Letter 29

UNIT, FG, WQ, ER, Ch, RPF

SantaRosa Publiccomment

From: baye [baye@earthlink.net]
Sent: Friday, July 16, 2010 12:04 AM
To: Santa Rosa Public Comment
Subject: THP 1-19-058SON Artesa Fairfax comments
Attachments: CALFIRE Artesa-Fairfax THP 09-058-SON post-PHI comments Baye 071610.pdf

Please find the attached comment letter (.pdf) sent via email. Please contact me if you have difficulty opening the document. Thank you. Peter Baye, Annapolis, CA

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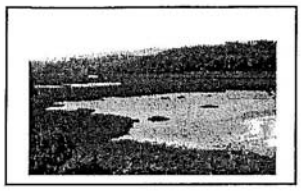
7/16/2010

Letter 29 Cont'd.



Peter R. Baye, Ph.D.
Botanist, Coastal Plant Ecologist
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CAL FIRE
Forest Practices, Regional Office, Santa Rosa
santarosapubliccomments@calfire.ca.gov

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JUL 16 2010
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RESOURCE MANAGEMENT

via email

July 16, 2010

SUBJECT: THP 1-09-058-SON Codorniu Napa (Artesa-Fairfax) post-Preharvest Inspection THP comments

To: Forest Practices, Santa Rosa Regional Office, CAL FIRE

Please consider the following comments on the subject THP and include them in the THP and TCP records for this timber harvest and forest conversion project.

29-1 **1. Old growth redwood impacts.** The Regional Water Quality Control Board PHI report dated April 12, 2010 on pp. 6-7 discloses that potential old-growth redwood impacts on site could occur, and the RWQCB recommends mitigation. This contradicts the Draft Environmental Impact Report on p. 3.4-4, which states that no old growth redwood occurs on the site. Impacts to old growth redwoods are potential significant impacts. CAL FIRE's contradictory statements regarding old growth redwoods in THP and TCP/EIR public documents have precluded meaningful comments on significant impacts and mitigation.

29-2 **2. "Sacred Redwood".** The Regional Water Quality Control Board PHI report also discloses on p. 10 that a "Sacred Redwood" (which is distinct from the old-growth redwoods described on p. 7) occurs on the site. The DEIR does not identify the existence of (native Pomo culturally significant resource) "Sacred Redwoods" on the site, nor does it describe the general cultural context and environmental setting of the Sacred Redwood. Impacts to sacred sites of Kashia religious life are potentially significant. CAL FIRE's failure to disclose these potential impacts (while respecting confidential specific locations) and mitigate them to the satisfaction of Kashia tribal members who actively practice cultural traditions, again reveals inconsistent THP and TCP/EIR public documents that have precluded meaningful public comments on potentially significant impacts.

29-3 3. The THP and PHI documents provide no substantive evidence that proposed buffers around domestic water supply (DPS) wells on site are adequately protective against significant pesticide drift-induced contamination based on existing conditions as baseline. Neither the THP nor TCP/EIR documents include any quantitative estimates of long-term pesticide loads, identification of pesticides that are likely to be used within the project life, nor any mitigation restrictions on pesticide use or location of applications.

29-3 Cont'd. Similarly, the THP and TCP/EIR fail to provide substantive evidence or analysis of aerial pesticide (aerosol) drift affecting pre-existing adjacent rural nonagricultural residential land uses.

4. Alternatives. Neither the THP nor TCP/EIR have updated the alternatives analysis, and its assumptions, to reflect profound long-term economic changes in the regional and national wine industry that have occurred in the last year (2009-2010). The Artesa-Fairfax vineyard project was proposed circa 2001, and re-submitted as a THP/TCP in 2004, back when the economic bubble of premier wine grape growing was near its peak. The availability of vineyard properties for sale has dramatically increased in northern Sonoma County, and the notorious "grape glut" and long-term decline of the luxury wine market has been authoritatively documented by industry experts in national and regional newspapers; see Attachment A. The alternatives analysis based on 2004 conditions is no longer valid or applicable. The economic viability, as well as need and purpose, of the proposed forest conversion is now highly doubtful. CAL FIRE can no longer reasonably rely on outdated economic assumptions of the original alternatives analysis, nor can it justify permanent elimination of ecologically and silviculturally productive North Coast conifer forest for speculative and economically tenuous vineyard conversion under current and foreseeable economic circumstances. 29-4

The knowing retention of outdated economic data and assumptions, and failure to apply rigorous analysis of current economic data to the project's alternatives analysis (especially including off-site alternatives within the market area that do not require forest conversion), is contrary to the intent of the Forest Practices Act, and CEQA-equivalent THP alternatives analysis procedures.

5. Archaeological and cultural resources. The THP appears to disregard the expert archaeological and anthropological opinion of Prof. Peter Schmidt of the University of Florida, regarding the eligibility of the site as *an archaeological district* for nomination to the National Register of Historic Places (NRHP), a process that automatically leads to listing on the California Register of Historical Resources (CRHR). The failure to assess the site's archaeological setting as a whole may result in avoidable significant impacts and invalid conclusions of the alternatives analysis. 29-5

Respectfully submitted,

Peter R. Baye

Peter R. Baye, Ph.D.

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RESOURCE MANAGEMENT

cc: Friends of the Gualala River
Center for Biodiversity (J. Augustine)
Earthjustice (G. Torgun)
Interested parties

LETTER 29: PETER BAYE, BOTANIST, COASTAL PLANT ECOLOGIST

Response to Comment 29-1

In response to RWQCB comments made during the on-site pre-harvest inspection meetings, a cluster of tall, partially-visible redwood trees south of Starcross's buildings and some 900'-1500' distant in the lower central portion of Unit 2 was voluntarily excluded from the timber harvest work area. Similarly, three tall many-stemmed second-growth redwood clusters located near the vineyard sump were excluded from development by increasing channel offsets and adjusting the sump location.

Regarding the language on page 3.4-4 of the DEIR referenced by the commenter -- "As the project site was formerly harvested, likely between 1940 and 1960, no "old growth" occurs on the project site" -- this statement is accurate because what is meant is that there is no old growth *forest* on the project site. As stated elsewhere on page 3.4-4, the north coast coniferous forest on the project site is second-growth forest, and is dominated by stands of Douglas-fir (*Pseudotsuga menziesii* var. *menziesii*) and wide spread growth of tan oak (*Lithocarpus densiflorus* var. *densiflorus*). Redwood (*Sequoia sempervirens*), madrone (*Arbutus menziesii*), sugar pine (*Pinus lambertiana*) and California bay (*Umbellularia californica*) trees occur sporadically on the site. In reality, much of the timbered areas on the project site are dominated by dense stands of tan oak and in selected areas there are remnant stands of second growth redwoods and sporadic occurrences of Douglas fir. There typically is a dense, brushy understory that likely became established after the site was logged.

Notwithstanding the above, a few select old growth *trees* have been identified on the project site since the release of the DEIR for public review, and these old growth redwood trees have been identified for preservation/avoidance in the latest Vineyard Plan (See Figure 1-1 of the Introduction chapter of this Final EIR).

Response to Comment 29-2

Protective buffers for the "sacred redwood" and two seasonal wetlands below this redwood tree have been revised to reflect RWQCB Recommendation 19 as slightly modified during a telephone call between Ms. Blatt and Mr. Monk. The old growth redwood will have a setback that is 25 feet off of its dripline. The vineyard fence shall be established at this boundary. In addition there will be a vegetated vineyard lane that is not planted to grapes next to the wetland buffer that will increase the buffer width from the vineyard an additional 20 to 25 feet. The protection buffer around the redwood tree will continue southeasterly to the Class III tributary and will include two seasonal wetlands (Wetland 26 and Wetland 27- Sheet C1). The setbacks that incorporate these two seasonal wetlands shall be a minimum of 25 feet from the wetland edge, but per the revised Vineyard Plan (Sheet C1 – see Figure 1-1 of this Final EIR), the average setback from the seasonal wetlands will be approximately 40 feet. The actual protected corridor width below the redwood containing Wetland 26 and Wetland 27 will be approximately 115 feet wide.

It is very important to note that the terminology "sacred redwood" was used by the project team and the involved agencies to simply reflect the terminology used for the tree in question by Starcross Monastery. The "sacred redwood" terminology was originally used by Starcross when describing the tree in question given the tree's significance for their community. The terminology has nothing to do with any sort of historical relationship between the redwood tree and Kashia religious life, as suggested by the commenter.

Response to Comment 29-3

Please see Response to Comment 7-9 regarding pesticide concerns previously expressed by the commenter in Letter 7 of this Final EIR.

Response to Comment 29-4

Please see Response to Comment 7-5.

Response to Comment 29-5

Please see Responses to Comments 13-5 and 13-13.

Letter 30

KFA
THP Tracking Center
A Project of the Klamath Forest Alliance
P.O. Box 457, Klamath Falls, OR 97601
www.thptrackingcenter.org

May 18, 2009

Cal Fire
Forest Practice Program Manager
135 Ridgway Avenue
Santa Rosa, CA 95401

RECEIVED
MAY 20 2009
COAST AREA OFFICE
RESOURCE MANAGEMENT

RE: THP 1-09-058 SON

Dear Cal Fire Manager,

30-1 Thank you for the opportunity to comment on THP 1-09-058 SON. I have read the plan and would like to submit some comments on behalf of the THP Tracking Center for your consideration.

30-2 Erosion Hazard Rating: This THP has a hazard rating other than low so winter operations should not be allowed. It is not advisable for Cal Fire to depend on contract clauses or the self-enforcement of wet weather operations by timber operators.

30-3 Spotted Owl - Degraded Habitat: This THP has logging units within or adjacent to 2 historic 1.3 mile NSO Protected Activity Centers. Since conversion logging usually removes cover, habitat will remain permanently unusable for the spotted owl. Habitat loss gives the Barred Owl a competitive advantage because of the loss of cover for the canopy dependent spotted owl.

30-4 303(d) Watershed: This THP is located upstream or within a waterbody that is listed as water quality limited under section 303(d) of the Federal Clean Water Act. Winter operations and operations within WLPZs, RMZs, ELZs and unstable areas should not be allowed in watersheds that contain 303(d) listed streams.

30-5 Beneficial Uses of Water: This THP has drainage features that collect runoff from adjacent areas with impaired water quality, which reduces the beneficial uses of water. Winter operations and operations within WLPZs, RMZs, ELZs and unstable landforms should not be allowed to add to already existing degraded watershed conditions.

