysis of the area or resource compared with the project is arbitrarily enlarged. CEQA requires instead an assessment of the incremental, collective, or combined effect of both the project at issue, past projects, contemporary projects, and reasonably foreseeable actions, within a scope of analysis relevant to the project’s impact. *Citizens to Preserve the Ojai v. Board of Supervisors* (2<sup>nd</sup> Dist. 1985) 176 Cal.App.3d 421, 431-432 [222 Cal.Rptr. 247] ruled that it is

...vitaly important that an EIR avoid minimizing the cumulative impacts. Rather it must reflect a conscientious effort to provide public agencies and the general public with adequate and relevant detailed information about them...A cumulative impact analysis which understates information concerning the severity and significance of cumulative impacts impedes meaningful public discussion and skews the decisionmakers perspective concerning the environmental consequences of a project, the necessity for mitigation measures, and the appropriateness of project approval.

CDF is, in effect, piecemealing an area-wide program of progressive forest-to-vineyard conversion of an entire soil series in northwestern Sonoma County. CDF has currently more regulatory jurisdiction in this significant cumulative land use change than any other state agency, and thus has CEQA responsibility for identifying significant cumulative impacts of its actions.

Feasible mitigation for area-wide cumulative impacts cannot be attached to individual TCPs; it will require advance identification of sensitive resources, a landscape ecology approach to habitat conservation, and programmatic guidelines for site selection, protection, and mitigation. The appropriate CEQA tool for this purpose is a programmatic EIR. CDF should temporarily suspend processing all individual TCPs in the Annapolis area, and rectify inadequate cumulative impact assessment and (omitted) mitigation measures by preparing a programmatic EIR for timberland conversion to vineyard in Annapolis. This procedure is fundamentally no different from the preparation of a Specific Plan by local jurisdictions in incorporated areas of Sonoma County. For unincorporated areas like Annapolis, this responsibility must fall to CDF because it continues to authorize further vineyard conversions with unmitigated significant cumulative impacts.

### **Invalid purpose, scope and reasoning of CEQA alternatives analysis**

The Alternatives analysis for the project essentially fails all CEQA standards, providing inadequate and invalid statements of project purpose, no geographic scope of analysis or justification for it. It focuses on spurious straw-man “alternatives” that do not meet the basic project purpose, apparently in an attempt to make the proposed alternative seem more reasonable by comparison. Meaningful alternatives, like site selection that seeks old pasture or orchard and avoids forestland, are not evaluated; these, of course, would not justify the applicant’s preferred and pre-selected alternative to which financial resources have already been committed, prior to permit application process. The “analysis” is a perfunctory rationalization for the proposed project, and defeats the purpose of the aims of a CEQA alternatives analysis: to seek feasible means of avoiding or decreasing significant impacts while achieving the essential project purpose. In this respect, it is no different from the other current TCP alternatives analyses in Annapolis, a policy-level deficiency in CEQA-equivalent review by CDF.

The stated “project purpose” (Appendix M, p. 195) is circular and invalid, importing an inverted, narrow description of the proposed project linked to an incomplete statement of the basic project purpose: “to achieve an economic return *from the property* for the applicant while promoting the production of high quality agricultural products” (italics added for emphasis). This statement invalidly defines the site selection itself into the project purpose, precluding a reasonable comparison of site alternatives that could provide equal or superior economic returns on high-quality agricultural products, with less or no forest conversion. Thus, it unreasonably precludes any alternative that does not involve timber conversion, which is the cause of many or most project impacts, and CDF jurisdiction itself. This vicious circularity defeats the purposes and regulations of the CEQA guidelines, and is inconsistent with professional standards of CEQA practice. This basic purpose statement cannot arbitrarily assume a particular site if many potentially feasible alternative sites, with less sensitive environmental resources, may be available within a reasonable geographic scope of analysis. No discussion of a reasonable geographic scope of off-site alternatives is included.

The surprisingly broad basic project purpose of “high-quality agricultural” production does not specify wine grapes, or a particular varietal. This opens up the alternative site analysis to a very wide geographic range of locations for commodity crops. No information on the financial or practical feasibility of land resale and new site acquisition is included. Only the landowner’s purchase of the site, which is not a relevant CEQA factor, is given weight in offsite alternatives.