Letter 30
Cont'd

Once again, thank you for the opportunity to comment on this timber harvest plan.

Kyle Haines
THP Tracking Center
P.O. Box 457
Klamath Falls, OR 97601
kfaeastside@yahoo.com
www.thptrackingcenter.org

LETTER 30: KYLE HAINES – THP TRACKING CENTER

Response to Comment 30-1

The comment is an introductory paragraph and does not address the adequacy of the DEIR.

Response to Comment 30-2

As stated on page E-11, Item 23(a), of the Timber Harvest Plan (THP), timber operations will not occur in the winter period.

Response to Comment 30-3

The northern spotted owl (NSO) habitat protection measures listed under Item 32 on pages E-19 and 20 of the THP conform with US Fish & Wildlife Service recommendations and will ensure sufficient NSO habitat remains following operations.

Response to Comment 30-4

It is acknowledged on page E-47 of the THP that the Gualala River is a 303(d) listed watercourse. As stated on page E-11, Item 23(a), timber operations will not occur in the winter period. As stated on pages E-14&16, Items 26& 27 of the THP, there are no watercourses within the conversion area and no practices are proposed that are in-lieu of standard WLPZ protection measures. Unstable areas do not occur on-site.

Response to Comment 30-5

Please see Response to Comment 30-4.

Letter 31

UNIVERSITY OF FLORIDA

Department of Anthropology

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July 19, 2010

Allen Robertson
Deputy Director
California Department of Forestry and Fire Protection (CAL FIRE)
Sacramento, CA

RECEIVED
JUL 20 2010
COAST AREA OFFICE
RESOURCE MANAGEMENT

Dear Mr. Robertson,

RE: 1-09-058 SON

31-1 I am responding to the call for comments pertaining to the THP for the Fairfax Conversion. Since I did not have access to any of the pertinent documents (the NWIC being closed and Chuck Whatford being absent from his office until July 20) in order to make an informed professional assessment about the subsequent archaeological assessments in 2009 and the modifications to mitigation proposed by the RPF, it is impossible to comment beyond what I previously wrote last year, below. I make the additional point that any less than a rigorous scientific assessment of all zones and areas to be disturbed during the harvesting of timber, given the historical importance of the area, would be an unnecessary risk. It is simply not acceptable to monitor ground disturbing activities to locate and protect archaeological sites—this must be done before the fact.

Yours sincerely,

Peter R. Schmidt
Professor of Anthropology and Archaeology

July 27, 2009

Allen Robertson
Deputy Director
California Department of Forestry and Fire Protection (CAL FIRE)
Sacramento, CA

1

Letter 31
Cont'd.

I am a professional archaeologist with long-standing interest in the history and archaeology of the Pomo people of northern California and more specifically, Sonoma County. As a long-term former resident of Sonoma County and then as a landowner in the Salt Point area since 1979, I have maintained my interest in Pomo history during the years as I have followed an international career in heritage management and archaeology. My experience in cultural heritage assessment is extensive, starting with my service as State Archaeologist and State Historical Preservation Officer (SHIPO) of Idaho (where I read and assessed hundreds of EIRs) and continuing over the years with service on the Rhode Island Preservation Commission and RI National Review Board. I have worked both domestically and internationally for decades to enhance the quality and methods used in heritage assessment. As a neighbor to the Fairfax Conversion Project (SCH# 2004082094), my curiosity was naturally piqued about the potential impact on cultural resources. Consequently, I obtained a copy of the DEIR and also made a site visit to adjacent properties, with the permission of property owners, to examine the contexts in which the archaeological assessments were conducted.

31-2

My following remarks are divided into three sections. The first deals with archival resources and what they have to tell us about the location of important prehistoric and historic settlements in the area. The second section focuses on the knowledge that local citizens have about archaeological locales within an environment they have intimately known for decades. The third section examines the assessment methodologies and the proposed mitigation plan for archaeological resources.

Archival Sources

An examination of the anthropological literature, something that is not manifest in the DEIR, reveals that the Annapolis is a rich and hugely significant historical zone. It is perhaps one of the most extensive settlement areas associated with the Kashaya Pomo, a phenomenon that is documented by Samuel Barrett (1908), a UC Berkeley anthropologist who focused considerable attention on the Pomo, their language, and their historical communities. Using the testimony of living informants at the turn of the 20th century, Barrett recorded detailed testimonies about the locations of numerous Pomo settlements and encampments in northern California, including what he called the Gualala Division. A short review of these historical communities, many of which have their origins in great antiquity, is pertinent given the importance of the Barrett evidence. Barrett mentions a number of village sites, many of which cluster in the general Annapolis area. Among these are:

31-3

- Kōba'te: "on what is known as Biddle ridge north of the middle fork of Gualala river and at a point probably about two miles northeast of the confluence of that stream with the main branch of Gualala river" (Barrett 1908:225). These approximate distances would place the site on the northern outskirts of today's Annapolis, within the orbit of the Fairfax Conversion.
- Ca'mlī: "in the mountains immediately north of the middle folk of Gualala river and at a point probably about three miles a little north of east of the confluence of

Letter 31 Cont'd.

that stream with the main branch of Gualala river. (Barrett 1908:225). The description provided by Barrett places this village site in general zone of the Fairfax Conversion.

- Ma'kawica:"in the mountains immediately north of the middle fork of Gualala river and at a point probably about a mile and a half a little north of the old village of Kōba'te. The site is about midway between Buckeye creek and the middle fork of the Gualala river" (Barrett 1908:225). Barrett's description of this site places it in the zone of the Fairfax Conversion.[1]

31-3 Cont'd.

This extensive array of settlements documented by Barrett is one of the densest and most significant, interactive clusters of human habitation along the Sonoma coastal hinterland. It is puzzling that such critical evidence has not been mentioned, or given the prominence that it deserves in an assessment of cultural resources. Clearly, the Annapolis area is an archaeological zone of great importance, holding a priceless record of prehistoric and historical life on the Sonoma Coast hinterland.

31-4 The DEIR mentions only one historically documented site, quoting from the Neri report (Gifford and Kroeber 1939)—that the site of Kaba'tūī may have been in the vicinity of the Fairfax Conversion. Barrett has more to say about this settlement, referring to it as an encampment, viz: "in the mountains north of the middle fork of Gualala river and at a point about a mile and a half northwest of the old village of hībū'wī" (Barrett 1908: 226). While the particular location is vague, it nonetheless amplifies the earlier point that this is a rich archaeological zone.

31-5 This quick review leaves one with the distinct impression that there has been a failure to incorporate key and very significant archival information about the prehistoric and historic settlements of the Kashaya Pomo people in Sonoma County. This does not meet professional standards. EIRs must show full and complete archival research that is comprehensive and exhaustive. This has not occurred in this case, and this failure is a major problem that may have significantly biased the assessment of cultural resources on the Fairfax Conversion. The extensive archival records indicate that there was every reason to use the most rigorous scientific inquiry possible to assess the significance of archaeological resources in the development zone.

Interviews with Local Residents

31-6 On July 23, 2009, I visited Annapolis and conducted oral interviews of local residents as well as visited several areas of archaeological interest contiguous to the Artesa property. According to one well-informed resident, there are at least four archaeological locales within 200 meters to the south of the Artesa-01 site (and in all likelihood, there are additional locations contiguous to the spring seepage in the vicinity). Using information recorded over the years by local informants, a map of observed archaeological resources

[1] The Barrett estimates are just that—estimates. While not precise, they do show that these sites bracket the development area, with some possibility that part of one may be located within the Artesa property. Cumulatively, this evidence is critical for demonstrating that the Beatty Ridge area is a highly sensitive cultural zone.

3

31-6 Cont'd. shows ten (10) archaeological locales[2] either on the Artesa property or immediately contiguous to it.[3] The likelihood of additional locales in the immediate area can only be ascertained through a systematic sampling program.

Archaeological Resources and the DEIR: Methodology and Mitigation Protocols

31-7 I present here summary remarks and evaluations on the assessment methodologies and the planned mitigations for cultural resources within the Fairfax Conversion. Let me start with what appears to be a fundamentally flawed methodology used in the assessment, something that subsequently influenced the proposed mitigation. I will first address the assessment methodologies and then the mitigation protocols.

Assessment Methodologies

31-8 It is not apparent why the post-Neri investigations by Origer and Associates were restricted, with the exception of sites-01 and -04, to sites documented by Neri. There are numerous warning signs in the Neri reports as quoted by Origer. For example, it is mentioned that "Ground visibility was generally fair in the wooded areas, and fair to poor in the grassy meadow areas. Numerous roads and skid trails were present throughout the wooded and grassy areas and provided the best opportunity for observing project soils. The areas of high archaeological sensitivity were investigated completely using pedestrian transects spaced between 20 and 30 meters, and random hoe scrapes" (DEIR 5.3:17). Fair to poor ground visibility in an area with sometimes deep duff compels methods that go much further than random hoe scrapes. Additionally, the bias introduced by depending on roads and skid trails for surface exposures is problematic. Finally, the use of transect intervals and locations are vague and imprecise. Given that there are no indications of a scientifically adequate survey method used by Neri, restrictions on the scope of the Origer investigations—to documented only designated sites—were inappropriate, simply amplifying the idea that the Neri-designated resources are the only archaeological resources present on the parcel.

31-9 Given the archaeological importance of the Annapolis area and the demonstrable failure to conduct a rigorous scientific assessment of heritage resources on the Artesa property, additional assessment using much more rigorous methods is imperative. At a minimum, in an area that has been subjected to mechanical alterations in the past (such as cut and fill), low-impact, sub-surface investigations are compelling. I strongly recommend a complete re-evaluation of the methodology to incorporate scientific standards that will ensure that sites are less likely to be overlooked because of low visibility on the surface. Using the principles demonstrated by Handsman and Lamb (1995), sampling transects in contexts with smaller sites must be responsibly spaced, e.g., 10 meter intervals, possibly less. Moreover, sampling methods should incorporate sub-surface examination on a

[2] The term locale is used because there has not yet been a formal archaeological determination, using the criteria in the DEIR, of "site" status. Most, however, appear to meet such criteria.

[3] For reason of confidentiality, I have not included this map in these comments. It is available by special request to authorized agencies.

31-9 Cont'd. flagged grid in a manner that has low impact, e.g., bucket augers, with provisos to expand assessment using STUs to confirm auger results. Furthermore, in such a sensitive setting, there is a strong justification for the use of remote sensing, possibly a magnetometer transect survey, to locate areas of human habitation that involved burning, e.g, burned rock (chert processing), hearths, and other such features.

Mitigation Protocols

31-10 The DEIR presents mitigation protocols [3.5-3(a)] for archaeological sites that require a Pomo tribal representative and a consulting archaeologist to be present during "grading" activities, but it unfortunately fails to require that such representatives be present during ALL earth moving activities. Moreover, the mitigation protocols stipulate that machine operators will be trained to recognize artifacts and will report any findings to said representatives. These are not adequate protocols. The mitigation fails to mention that vineyard conversions entail deep ripping of the soil, a ground-disturbing process that instantaneously destroys the integrity of archaeological sites, particularly smaller sites with low visibility. In such a sensitive cultural context, monitoring ***alone*** without rigorous and systemic survey, poses high risk to sub-surface archaeological resources—a risk that can be significantly reduced by employing sub-surface testing during a new survey assessment. Monitoring should be seen as a secondary, back-up protocol to more intensive sub-surface investigations.

31-11 Secondly, the idea that machine operators will be objective observers of archaeological objects ignores a strong conflict of interest that such individuals have as employees of contractors working for the developer [protocol 3.5-3(b)]. It also questionably assumes that such individuals can observe small objects in the midst of dust and moving earth while mounted on large machines. Assuming that monitoring has a back-up role to play in such a sensitive archaeological zone, the consulting archaeologist(s) and Pomo tribal representative should be present at all times in the location of each operating machine.

31-12 After having read the DEIR, and having observed the Artesa-01 site from continuous property, it is not clear why sub-surface investigations did not occur on the periphery of this site, given its size and argued importance. The demarcated limits must be seen as just that—preliminary and tentative—until such time as a systematic sub-surface inquiry can define its precise extent and ancillary remains such as residences. Middens in this region have been shown to be spatially related to residential units; this site likely does not stand alone, but is rather a part of a larger array of satellite sites. Additional assessments are also suggested in light of the questionable mitigation suggested for seasonal road use in the area.

Concluding Observations

31-13
- There are hearsay accounts circulating that additional sites have been discovered on the Artesa property in Annapolis since the DEIR was published for comment, and if such reports are accurate, this additionally points to deficiencies of the survey and sampling strategies thus far employed.

5

31-14
- The DEIR treatment of archaeological resources treats each of the defined sites as discrete rather than part of a larger constellation of sites through deep time, with perhaps strong social interaction during historic times. Provisionally, it would appear that the local documentations, the evidence from Samuel Barrett's 1908 listing of Pomo sites, and the preliminary and incomplete DEIR evidence all point to the very real possibility that the Artesa property or Fairfax Conversion is located in the midst of a significant complex of Native American archaeological sites. This in turn suggests that all concerned parties should be considering *an archaeological district* for nomination to the National Register of Historic Places (NRHP), a process that automatically leads to listing on the California Register of Historical Resources (CRHR).

31-15
- Finally, the Artesa sites are of great interest to Goal OS-9 of the Sonoma County General Plan, viz: Preserve significant archaeological and historical sites, which represent the ethnic, cultural, and economic groups that have lived and worked in Sonoma County. In the larger scope of opportunities to address the long-marginalized history of Native peoples in Sonoma County, the archaeological resources on the Artesa property and surrounding properties provide an unusual opportunity to preserve and expand knowledge about a little known past that continues to suffer rapid erosion.

Should you like additional information or want to discuss my comments, I can be reached at schmidtp@ufl.edu. Until August 4, I can be contacted at (707) 847-3838.

Yours sincerely,

Peter R. Schmidt
Professor of Anthropology and Archaeology
University of Florida

Cc: Reno Franklin, Tribal Historic Preservation Officer, Stewarts Point Rancheria

Additional Sources Cited

6

Barrett, Samuel A. 1908. The Etho-Geography of the Pomo and Neighboring Indians. *University of California Publications in Archaeology and Ethnology* 6(1):1-332.

Handsman, R. and T. Lamb-Richmond. 1995. Confronting Colonialism: The Mahican and Schaghticoke Peoples and Us. In *Making Alternative Histories: The Practice of Archaeology and History in Non-Western Settings,* pp. 87-117. SAR Press, Santa Fe.

7

LETTER 31: PETER R. SCHMIDT, UNIVERSITY OF FLORIDA

Response to Comment 31-1

Please see Responses to Comments 13-5 and 21-8.

Response to Comment 31-2

The comment is an introductory to the following comments and does not address the adequacy of the DEIR.

Response to Comment 31-3

The commenter is accurate in describing the Annapolis area as having relatively dense habitation in the period preceding European settlement. The references mentioned by the commenter were indeed part of the archival research conducted through the Northwest Information Center of the California Historical Resources Information System for the original survey.

Please see Response to Comment 13-5 for an updated Methods of Analysis section of the DEIR, which includes additional details of the archival research conducted for the project site.

Response to Comment 31-4

Please see Response to Comment 13-5.

Response to Comment 31-5

The conclusion that the necessary archival research was not done is inaccurate. Please see Responses to Comments 13-5 and 21-2.

Response to Comment 31-6

Please see Responses to Comments 13-5 and 21-5.

Response to Comment 31-7

The comment is introductory to the following specific comments on assessment methodologies; see the below responses to specific comments.

Response to Comment 31-8

Please see Responses to Comments 13-5 and 21-8.

Response to Comment 31-9

Please see Responses to Comments 13-5 and 21-8.

Response to Comment 31-10

Please see Responses to Comments 21-9 and 10-44.

Regarding the rigorous and systematic survey aspect of the comment, see Response to Comment 13-5.

Response to Comment 31-11

Please see Response to Comment 10-44 for the presentation of updated DEIR Mitigation Measure 3.5-3(a), which now includes a requirement for Native American monitor (representing the tribe) and an archaeological monitor to be present during all earth-moving activities associated with the proposed project.

Response to Comment 31-12

Please see Response to Comment 21-11.

Response to Comment 31-13

Please see Response to Comment 13-5.

Response to Comment 31-14

Please see Response to Comment 13-13.

Response to Comment 31-15

The commenter recognizes that the archaeological sites on the Fairfax Conversion property represent 'the ethnic, cultural, and economic groups that have lived and worked in Sonoma County'. The statement is true; therefore, the archaeological sites are being excluded from development and protected. Please see Response to Comment 13-5 for further discussion on this point.

Letter 32

UNIT, FG, WQ, ER, LM, RPF

SantaRosa Publiccomment

From: KATHYANDJAMIE HALL [phoenix11@dishmail.net]
Sent: Monday, July 19, 2010 6:44 AM
To: Santa Rosa Public Comment; Sacramento Public Comment; cblatt@waterboards.ca.gov
Subject: THP 1-09-058-SON Comments
Attachments: Artesa DWS Comments.docx

Here are my comments pertaining to proposed DWS mitigations (Hall) in THP 1-09-058-SON.
Jamie Hall

RECEIVED
JUL 19 2010
COAST AREA OFFICE
RESOURCE MANAGEMENT

7/19/2010

To: CAL FIRE –Santa Rosa Office
135 Ridgeway Avenue
Santa Rosa, CA 95402

From: Jamie Hall
34910 Annapolis Rd
Annapolis, CA 95412
707-886-5321

7/18/2010
Subject: THP 1-09-058-SON

32-1 Pertaining to the proposed mitigation to the Class 1 DWS spring (Hall) Pages E-14 and E-26 of the most recent THP document, May 21, 2010.
Please include this in the public comments file.
First of all, we were not notified of any pending approval date for the THP or a potential date for the end of comments, either by the RFP or CDF. Why are THP comments separate from the EIR comments? Since one would not be happening without the other. Also, why would a clear cut of over 100 acres be permitted in this case, when they are not allowed for regular THPs?

32-2 Secondly the brief paragraph lumps both DWS springs Taeffer and Hall, (two different situations) in the same paragraph.
The small semicircular vineyard exclusion on the map on page E-26 makes no sense, as the adjacent proposed area north of this drains back towards the road and west into said drainage, this is not apparent on the map and obviously was not ground truthed by the hydrologic surveys.
Even if this were not the case, a 60 or 70 inch rain year would result in toxin laden runoff into said drainage. Despite what the applicant states, none of the vineyards in the area "don't" spray Fungicides, Herbicides and Sulfur, we have no reason to believe that Artesa would be any different.
Then there is the issue of runoff from the opposite side of the road, which would increase significantly with the clear cutting of this area. Approximately 350 feet of road frontage from 25 feet east of the county 7 mile marker , (the site of the pitifully undersized (16") and rotted culvert under Annapolis Road), will drain directly into the spring drainage.
How the said minimum 150 foot clearance from the spring would keep toxic runoff out of this drainage is totally unclear.
And last but not least, the fact as stated by hydrologist Greg Kammen, and well known locally, that all our springs and wells are replenished by rain and surface seepage over the rainy season, meaning that whatever goes on the land during rain, goes into our water systems.

32-3 As to the Native American cultural issues. This area has been well known by everyone in the area as a highly significant site to the native population. Extensive artifacts have been found throughout the area. Clear cutting and deep ripping of the soil would completely destroy much of this cultural treasure. Extensive surveys should be conducted to ascertain whether this area should be set aside for this reason alone.

32-4 None of this addresses the fact that the two areas adjacent to the spring were not in the original 2001 plan but were included after criticism of the project by members of the community.
As I previously stated, the only "mitigation" that makes sense would be to go back to the original 2001 plan or abandon this venture, as no "public benefit" could possibly be derived from this plan. In light of the recent downturn in demand for "Premium" wines, this is even more obvious.

Sincerely: Jamie Hall

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JUL 19 2010
COAST AREA OFFICE
RESOURCE MANAGEMENT

LETTER 32: JAMIE HALL, RESIDENT

Response to Comment 32-1

Please see Response to Comment 4-1.

Response to Comment 32-2

Page E-14 of the Timber Harvest Plan includes mitigation measures for domestic water supplies (DWS) and distinguishes between the Hall and Taeffer supplies. Specifically for the Hall DWS the THP states: "The slopes adjacent to the northern most DWS spring (Hall) are greater than 50% and this spring shall be provided with a 150' no operations buffer. The vineyard access road directly above this spring shall be planted with a permanent cover crop and have waterbars installed spaced no more than 75' apart."