If other potential “high quality wine grape” vineyard sites on former or current lands with previous agricultural conversion, and a lack of spontaneous reforestation, are available, then clearly environmental impacts associated with deforestation and agricultural conversion may be avoided, not merely “shifted to another location”, as the analysis blithely asserts (p. 29). The

analysis rather outrageously argues that “the landowner has no desire nor does he own other property suitable for vineyard (p. 29), since “desire” and prior ownership of offsite alternatives are irrelevant to comparisons of feasible alternatives: no project proponent desires, by definition, an alternative to what is stated as the preferred alternative, and it would be irrational to expect prior ownership of potentially feasible alternative sites with less potential impact. Therefore, the argument is entirely irrelevant to CEQA analysis.

The alternatives analysis (p. 196) states that “...current zoning prevents it from being used for other such purposes...”. In fact, the project site appears to lie within a Mendocino rural residential subdivision, the grant deed of which includes Codes, Covenants and Restrictions that *prohibit* commercial activities and land uses that cause nuisance to subdivision residents. Commercial viticulture and timber harvest are manifestly commercial activities, and noise and construction associated with their operations are a nuisance to rural residents (as indicated by current litigation among residents over the subdivision’s deed restrictions, triggered by new vineyards). Alternative sites in or near Annapolis that do not require timber conversion, and which may lack conflicts deed restrictions or existing, prevailing rural residential land uses, have not been evaluated.

This specious alternatives analysis wholly fails to comply with CEQA standards for alternatives analyses. CDF is obliged to provide CEQA-equivalent review in its TCP/THP documents, and comparison with CEQA documents produced by any other CEQA lead agency in Sonoma County, would confirm that it has failed to do so in this (and other) TCP/THPs.

**Direct, indirect, and cumulative impacts to the federally listed Northern Spotted Owl:**

The introduction of large patches of agricultural and residential, open habitats in maturing second-growth coastal redwood/douglas fir/hardwood forest has indirect and cumulative effects on the distribution and abundance of predators of the federally listed Northern Spotted Owl (NSO), particularly great horned (and possibly barred) owls. In addition to the direct loss of NSO foraging habitat in agricultural conversion areas, larger areas of potentially suitable foraging habitat are likely to become unavailable, or an attractive nuisance (and potential cause of increased adult mortality of NSO), if great horned owl densities increase in response to a cumulative increase in agriculturally converted forestland. This impact would also be affected by the distribution as well as size of agriculturally converted forest patches, in relation to pre-existing suitable great horned owl and NSO habitat. This highly significant, landscape-level, cumulative and indirect impact of forest conversion is nowhere indicated or addressed, or mitigated, in the TCP/THP. The primary importance of great horned owl predation in the assessment of NSO habitat suitability and population viability is well-established in the scientific literature (Zabel, Cynthia J, J.R. Dunk, H.B. Stauffer, L.M. Roberts, B.S. Mulder, and A. Wright. 2003. Northern spotted owl habitat models for research and management application in California (USA). *Ecological Applications* 13: 1027-1040).

The definition of “take” includes “harm, harrassment...” , which includes substantial injury or interference with essential behaviors such as predator evasion and foraging. Avoiding direct mortality of individual adult NSO does not avoid “take” within the meaning of the Endangered Species Act regulations and case law.

For both these endangered species, the THP should disclose the status of Habitat Conservation Plans for the project area, necessary to authorize incidental take of endangered species (including, by law, essential behaviors such as foraging and nesting) and protect viability of their

populations. Technical Assistance from the U.S. Fish and Wildlife Service for incremental plans does not provide for species conservation or authorization of incidental take of essential habitat.

The TCP provides no feasible mitigation for significant *cumulative* adverse impacts to NSO. Purely procedural pseudo-mitigation actions, such as promises to acquire a “no take certificate” (*sic*) from USFWS, are not a substantive mitigation, and are unacceptable under CEQA (*Sundstrom v. County of Mendocino* (1<sup>st</sup> Dist. 1988) 202 Cal.App.3d 296 [248 Cal.Rptr. 352]). The analysis of NSO impacts and mitigation is wholly inadequate. The current NSO mitigation practice of leaving circular buffer areas around documented NSO activity centers, taken to its logical conclusion, would eventually result in a patchwork of NSO buffer habitat islands in a matrix of degraded or displaced habitat. The recovery of this federally threatened species is not compatible with reduction of NSO metapopulations to isolated individual home ranges.