The location and layout of the vineyard units shown on the map included on page E-26, including the small semicircular vineyard exclusions above the DWS and associated water in question, were developed to not only provide protection to the watershed but other resources as well. The area has been ground-truthed and Chapter 3.7 of the EIR includes an extensive analysis of hydrology and water quality indicating that impacts will be less than significant after mitigation.

As indicated in the THP and EIR, the landowner intends to use integrated pest management (IPM) in the maintenance of the vineyard. IPM focuses on long-term prevention or suppression of pest problems with minimum impact on human health, the environment or non-target organisms. As a part of the proposed vineyard development and maintenance, chemicals will only be used when a feasible alternative does not exist. In the event that pesticide or herbicide use is deemed necessary during the development and operation of the vineyard, the applicant would strictly adhere to federal, State, and local regulations pertaining to the use of permitted chemicals (See Response to Comment 7-9). Only low-toxicity, high-LD50 materials with minimal biological hazard would be applied, and these materials would be applied at low, safe, and least-cost agronomic rates, according to label direction. Only personnel with the proper license and/or certification would be permitted to handle potentially hazardous materials, and chemical applications would take place under the supervision of a qualified vineyard manager. IPM will be used in the development and maintenance of the vineyard in order to minimize chemical use in the vineyard to the extent feasible.

In addition to the use of IPM and adhering to all applicable laws, regulations and labels the following mitigation measure would provide for a proper response to potential chemical spills, which would protect water quality from any accident occurring during the transport or use of agricultural chemicals: *Prior to the issuance of grading permits, the applicant shall provide the Department of Forestry and the Sonoma County Permit and Resource Management Department with an Agricultural Chemical Use and Storage Contingency Plan. The Plan shall include the measures that will be taken in the occasion that a spill occurs. Potential measures include: the deployment of straw wattles or other barriers stored on-site, instructions for diverting any overland flow away from onsite drainages, the on-site storage of absorbent materials to clean up*

any spills, and a prominent listing of accident and hazard responding agencies, including: the Sonoma County Department of Emergency Services and the Sonoma County Hazardous Materials Response Team. The Plan shall be made available to all workers handling pesticides and shall be posted on the corporation yard building.

Culvert #2 (referred to as "the pitifully undersized (16") and rotted culvert under Annapolis Road" in the comment) has a pre-construction tributary watershed of only 2.5 acres, which will not be changed by post-construction conditions. About 90% of the watershed will be converted from mixed deciduous second growth trees and brush to permanent grass cover cropped vineyard. 100-year peak flows would be expected to be on the order of 1 cfs/acre or 2.5 cfs for either situation based on Sonoma County Rational Hydrology computation methods. The existing 12" CMP would flow at non-erosive velocities between ¼ and ½ full under Q_{100} conditions. The very small scour hole at the end of the existing culvert after likely 20 – 40 years of operation reflects this low peak flow rate. The small watershed also results in low-volume trickle flows and short duration runoff events. The culvert is hundreds of feet above the DWS noted with a discontinuous channel and overland sheet flow between the scoured area and canyon below. Rock riprap of s.g. 2.5 and D_{50} of 6-8" in a thickness of 8-12" in a 4' diameter basin is judged adequate to prevent additional scour at this location.

Response to Comment 32-3

Please see Response to Comment 13-5.

Response to Comment 32-4

The comment does not address the adequacy of the THP, but will be considered by CAL FIRE as the processing of the project continues.

UNIT, FG, WQ, ER, LM, RPF

Dear Ms. Markham:

Letter 33

Please enter these comments into the file of THP 1-09-058 son.

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JUL 19 2010
COAST AREA OFFICE
RESOURCE MANAGEMENT

33-1 Initially I am disturbed by the loss of documents, both public comments and expert opinion, that was incurred by bureaucratic changes in the project that allowed the applicant to start a "new" project that some how is "radically different" from the one begun back in 2001. This is the same vineyard THP/conversion as the last application! And as such, I feel that the comments previously expressed should be brought forward into 1-09-058 son.

33-2 It is my belief and of great concern to me, that the heavy equipment used in logging operations will damage or destroy the many archaeological relics that are within the THP boundaries; particularly in the area immediately to the East of the large midden site that is located in the SouthWest corner of the property.

33-3 In my walks with and discussions with Dr. Peter Schmidt, I have come to a deeper understanding of the significance of this village site with its attendant satellite habitations.... this area in Annapolis is so vast and redolent with artifacts, that it deserves to be upgraded to "District" status and logged into the California Historical sites listing as well as entered into the Sonoma County register of sites Deserving of Cultural and Historical Recognition and Preservation.

Letter 33
Cont'd.

As evidence to what can happen to sensitive Archaeological sites, one need look no further than the area above the Old Horicon School in the NW corner of this project, where logging in the past has crushed artifacts and bulldozed them into the ravine that runs East/West, just South of the School. (This area has already been flagged as Arch/culturally sensitive by Artesia's team of "Archaeologists".

33-3 Cont'd.

It is also my opinion that the water used domestically By the Hall, Anderson and Wellman families, have not been protected from pesticides or loss of volume.

33-4

I do not believe that any of the mitigations offered, will lessen the hydro/climateological effects of forest loss and water empoundment included in this project. The losses of water to the river and substrata, along with the rise in ambient air temp., will on a cumulative level, impact this local riverine/coastal environment in a negative way.

33-5

Thank you for your Attention!

Randall W. Sinclair
36600 Annapolis Rd
Annapolis, Ca.
95412

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JUL 19 2010
COAST AREA OFFICE
RESOURCE MANAGEMENT

LETTER 33: RANDALL N. SINCLAIR, RESIDENT

Response to Comment 33-1

Public comments submitted on the Fairfax Conversion project have not been lost. Quite the contrary, as is evidenced by the information included on pages 1-5 and 1-6 of the Fairfax Conversion DEIR, CAL FIRE's process reflects its responsiveness to public and agency input:

> A mitigated negative declaration was previously prepared for development of a vineyard on the project site. Due to substantial public comment on the environmental analysis the document was withdrawn in 2003. Subsequently, the project has been revised, additional studies have been conducted, and the Draft EIR has been prepared.

The discussion continues by listing all of the comment letters received on the initial Mitigated Negative Declaration. Rather than being lost, these public comments were carefully considered by CAL FIRE, resulting in the preparation of the Fairfax Conversion DEIR.

Response to Comment 33-2

Please see Responses to Comments 10-44 and 13-5.

Response to Comment 33-3

Please see Response to Comment 13-13.

Response to Comment 33-4

Please see Responses to Comments 32-2 and 34-4.

Response to Comment 33-5

Please see Responses to Comments 12-5 and 12-7.

Letter 34

Blank

UNIT, FG, WQ, ER, LM, RPF

SantaRosa Publiccomment

From:
Sent: Monday, June 01, 2009 9:52 AM
To: Santa Rosa Public Comment
Subject: FW: THP 1-09-058 SON comments
Attachments: ncrm water letter 05.27.2009.doc

From: Robin Joy [mailto:robinjoy@mcn.org]
Posted At: Monday, June 01, 2009 9:17 AM
Posted To: Santa Rosa Review Team
Conversation: THP 1-09-058 SON comments
Subject: THP 1-09-058 SON comments

Dear CDF Review Team,

34-1 I have been in the offices in Santa Rosa twice now. I have a full copy of the THP and will be making several comments. I would and need a few more days as I want my responses to be clear and concise. As people who are affected by these THP's - we get very little time to comment and very little notice. I live two hours away and had to make two trips to make sure I received the THP. I do work and this had been very time consuming - but remains important so I have tried to make it a priority. I have also had to be out of town this last weekend in May. So - my apologies for not getting this in sooner. But for now I have attached my comments to Jeff Longcrier regarding my water wells and my home once again not noted on most maps he has submitted.

Here are some comments at this time:

34-2 1. Some of the roads on the maps are not 'old roads' and should not be noted as such. Most are old deer trails that people have used for hiking and biking. There is only one very old road that has not been used for over 30 years. It is now a path.

34-3 2. The pond that sits on their property - which is a part of the project and clear cut - is once again not noted. This was a past problem and remains manipulated on their part to avoid the area.

34-4 3. Once again they have not noted my water wells which are adjacent to the project and will be affected. The drainage they plan on changing is the drainage used for not only my water source - but for more than ten homes down the water course path. Because these folks do not sit adjacent - they are not noted or notified - however the water course does exist and should be taken into consideration. This will create a adverse impact.

34-5 4. Their are several species of birds and other animals that now sue these forests as homes. I will submit a list in the very near future.

Thank you - please add this attachment to the file. I understand their is no map - and will send that as a hard copy.

Robin Joy -
robinjoy@mcn.org
www.robinjoyfamily.com

NAI - Region 9 Director
robinjoy@mcn.org
http://www.nairegions.org/9/index.htm

Fort Ross State Historic Park
rjoy@parks.ca.gov

6/1/2009

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Letter 34
Cont'd

www.fortrossstatepark.org

"In matters of style, swim with the current; in matters of principle, stand like a rock."
– Thomas Jefferson -

Please consider the environment before printing this email

6/1/2009

LETTER 34: ROBIN WELLMAN – RESIDENT – 6/1/09

Response to Comment 34-1

The comment is an introductory paragraph and does not address the adequacy of the DEIR.

Response to Comment 34-2

The roads shown on the THP Operations Map, THP page E-26, have been placed in three categories: Existing Permanent, Existing Seasonal and Proposed Temporary. All Existing Permanent and Existing Seasonal roads are currently passable by pickup or atv traffic and were visited during the Pre-harvest inspection. The Proposed Temporary roads are in some cases old deer trails or hiking trails that will be temporarily improved to allow truck traffic and will then be incorporated into the vineyard area as described on THP page E-13, Item 25.

Response to Comment 34-3

The pond in question has been noted on the latest version of the THP Operations Map, THP page E-26, dated May 20, 2010 (see Appendix C to this Final EIR), and has been included in the wetland calculations.

Response to Comment 34-4

The THP notes all surface collected Domestic Water Supplies (DWS) on the THP Operations Map, THP page E-26. All responses to DWS notifications are included on THP pages E-102 through E-127.8. Subsurface wells and water supplies have been taken into consideration and were addressed in the extensive water quality and availability analysis included in Chapter 3.7 of the project EIR.

Response to Comment 34-5

The commenter does not provide a specific list of birds and animals. Please refer to Response to Comment 7-1 for a detailed description of the extensive bird and mammal surveys that have been carried out on the project site by the professional biologist firm, Monk & Associates. In addition, the DEIR includes mitigation measures, which in some cases have been revised in this Final EIR (See Chapter 2 of this Final EIR for a list of changes to the DEIR), to ensure that all potential project impacts to birds and other special-status animals are less-than-significant.

Letter 35

Blank

UNIT, FG, WQ, ER, LWM, RPF

SantaRosa Publiccomment

From: Robin Joy [robinjoy@mcn.org]
Sent: Thursday, July 08, 2010 1:57 PM
To: cblatt@waterboards.ca.gov; Santa Rosa Public Comment; Lukacic, Anthony
Subject: Artessa

Dear CDF, California Regional Water Quality Control Board, Fish and Game,

I am writing with concerns regarding the Artessa THP/Conversion in Annapolis #1-09-058.SON
My concerns are:

35-1
- The headwaters for Red Fern Creek will be affected - due to the conversion and planting of grapes. the drainage flows will be hampered creating a change of water flow. This wetland headwater area is critical to the water flow and the drainage of this seasonal creek. The plan shows the drainage to go toward their holding pond - which is away from the creek watershed area.

35-2
- The water drainage is the water source for my water well - and also includes the water source of 6 other downstream residents as well as the Horicon School. This will affect my water source and supply amounts.

35-3
- As you can read - this is an important drainage.
- Not only does Artessa hope to plant in this area - but also along the narrow strips of land that follows this drainage. The area around these acreage is also steep and will surely drain into this watershed. There is no way this would not happen - even with mitigation measures - as the flow of water down these slopes is assured. This acreage adds up to about 7 acres at most. I would like to request that this area be set aside - no conversion - no planting of vineyard.

35-4
- The chemicals used would drain into this watershed. This would affect our water source -which we drink from. This is a very serious concern.

Please consider reviewing and asking this area be eliminated from the plan. The acreage is minimal compared to the impact.

Thank you for your consideration

Robin Joy -
robinjoy@mcn.org
www.robinjoyfamily.com

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7/9/2010

LETTER 35: ROBIN JOY WELLMAN, RESIDENT – 7/8/2010

Response to Comment 35-1

Chapter 3.7 of the DEIR includes an extensive analysis of hydrology and water quality indicating that impacts will be less than significant after mitigation.

The following describes increased protection measures to "Red Fern Creek":

As a matter of record, per the January 2010 modifications to the Forest Practice Rules (FPRs), required buffers for the Class III tributaries are 30 feet where side slopes are 0 to 30 percent, and 50 feet for greater than 30 percent side slopes. Accordingly, all minimum buffers along Class III tributaries have been changed to reflect the new requirements, and are now at a minimum of 30 feet. That said, Monk & Associates biologist Mr. Geoff Monk discussed the "Red Fern Creek" setbacks with Ms. Cheri Blatt at RWQCB and an agreement was reached that new setbacks would be established that exceed FPRs' required setbacks as follows: The minimum setback from "Red Fern Creek" shall be 50 feet from its top-of-bank, and the overall averaged setback shall be a minimum of 75 feet from top-of-bank. Accordingly, the project vineyard engineer provides the following setback information: The average setback along 2019 linear feet of the north side of "Red Fern Creek" is 92.9 feet. The average setback along 600 linear feet of the south side of "Red Fern Creek" is 56.9 feet. Please note that the linear footages correspond with the length of the creek where it interfaces with the THP and vineyard project. By weighted proportion, the average setback for the total vineyard project is [(2019/2619)*92.9 + (600/2619)*56] = 84.4 feet. Thus, the setbacks have been revised to exceed the setbacks agreed to between Mr. Monk and Ms. Blatt on April 28, 2010. Regarding the seasonal wetlands above the "Red Fern Creek Class III tributary, the buffer that was agreed upon with RWQCB on April 28, 2010 and that is now incorporated into the revised vineyard plan is a 50-foot buffer from the edge of wetland to the vineyard fencing. As a matter of record, the vineyard plan also calls for 20 to 25-foot vegetated vineyard avenues immediately adjacent to the wetland buffer and thus there would be a 70- to 75-foot buffer between wetland and grape vines.

Response to Comment 35-2

While seasonal channel surface runoff is a portion of the hydrologic budget for the area in question, it is not an important source of groundwater recharge. The water that does not run off is the primary source of recharge. See also Response to Comment 12-5.

Response to Comment 35-3

Please see Response to Comment 35-1 above.

Response to Comment 35-4

Please see Responses to Comments 7-9 and 32-2.

Blank

UNIT, FG, WQ, ER, LW, RPF

SantaRosa Publiccomment

From: Robin Joy [robinjoy@mcn.org]
Sent: Thursday, July 15, 2010 8:13 AM
To: Robin Joy; cblatt@waterboards.ca.gov; Santa Rosa Public Comment; Lukacic, Anthony
Subject: Re: Artessa

#1-09-058 SON

36-1 I understand another is to take place today. I understand these meetings take place during the work week - which is troubling as many of us you would like to oppose this - attend the hearings - have to work. I do not get time off for this. This is a hardship for many - so we trust our voices will be heard and that the agencies that are to protect our land will do so and speak for us.
I am troubled that I can not attend.
I am troubled that the THP - to clear cut this much land - can be approved before the conversion hearings and not to go side by side. if we clear-cut this land - and not approve the conversion - what is the point. I don't understand.

36-2 There is not enough mitigation that will stop the flow of water from moving down hill - as water flows down - so the change of water course and the planting around this little creek canyon - which is our clean water source - needs to be stopped.
Please add this to public record. I do not have access to the CDF web.

Robin Joy - State Park Interpreter I
Fort Ross 2012 Bicentennial Chair
frinterp@parks.ca.gov
www.fortrossstatepark.org

NAI - Region 9 Director
robinjoy@mcn.org
http://www.nairegions.org/9/index.htm

robinjoy@mcn.org
www.robinjoyfamily.com

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"We make a living by what we get, we make a life by what we give."
– Sir Winston Churchill

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----- Original Message -----
From: Robin Joy
To: cblatt@waterboards.ca.gov ; santarosapubliccomment@fire.ca.gov ; Lukacic, Anthony
Sent: Thursday, July 08, 2010 1:57 PM
Subject: Artessa

Dear CDF, California Regional Water Quality Control Board, Fish and Game,

I am writing with concerns regarding the Artessa THP/Conversion in Annapolis #1-09-058.

7/15/2010

LETTER 36: ROBIN JOY WELLMAN, RESIDENT – 7/15/2010

Response to Comment 36-1

A recorded copy of the Timberland Conversion Permit must be submitted to CAL FIRE prior to approval of the Timber Harvest Plan. Therefore, timber operations cannot occur until both the Timber Harvest Plan and Timberland Conversion permits are approved. In addition, it should be noted that no meetings were held on the project site on July 15, 2010. CAL FIRE assumes the commenter is referring to the second review team meeting, which was held at CAL FIRE offices in Santa Rosa on July 8, 2010. This meeting was a follow up agency meeting to the in-field Pre-Harvest Inspection (PHI) meetings carried out on the project site. These meetings are principally for the regulatory agencies and the project team to discuss the design of the project as well as on-site natural resources, including archaeological resources, which are considered sensitive and therefore confidential to the general public. Because the public's concerns regarding the Fairfax Conversion project are important to CAL FIRE, a weekend meeting was held at Horicon Elementary School for the expressed purpose of soliciting public comment on the Fairfax Conversion DEIR. This meeting was held on Saturday June 27, 2009 so that the working public could attend. In addition, written comments have been accepted on both the THP and EIR and treated with the same weight as oral comments.

Response to Comment 36-2

Please see Response to Comment 35-1.

Letter 37

CENTER for BIOLOGICAL DIVERSITY

April 27, 2011

SENT VIA EMAIL

Mr. Allen Robertson
California Department of Forestry and Fire Protection
P.O. Box 944246
Sacramento, CA 94244-2460
SacramentoPublicComment@fire.ca.gov

Re: Comments on the Fairfax DEIR

Dear CAL FIRE:

The Center for Biological Diversity ("Center") submits the following additional comments for the Fairfax Draft Environmental Impact Statement ("Fairfax DEIR")/THP 1-09-058-SON. The Center is a non-profit, public interest, conservation organization dedicated to the protection of native species and their habitats through applying sound science, policy and environmental law. The Center has over 40,000 members, many of whom reside in California.

37-1

The California Environmental Quality Act ("CEQA") mandates that the environmental impacts of a project be considered and analyzed, and that agencies "mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so."[1] Mitigation of a project's significant impacts is one of the "most important" functions of CEQA.[2]

As the lead agency, it is CAL FIRE's duty to ensure that the Fairfax EIR conforms with applicable law. With regard to GHG emissions analysis under CEQA, the Attorney General's Office has explained:

> Lead agencies should make a good-faith effort, based on available information, to calculate, model, or estimate the amount of CO2 and other GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities.
>
> The question for the lead agency is whether the GHG emissions from the project . . . are considerable when viewed in connection with the GHG emissions from past projects, other current projects, and probable future projects.

37-2

[1] Pub. Res. Code § 21002.1(b); *see also* Pub. Res. Code § 21002 ("[It is the] policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures which will avoid or substantially lessen the significant environmental effects of such projects.")