### **Invalid environmental baseline for assessment of impacts to biological diversity**

The Botanical Report for the TCP/THP (p. 107, Kjeldsen Biological Consulting) states that “The Minor Timberland conversion is for an anrea of the property *that has been cut and cleared of most of the timber*”(emphasis added), but does not explain how recently or by whom. The purpose of a botanical survey is to document existing pre-project conditions so impacts to the environmental baseline of vegetation can be assessed. Obviously, this basic CEQA purpose is already defeated. The photograph on Figure 1 (p. 108) shows that clearing of the ground layer has indeed occurred recently, with large tire/caterpillar tracks, and all non-conifer woody or perennial vegetation, and conifer saplings, essentially eliminated. The botanical report includes only a species list, with no description of the age-structure, canopy structure, pattern, or composition of vegetation, or indications of its history that would accurately reflect the original, pre-project conditions, prior to clearing of the vegetation. It then states, without irony or explanation, that “our field work did not find any of the special-status species known for the quadrangle...” and “there are no [CNDDDB] records for the project site”, which is on private land that has probably never been botanically surveyed before. The absence of evidence for sensitive species on a site freshly cleared of vegetation, where no prior surveys occurred, is guaranteed by the after-the-fact timing of the survey, and the unauthorized pre-THP devegetation. This is invalid and unacceptable as a CEQA-equivalent environmental baseline.

The Botanical Report provides a snapshot of environmental baseline of the proposed project partially completed, not “existing conditions” prior to the CEQA action. The landowner appears to have permanently degraded the site to minimize resource values in advance of CEQA (thus lowering the relative impact of the proposal), and the Botanical Report is complicit in obscuring this. The absence of forest herbs typical of the area (e.g. *Achlys*, *Calypso*, *Cynoglossum*, *Disporum*, *Piperia*, *Trillium*, *Smilacina*), presumably eliminated by landclearing, is nowhere discussed. These pre-permit impacts may have significant and unmitigable effects on the biological diversity of forest herb communities (Vellend, M. 2003. Habitat loss inhibits recovery of plant diversity as forests regrow. *Ecology* 84: 1158-1164.). The report provides no assessment of the native species diversity of the site or its setting, or the significance of plant populations without special legal status. The majority of the report is boilerplate summary text describing types of vegetation that do not occur in the project’s environmental setting in Annapolis, and definitions. Meaningful assessment of biological diversity (Council on Environmental Quality 1993. CEQ Guidance Regarding Biodiversity. CEQ, Washington, DC) is a component of professional standards for CEQA documents.

The use of a partially completed project as an environmental baseline is invalid, and does not comply with the requirements of CEQA: it biases the comparison of alternatives to minimize impacts related to setting or site, and it may irreversibly commit resources to the proposed alternative prior to the conclusion of CEQA. (Dupouey, J.L. E. Dambrine, J.D. Laffite, and C. Moares. 2002. Irreversible impact of past land use on forest soils and biodiversity. *Ecology* 83:2978-2984; Matlack, G. 1994. Plant demography, land-use history, and the commercial use of forests. *Conservation Biology* 8: 298-299.)

To correct these deficiencies, the environmental baseline for plants should be based on two or more proximate reference sites that have not been subject to recent land-clearing activities. The botanical report should provide an accurate description and assessment of the overall species diversity of the setting and site, and vegetation patterns that may indicate long-term trends in biological diversity. The botanical report, and CDF's evaluation, must consider not only special-status species, but the conservation value of overall biological diversity of the site in its regional setting, considering community-level, population-level, and taxonomic diversity, not just special status species. CEQA does not reduce the scope of biological impact assessment to effects on special-status species based on presence/absence data (particularly when species surveys are conducted after unauthorized landclearing).