[2] *Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d 30, 41

Arizona • California • Nevada • New Mexico • Alaska • Oregon • Montana • Illinois • Minnesota • Vermont • Washington, DC

Justin Augustine • 351 California St., Suite 600 • San Francisco, CA 94104
Phone: 415-436-9682 x302 • Fax: 415-436-9683 • jaugustine@biologicaldiversity.org

**Letter 37
Cont'd**

> Unlike more localized, ambient air pollutants which dissipate or break down over a relatively short period of time (hours, days or weeks), GHGs accumulate in the atmosphere, persisting for decades and in some cases millennia. The overwhelming scientific consensus is that in order to avoid disruptive and potentially catastrophic climate change, then it's not enough simply to stabilize our annual GHG emissions. *The science tells us that we must immediately and substantially reduce these emissions.*
>
> The decisions that we make today do matter. Putting off the problem will only increase the costs of any solution. Moreover, delay may put a solution out of reach at any price. *The experts tell us that the later we put off taking real action to reduce our GHG emissions, the less likely we will be able to stabilize atmospheric concentrations at a level that will avoid dangerous climate change.*
>
> [Agencies should] evaluate *at least one alternative* that would ensure that the [agency] contributes to a lower-carbon future.[3]

37-2 cont'd

On December 30, 2009, the California Resources Agency, pursuant to SB 97, adopted CEQA Guidelines for greenhouse gas impacts.[4] For example, Guideline 15064.4 declares that a "lead agency should make 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."[5] Guideline 15064.4 sets forth factors a lead agency should consider in reaching a significance determination, and states that a "lead agency should consider . . . [t]he extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting . . . ."[6] The Final Statement of Reasons for the CEQA greenhouse gas Guidelines explains: "[15064.4(b)'s] reference to the 'existing environmental setting' reflects existing law requiring that impacts be compared to the environment as it currently exists."[7]

The above statements from the Attorney General and Resources Agency make clear that agencies must give careful attention to the greenhouse gas ("GHG") impacts associated with the projects they approve and must calculate, model, or estimate all of the GHG impacts associated with a particular project. After fully quantifying a project's effects, an EIR must determine the cumulative significance of the project's greenhouse gas impacts. An impact is considered

---

[3] *See* Climate Change, the California Environmental Quality Act, and General Plan Updates: Straightforward Answers to Some Frequently Asked Questions California Attorney General's Office [Rev. 9/01/09] (emphasis added).

[4] *See* California Natural Resources Agency, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97 (Dec. 2009), *available at* http://ceres.ca.gov/ceqa/guidelines/

[5] *Id.*

[6] *Id.*

[7] *See* California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97 (Dec. 2009) at 24, *available at* http://ceres.ca.gov/ceqa/guidelines/

Letter 37 Cont'd

37-2 cont'd

significant where its "effects are individually limited but cumulatively considerable."[8] Climate change is the classic example of a cumulative effects problem – emissions from numerous sources are combining to create the most pressing environmental and societal problem of our time.[9] While a particular project's greenhouse gas emissions may represent only a small fraction of total emissions, courts have rejected the notion that the incremental impact of a project is not cumulatively considerable just because it is small.[10]

37-3

This Project is particularly problematic from a GHG perspective because it "would convert forests and grasslands to vineyards, a reservoir, corporation yard, and roads."[11] As explained below, forests are one of this planet's greatest attributes in terms of sequestering carbon, and, consequently, any loss of forest is cause for serious concern. In this particular instance, 154 acres of forest would be clear-cut and permanently lost;[12] therefore, alternatives and/or mitigation must be presented in the DEIR to address this significant environmental impact. Indeed, the lead agency for this DEIR, CAL FIRE, has already stated that conversions such as this one are a significant GHG threat that require mitigation:

> One of the activities recognized as having adverse impacts to CO2 sequestration potential of California's forests is deforestation through conversion . . . [L]oss to conversions are recognized as potential threats to the Forest Sector in relation to achieving [AB 32 GHG] goals . . . . [C]onversions will require GHG accounting to analyze and mitigate the direct and indirect impacts associated with these types of projects . . . . Even before carbon sequestration was in the national spotlight it was acknowledged that the most significant threat to resource values associated with forest lands is when those forestlands are converted to non-timberland uses . . . . [C]onversion of forests to other non-forest uses [] has been shown in many studies to reduce the potential for carbon sequestration and elevate carbon release on a long-term basis . . . ."[13]

---

[8] Guidelines § 15065(a)(3)

[9] *Ctr. for Biological Diversity v. Diversity v. NHTSA*, 508 F.3d 508, 550 (9th Cir. 2007), ("the impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct"); *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720 ("Perhaps the best example [of a cumulative impact] is air pollution, where thousands of relatively small sources of pollution cause a serious environmental health problem.")

[10] *Communities for a Better Env't v. California Resources Agency* (2002) 103 Cal.App.4th 98, 117 ("The relevant issue was not the relative amount of traffic noise resulting from the project when compared to existing traffic noise, but whether any additional amount of traffic noise should be considered significant given the nature of the existing traffic noise problem. From *Kings County* and *Los Angeles Unified*, the guiding criterion on the subject of cumulative impact is whether any additional effect caused by the proposed project should be considered significant given the existing cumulative effect.")

[11] DEIR at 4-1

[12] DEIR at 4-2

[13] *See* CAL FIRE's Official Response for THP 04-08-024-AMA

**Letter 37
Cont'd**

I. BACKGROUND: FOREST ECOSYSTEMS ARE CARBON SINKS THAT CAN PROVIDE A SIGNIFICANT CONTRIBUTION TO CARBON STORAGE AND SEQUESTRATION

The following information provides background regarding forest carbon, explains why retaining existing forest is extremely important from a GHG perspective, and demonstrates that there are significant differences in carbon sequestration between a forest and a vineyard.

A. Carbon Forest Basics

Forests play an important role in reducing the amount of carbon dioxide in the atmosphere. During photosynthesis, trees "breathe in" carbon dioxide and "breathe out" pure oxygen. Through this process, forests remove massive amounts of carbon dioxide from the atmosphere each year.

Forest ecosystems also serve as banks that store carbon for finite periods of time; thus, in a natural state, and/or if managed well, they are carbon sinks and not sources (Tans et al. 1990). Carbon is added to the bank regularly through photosynthesis, which removes carbon dioxide from the atmosphere and stores the carbon contained therein in the organic matter of the forest.

Forest ecosystems are complex, and include not only living and dead trees but understory vegetation, and soil. Each of these elements contains carbon. For example, Turner et al. (1995) estimated that forests in the coterminous United States contain 36.7 Pg [14] of carbon with half of that in the soil, one-third in trees, 10% in woody debris, 6% in the forest floor, and 1% in the understory. The location of forest carbon is important because it helps determine how much carbon remains in storage or is lost after disturbances like logging.

37-4

B. Forest Conversion Releases Carbon Stores

Certain forest management actions, and conversion in particular, allow stored carbon to be released into the atmosphere. Thus, in addition to affecting habitat, conversion causes a withdrawal from the forest carbon bank: carbon is removed from long-term storage and released to the atmosphere, exacerbating global warming and climate change.

Evidence shows that the carbon dioxide releases from conversion can be substantial. In a letter to the California Air Resources Board regarding California Climate Action Registry Forest Protocols, Harmon (2007) wrote:

> Timber harvest, clear cutting in particular, removes more carbon from the forest than any other disturbance (including fire). The result is that harvesting forests generally reduces carbon stores and results in a net release of carbon to the atmosphere.

Turner et al. (1995) suggest that in light of climate change and further disturbance, we need to

[14] Pg [petagram]=one billion metric tonnes=1000 x one billion kg

Letter 37 Cont'd

37-4 cont'd

pay close attention to forest loss due to the fact that:

> In the U.S., projections call for a 5% loss in the private timberland area by the year 2040 (Alig et al. 1990). A general intensification of forest management, resulting in lower carbon storage per unit area (Cooper 1983, Dewer 1991), and a gradual increase in the harvest level (Haynes 1990), are also expected. These factors will tend to mitigate against a stable or increasing carbon sink (Turner et al. 1993). Increasing temperatures, atmospheric CO2, and nitrogen deposition could promote higher growth rates (McGuire et al. 1993), but projected climate change is also likely to produce a transient release of forest carbon because carbon sources associated with increasing disturbance rates would be greater than carbon sinks associated with land recovering from disturbance (King and Neilson 1992).

Clearly, land management, and specifically forest management, plays a major role in the global carbon balance. How California chooses to manage its forests has a significant effect on how much carbon dioxide is released and stored. If we are to maintain public and private forests as carbon sinks, which is now more important than ever, continued cumulative disturbance from conversion must be prevented or at least reduced.

C. Conversion Eliminates a Forest's Ability To Sequester Carbon

Studies show that logging can remove ninety-five percent of the non-soil carbon stored in a forest ecosystem and half of this is lost to the atmosphere in the first year (Janisch and Harmon 2002). Skog and Nicholson (2000) reconstructed the fate of forest carbon in the United States from 1910 to 2000. They found that 71 % of the carbon harvested during that period was released into the atmosphere while only 17% was stored in wood products and the remaining 12% was added to landfills. As pointed out in Turner et al. (1995b):

37-5

> After a human disturbance such as a clear cut harvest, ecosystems are a source of carbon to the atmosphere because of the decomposition of large woody debris and other forms of detritus. Later in stand development, as tree bole volume rapidly accumulates, forest ecosystems are strong carbon sinks.

Mackey et al (2008) note:

> The remaining intact natural forests constitute a significant standing stock of carbon that should be protected from carbon-emitting land-use activities. There is substantial potential for carbon sequestration in forest areas that have been logged commercially, if allowed to re-grow undisturbed by further intensive human land-use activities.

Noss (2001) also notes that clear-cutting causes significant habitat fragmentation, which has climate impacts of its own:

Letter 37
Cont'd

37-5 cont'd

> Fragmentation may threaten biodiversity during climate change through several mechanisms, most notably edge effects and isolation of habitat patches. Intact forests maintain a microclimate that is often appreciably different from that in large openings. When a forest is fragmented by logging or other disturbance, sunlight and wind penetrate from forest edges and create strong microclimatic gradients up to several hundred meters wide, although they may vary in severity and depth among regions and forest types (Ranney et al. 1981; Franklin & Forman 1987; Chen & Franklin 1990; Laurance 1991, 2000; Chen et al. 1992; Baker & Dillon 2000). With progressive fragmentation of a landscape, the ratio of edge to interior habitat increases, until the inertia characteristic of mature forests is broken. Fragmented forests will likely demonstrate less resistance and resilience to climate change than intact forests. Another potentially serious impact of fragmentation is its likely effect on species migration. By increasing the isolation of habitats, fragmentation is expected to interfere with the ability of species to track shifting climatic conditions over space and time. Weedy species, including many exotics, with high dispersal capacities may prosper under such conditions, whereas species with poor mobility or sensitive to dispersal barriers will fare poorly.

1. Forest Conversion Prevents The Development Of Carbon Stores

37-6

As discussed earlier, forests are carbon "banks," storing large amounts of carbon for long periods of time. Old growth forests have an especially vast amount of live vegetation including huge trees, large downed logs, a healthy understory and a rich ground layer. Each of these elements stores considerable amounts of carbon and so it follows that ancient forests are the "banks" holding the most carbon. A report from the IPCC has echoed this sentiment pointing out that the best way to preserve the carbon stored in a forest is to preserve the forest itself: "The theoretical maximum carbon storage (saturation) in a forested landscape is attained when all stands are in old-growth state (Nabuurs et al. 2007)."

As discussed in Luyssaert et al (2008): "old-growth forests can continue to accumulate carbon, contrary to the long-standing view that they are carbon neutral." Numerous other studies have likewise shown that old-growth forests continue to sequester carbon from the atmosphere (Desai et al. 2005; Law et al. 2003; Chen et al. 2004; Field and Kaduk 2004; Paw U et al. 2004; Harmon et al. 2004; Grier and Logan 1977; Knohl et al. 2003). Old-growth Douglas fir forests, for example, "show remarkable sequestration of carbon, comparable to many younger forests (Paw U et al. 2004)." And as discussed in Hudiburg et al (2009):[15]

> Decrease in NPP with age was not general across ecoregions, with no marked decline in old stands (200 years old) in some ecoregions. In the absence of stand-replacing disturbance, total landscape carbon stocks could theoretically increase from 3.2 +- 0.34 Pg C to 5.9 +- 1.34 Pg C (a 46% increase) if forests were managed for maximum carbon storage.

[15] Hudiburg, T. Beverly Law, David P. Turner, John Campbell, Dan Donato, and Maureen Duane. 2009. Carbon dynamics of Oregon and Northern California forests and potential land-based carbon storage. *Ecological Applications* 19(1):163–180.

Letter 37 Cont'd

> Trends in NPP with age vary among ecoregions, which suggests caution in generalizing that NPP declines in late succession. Contrary to commonly accepted patterns of biomass stabilization or decline, biomass was still increasing in stands over 300 years old in the Coast Range, the Sierra Nevada and the West Cascades, and in stands over 600 years old in the Klamath Mountains. If forests were managed for maximum carbon sequestration total carbon stocks could theoretically double in the Coast Range, West Cascades, Sierra Nevada, and East Cascades and triple in the Klamath Mountains (Fig. 8).

This is why logging, especially logging that converts forest to a non-forest use, is problematic; it prevents vast amounts of trees from getting older, let alone from reaching the old growth stage, which means that vast amounts of carbon sequestration are foregone as soon as the forest is cut.

37-6 cont'd

But it is not only older trees that hold large amounts of carbon; forest floors in older forests contain significantly more carbon than forest floors of cutover forests (Lecomte et al. 2006; Fredeen et al. 2005; Harmon et al. 1990). Old forests also increase the amount of carbon that is placed into long-term storage in stable forest soils; this carbon is lost through the soil disturbance associated with logging. (Harmon et al. 1990). This can have serious implications for sequestration capabilities as we see from conclusions made by Jandl et al. (2007):

> What is beyond dispute is that the formation of a stable soil [carbon] pool requires time. Avoiding soil disturbances is important for the formation of … crucial elements in the process of [carbon] soil sequestration.

Luyssaert et al (2008) reported similar findings:

> In our model we find that old-growth forests accumulate 0.4 ±0.1 tC ha^{-1} yr^{-1} in their stem biomass and 0.7±0.2 tC ha^{-1} yr^{-1} in coarse woody debris, which implies that about 1.3 ±0.8 tC ha^{-1} yr^{-1} of the sequestered carbon is contained in roots and soil organic matter.

Jandl et al. (2007) states that "forest ecosytems store more than 80% of all terrestrial aboveground C and more than 70% of all soil organic C (Batjes, 1996; Jobbágy and Jackson, 2000; Six et al., 2002a)." The fact that the majority of sequestered carbon is found in roots and organic soil is significant given that logging, specifically clear-cutting, results in the loss of large amounts of soil and therefore, forest floor carbon. This loss is not only due to the direct impacts of logging, but also as a result of the continued erosion and soil degradation that often comes with logging.

37-7

2. The Rate Of Carbon Uptake By Vineyards Can Not Offset Forest Conversion

As stated in *Winrock International. Measuring and Monitoring Plans for Baseline Development and Estimation of Carbon Benefits for Change in Forest Management in Two Regions, March 2004*,[16]

[16] Accessed at http://www.energy.ca.gov/reports/CEC-500-2004-070/CEC-500-2004-070F.PDF

Letter 37 Cont'd

37-7 cont'd

> Mature redwood stands are famous for their enormous stocks of standing biomass and represent perhaps the most massive forests, per unit area, on earth. Measurements of old-growth (>200 years) redwood stands have yielded standing carbon stocks ranging from 1,650 to 1,784 t C equivalent per ha (Hallin, 1934, Westman and Whittaker, 1975, and Fujimori, 1977). Equally impressive is the rate at which carbon is sequestered in growing redwood stands. A 100 year old redwood stand measured by Olson et al (1990) yielded 3,600 cubic meters per ha, equivalent to 648 t C per ha (at specific gravity 0.36 g oven dry biomass/cm3 for second-growth redwood (Markwardt and Wilson, 1935)), or a mean annual carbon increment of 6.48 t C per ha per year.

While this Project will be cutting young redwood forest, not old growth, the fact remains that the Project will prevent forest from growing older and attaining old growth status. Moreover, as noted above, and in the excerpts from *California's forest resources, 2001–2005: five-year Forest Inventory and Analysis report*,[17] redwoods are extremely efficient carbon sequesters, and therefore loss of young trees is problematic because it will prevent these trees from any further sequestration. Vineyards, of course, which even the calculations in the DEIR recognize, offer profoundly less carbon sequestration.[18]

II. THE DEIR MUST ENSURE INFORMED DECISION-MAKING

37-8

CEQA demands, among other things, that enough information be provided regarding a project to allow informed decision-making. Moreover, CEQA requires that the information "be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project."[19] The information provided in the DEIR regarding greenhouse gas impacts falls well short of those standards and is therefore deficient. As stated by the Supreme Court in *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova*, 40 Cal. 4th at 449-50:

> The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences, and, equally important, that the public is assured those consequences have been taken into account.[20]

[17] Christensen, Glenn A.; Campbell, Sally J.; Fried, Jeremy S., tech. eds. 2008. California's forest resources, 2001–2005: five-year Forest Inventory and Analysis report. Gen. Tech. Rep. PNW-GTR-763. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 183 p.

[18] DEIR at Table 4-7

[19] *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 442.

[20] *See also East Peninsula Ed. Council, Inc. v. Palose Verdes Peninsula Unified School Dist.* (1989) 210 Cal.App.3d 155, 174 ("Where failure to comply with the law results in a subversion of the purposes of CEQA by omitting information from the environmental review process, the err is prejudicial"); *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal. 3d 376, 402 ("CEQA's fundamental goal of … informed decision making")

Letter 37 Cont'd

37-9 The DEIR does not even meet provide basic disclosures regarding its calculations. The spreadsheets from the CalFire GHG calculator, as presented in the DEIR Appendix R, fail to present or explain where the values plugged into the calculator originate – it is therefore impossible to critique the numbers. The numbers used are supposed to be site-specific values, usually based on site surveys and inventories of the particular project site, and generated through a forest growth simulation program based on site-specific growing conditions. If the Project proponents have these data they should disclose them in the DEIR; if they do not, then they must explain the origin of the values they provided as input for the CalFire GHG calculator.

37-10 Similarly, no information is provided as to why it can be assumed that the 151 acre "reserve" area will in fact remain an unmanaged forest reserve in perpetuity. Therefore, until the DEIR discloses the information for this assertion, and thereby makes it available for public and agency scrutiny, informed decisionmaking is impossible. The entire GHG analysis of the DEIR is premised on there in fact being a 151 acre reserve and thus, until the information on which that premise is based is disclosed, the DEIR fails as an informational document.

37-11 The DEIR also fails to present in proper light the importance of the fact that 154 acres of trees will no longer be sequestering carbon. This is a big deal, especially when considered in light of the many other conversions that have occurred or are occurring just in Sonoma County alone. As discussed in *Forests: Opportunities for Greenhouse Gas Emission Reduction in Sonoma County*, Michelle Passero, December 2007:

> Over the past several years, Sonoma County has witnessed an increasing threat of forestland conversion to non-forest uses, vineyards in particular. Between 1990 and 1997, at least 1,630 acres of dense oak woodlands were converted to vineyards and from 1989 to 2004, 851 acres of timberland were approved for conversion, primarily to vineyards. More recently, an application to convert approximately 1,700 acres of forestland to vineyards has been submitted to the County, which is still pending. According to Sonoma County's Permit and Resource Management Department, once the time and money has been invested to convert timberland to croplands, these lands are almost never restored to forests.
>
> The climate impacts of this forestland conversion are twofold. First, the conversion of these forestlands results in direct emissions of CO_2 to the atmosphere. Second, the future capacity of the forest to remove additional CO_2 from the atmosphere is significantly diminished because there is very little chance that these lands will be restored to forests based on the history of conversions in Sonoma County. The potential net difference between the overall carbon stored in a vineyard and forestland could be anywhere from 15 tons of carbon per acre to over a thousand tons per acre, depending on several factors, including forest type, age, site class and maturity and management of the vineyard. Such a reduction in overall carbon stocks means net emissions of CO_2 to the atmosphere upon conversion of the forestland to vineyards.

Letter 37 Cont'd

37-12 This Project is not happening in isolation and therefore the DEIR must disclose and address the fact that much of Sonoma County, and surrounding counties, have already been converted to vineyard. In other words, thus far, due the absence of information about other conversions, an adequate cumulative impacts analysis is impossible.

37-13 Finally, while the DEIR shows in its calculations that carbon sequestration will be severely diminished as a result of the Project's conversion of forest to vineyard (*see* Table 4-3), the DEIR precludes informed decision-making by ignoring its own numbers to erroneously conclude that the diminished sequestration is insignificant. Given that the Project will result in loss of sequestration on 154 acres, and given that the forest would have otherwise continued to sequester carbon absent the Project, there will in fact be a significant loss of carbon sequestration as a result of the Project. And yet, as explained in more detail below, the DEIR pretends as though that reality does not exist by hiding behind a "business as usual" argument. To allow informed decisionmaking, the DEIR must present the Project's impacts candidly and correctly which means acknowledging and addressing the complete and permanent loss of sequestration from 154 acres of redwood forest.