#### **Incomplete and contradictory information on wetlands.**

The botanical report identifies common spikerush, *Eleocharis macrostachya*, as "common". This clonal species is an obligate wetland indicator plant, found almost always in soils saturated or inundated long enough to be wetlands. The report also identifies nutgrass, *Cyperus eragrostis* var. *eragrostis*, as "common". (The listing of *Juncus occidentalis* as a "palustrine" species is inaccurate for vegetation and soils in this region). The report correctly lists them as "riparian" and "aquatic" species, but provides no comment on their distribution or extent, or relationship to hydrologic features of the site. Yet the report states (p. 103) "there are no jurisdictional wetlands ...associated with the project site". These statements are inconsistent. I was unable to find any supplemental information on seeps, springs, or near-surface groundwater in the TCP/THP. Clearly, the TCP/THP is deficient in its disclosure of wetlands, assessment of wetlands impacts, and inclusion of all feasible mitigation measures to protect wetlands against destruction or degradation from filling, conversion, drainage/dewatering, and disturbance. A wetlands delineation during the spring, by a qualified wetland delineator with experience with northwestern Sonoma County soils and vegetation, should be required, and verified by the Corps of Engineers.

#### **Inadequate assessment and mitigation for erosion and sedimentation impacts on Little Creek**

The erosion control and mitigation plan does not adequately consider the potential for significant erosion and sedimentation during major storm events in the year following ripping and grading, prior to establishment of stabilizing vegetation cover. The inadequacy of straw mulch as a surface stabilizer was indicated in the past two winters at one new vineyard on Annapolis Road, on the same Goldridge soil series: large rills and gullies deposited sediment from the vineyard on Annapolis Road, and in a tributary of Fuller Creek. The erosion control plan for Whistler does not refer to any actual results of the standardized methods applied to comparable slopes and soils in the same rainfall climate. It also proposes no monitoring or reporting of actual erosion and sedimentation after installation to verify or falsify its charitable assumptions regarding the adequacy of its mitigation measures. At a minimum, winter rain season inspections for rills, gullies, and sheetwash, with adaptive management required as mitigation, should be conditions

for approval. Contingency measures for failure of erosion control should be specified and linked to monitoring and reporting. In the absence of monitoring and reporting, the same untested assumptions may be applied to other conversions and contribute to significant cumulative impacts on erosion and sedimentation if they are inaccurate. CDF is responsible for requiring monitoring.

### **Inadequate cumulative impact assessment of deforestation and agricultural fertilizer impacts on water quality of Little Creek**

The fine sandy acidic loams of Goldridge soils have low moisture-holding capacity, and low cation-exchange capacity (nutrient-holding capacity), particularly horizons below the A horizon, which would predominate after grading. Such sandy loams would be highly unproductive in the absence of fertilizer amendments and supplemental irrigation. Applied fertilizer, in the absence of a dense forest root-mycorrhizal mat that would efficiently assimilate applied nutrients, will gradually leach through the transmissive sandy loam subsoils, and load shallow groundwater with augmented nitrate and (to a lesser extent) less mobile dissolved phosphates. As in most agricultural watersheds, accumulated nutrients would be released from shallow groundwater to summer baseflows of Little Creek, where even low-level increases in free nitrates would likely stimulate algal production significantly (particularly *Cladophora* [filamentous green alga] blooms attached to channel beds). Excessive algal biomass in summer pools of creeks may significantly degrade water quality (high biological oxygen demand), reducing refugial habitat for steelhead, and breeding habitat for amphibians. The cumulative significance of this impact must be evaluated in the context of past, currently proposed, and foreseeable future agricultural conversions in the Little Creek watershed. This has not been done in the Whistler TCP. No feasible mitigation measures have been identified or proposed for this potentially significant cumulative impact. Monitoring of pre-conversion seasonal variability in filamentous algal production and free nitrate in downstream creeks, and long-term comparisons with post-project conditions, should be a minimum condition for authorization of the project.

### **Conclusions**

I urge CDF to temporarily suspend the processing of this and other pending timber conversions in the Annapolis area, and initiate an area-wide programmatic EIR that focuses on a proper scope of cumulative impact assessment, analyzed with appropriate methods (GIS, aerial photography analysis). The PEIR should include advance identification of sensitive resources so that alternative site analysis can be achieved at a meaningful, broader geographic scale, and deforestation can be minimized as vineyards are developed. I further recommend that CDF review other area-wide resource studies, and EIRs with legally sound alternatives analyses, from the central and north coast region. CDF must require objective monitoring and reporting for mitigation measures it assumes will be sufficient to reduce impacts to less-than-significant levels. Otherwise, inaccurate and unverified assumptions will be repeatedly misused in additional THP and TCP reviews.

Respectfully submitted,

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Interested parties