Courts have made clear that even small impacts can be cumulatively significant and that this is especially so when dealing with GHG impacts. Moreover, time and again, the lead agency, Cal Fire, has explicitly stated that it believes conversion is a significant GHG problem.[21] Thus, because this Project would result in the complete loss of 154 acres of what the lead agency itself believes is our best weapon against climate change, the DEIR's conclusion that this Project does not have a significant GHG impact is fundamentally flawed.

37-14 It is also important to note that GHG emissions are now more than ever understood to be at a tipping point. In addressing the impacts of the greenhouse gas emissions from this project, it is important to take into account the impacts of ecological tipping points – irreversible changes in the climate expected to occur when atmospheric concentrations of greenhouse gases reach certain levels.[22] The issue of tipping points adds to the need for this project to fully disclose its greenhouse gas impacts. These impacts are adding to the overall problem at a time that the global climate is potentially approaching critical tipping points. In addition, the impacts in the short term would contradict the efforts throughout the state (including in the forest sector) to reduce greenhouse gas emissions to 1990 levels by 2020. This means that the temporal aspects of the carbon emissions associated with the project must be properly addressed.

[21] *See, e.g.,* CAL FIRE's Official Response for THP 04-08-024-AMA

[22] It is well-accepted that there will be tipping points. (Meehl et al. at 775, 2007). Reaching any single tipping point can bring severe economic and ecologic consequences. But perhaps more worrisome is the linkage between tipping points such that reaching one tipping point may in turn trigger a second. An example is the connection between Arctic sea ice and permafrost melt rates; recent evidence indicates that the loss of Arctic sea ice, one tipping point, accelerates permafrost thaw, a second tipping point. (Lawrence et al. 2008). Permafrost refers to permanently frozen land; this surface stores large amounts of carbon. As permafrost thaws due to global warming, it releases carbon, often as methane. (Christensen et al. 2004). Methane has a global warming potential that is approximately 25 times greater than that of carbon dioxide over 100 years. The multiplicative effect of reaching several tipping points on a similar time scale would drastically increase the costs associated with climate change.

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37-14 cont'd

As noted by the US EPA, because "a substantial portion of CO_2 emitted into the atmosphere is not removed by natural processes for millennia, each unit of CO_2 not emitted into the atmosphere avoids essentially permanent climate change on centennial time scales."[23] Likewise, sequestration that is precluded by a project such as this one means that carbon that would have been sequestered in the near term will not be, and that "could result in substantially higher costs of stabilizing CO2 concentrations."[24] In short, it is undoubtedly preferable to remove a given unit of carbon in Year 1 rather than in Year 4, or Year 15, and so on, when it has wrought much more damage.[25]

O'Hare 2009 also explains the importance of accounting for the temporal aspects of GHG impacts:

> In life cycle assessment (LCA), emissions of pollutants are typically summed without regard for when or where these emissions occur. For well-mixed greenhouse gases, it is appropriate to ignore the location of the emissions, as these are global pollutants However, for long-lived pollutants, summing emissions over time masks potentially important differences among processes, especially if effects are measured at a fixed target date. In these situations, early emissions are in the environment longer relative to the target date, and thus cause greater environmental damage.

The best available scientific evidence now indicates that a warming of 2°C is not "safe" and would not prevent dangerous interference with the climate system. In order to avoid dangerous anthropogenic interference (DAI) with the climate system, sound climate analysis must minimize the risk of severe and irreversible outcomes. Stabilizing greenhouse gas emissions at 350 ppm CO2eq would reduce the mean probability of overshooting a 2°C temperature rise to 7 percent. A 350 ppm CO2eq stabilization level is also consistent with that proposed by leading climatologists, who have concluded that in order "to preserve a planet for future generations similar to that in which civilization developed and to which life on Earth is adapted . . . CO2 will need to be reduced from its current 385 ppm to at most 350 ppm."[26] While current CO2 levels exceed 350 ppm, a pathway toward 350 ppm is possible though the rapid phase-out of coal

[23] 74 Fed. Reg. 49589

[24] 74 Fed. Reg. 49613

[25] Numerous studies support the conclusion that delay in GHG emission reductions causes increasing damages. *See, e.g.*, Hans J. Schellnhuber et. al, , *Solving the Climate Dilemma: The Budget Approach,* German Advisory Council on Global Change 15 (2009), *available at* http://www.wbgu.de/wbgu_sn2009_en.html (delay will result in almost unachievable reduction requirements); Sir Nicholas Stern, *Stern Review on the Economics of Climate Change* xvii, Cambridge University Press (2006), available at http://www.sternreview.org.uk (last visited November 15, 2009) ("[t]he social cost of carbon is likely to increase steadily over time because marginal damages increase with the stock of GHGs in the atmosphere, an that stock rises over time"); Myles Allen et al., *The Exit Strategy*, Nature Reports Vol 3 (May 2009), *available at* www.nature.com/reports/climatechange (later GHG emission reductions are more risky, expensive and disruptive than earlier reductions).

[26] Hansen, J. et al., *Target Atmospheric CO2: Where Should Humanity Aim?* Open Atmospheric Sci. J. 217, 226 (2008)

Letter 37 Cont'd

emissions, improved agricultural and forestry practices, and possible future capture of CO2 from biomass power plants.[27] Time is of the essence when addressing GHG emissions, and therefore, timing must be properly considered and accounted for when determining and addressing the GHG impcts associated with a project. Here, timing must be properly considered and accounted for when determining and addressing the impacts associated with the loss of 154 acres of forest. Carbon sequestration foregone, especially in the short term, and carbon emitted, especially in the short term, is significant, and the DEIR fails to adequately address that fact.

37-14 cont'd

III. THE DEIR MUST ADEQUATELY IDENTIFY AND QUANTIFY ALL GREENHOUSE GAS IMPACTS ASSOCIATED WITH THE PROJECT

The removal of a forest in the name of conversion results in the direct loss of that forest's carbon as well as a loss of future carbon sequestration by that forest. In addition, there is also loss of carbon from a) soil disturbance, b) loss of understory, c) loss of litter, debris, and downed wood, d) burning or decay of leftover slash material, and e) emissions associated with the conversion/logging (e.g., gray emissions). All of these impacts must be quantified in order to do an accurate assessment of the carbon implications of the loss of 154 acres of forest.

37-15

The DEIR must provide calculations for the lost sequestration of the cut-down forest which here is a redwood/Douglas fir forest.[28] Just as importantly, when doing the calculations the DEIR must rely on the existing environmental conditions, not a hypothetical "business as usual" baseline. As explicitly admitted in the DEIR, this Project is attempting to avoid its GHG responsibilities by estimating "the difference between business as usual activities under current use for timber management and the effects of conversion . . . ."[29] The DEIR similarly states, "[t]he 'No Project – Timber Resource Management' analysis shows the amount of carbon sequestered in the 305 acres of forestland area (on the entire 324 acre property) if the conversion were not to occur and a periodic harvest be conducted as was the case in the past (i.e. business as usual)."[30]

37-16

[27] *Id.*

[28] This is especially true given that redwood trees "are famous for their enormous stocks of standing biomass and represent perhaps the most massive forests, per unit area, on earth. Measurements of old-growth (>200 years) redwood stands have yielded standing carbon stocks ranging from 1,650 to 1,784 t C equivalent per ha (Hallin, 1934, Westman and Whittaker, 1975, and Fujimori, 1977). Equally impressive is the rate at which carbon is sequestered in growing redwood stands. A 100 year old redwood stand measured by Olson et al (1990) yielded 3,600 cubic meters per ha, equivalent to 648 t C per ha (at specific gravity 0.36 g oven dry biomass/cm3 for second-growth redwood (Markwardt and Wilson, 1935)), or a mean annual carbon increment of 6.48 t C per ha per year." *Winrock International. Measuring and Monitoring Plans for Baseline Development and Estimation of Carbon Benefits for Change in Forest Management in Two Regions, March 2004. Accessed at http://www.energy.ca.gov/reports/CEC-500-2004-070/CEC-500-2004-070F.PDF on July 25, 2009.*
See also Figures 34, 40, 41and Tables 24, 25, 29 in Christensen, Glenn A.; Campbell, Sally J.; Fried, Jeremy S., tech. eds. 2008. California's forest resources, 2001–2005: five-year Forest Inventory and Analysis report. Gen. Tech. Rep. PNW-GTR-763. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 183 p.

[29] DEIR at 4-1

[30] DEIR at 4-3

Letter 37 Cont'd

37-16 cont'd

The "environmental setting" of a conversion—specifically, the physical environmental conditions in the area where the conversion will take place—is the "baseline physical conditions" against which Cal Fire must measure the significance of the conversion's effects.[31] As noted in Guideline 15064.4, in reaching a significance determination, "a lead agency should consider . . . [t]he extent to which the project may increase or reduce greenhouse gas emissions *as compared to the existing environmental setting* . . . ." ([emphasis added].) The Final Statement of Reasons for the CEQA GHG Guidelines explains further: "[15064.4(b)'s] reference to the 'existing environmental setting' reflects existing law requiring that impacts be compared to the environment as it currently exists."[32]

The problem with the DEIR's approach is that it masks the actual impacts of the Project. That is why, as many California courts have explained, a "business as usual" approach can not be used in place of "existing environmental conditions." The Supreme Court recently affirmed "a long line of Court of Appeal decisions" holding "that the impacts of a proposed project are ordinarily to be compared to the actual environmental conditions existing at the time of CEQA analysis, rather than to allowable conditions defined by a plan or regulatory framework."[33] As summarized in one of the appellate decisions cited with approval by the Supreme Court, the impacts of a project must be compared to "real conditions on the ground," not "hypothetical situations."[34]

Many of the Court of Appeal decisions affirmed by the Supreme Court are further instructive on this point. For example, in *Woodward Park Homeowners Ass'n v. City of Fresno* (2007) 150 Cal.App.4th 683, the Court held that an EIR for a development project was faulty because its "bottom-line conclusions" emphasized the minimal difference between the proposed project and a hypothetical project that could be built under the city's general plan, rather than the much greater difference between the project and the presently "vacant lot" where it would be built.[35] A CEQA document that compares a project's impacts to "hypothetical conditions contemplated by [an] existing plan and not with actual existing physical conditions . . . can only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts which would result."[36]

Here, as in *Woodward Park* and the other cases affirmed by the Supreme Court in *Communities for a Better Environment*, the Project's' reliance on so-called business as usual

[31] CEQA Guidelines, § 15125, subd. (a)

[32] California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97 (Dec. 2009) at 24, *available at* http://ceres.ca.gov/ceqa/guidelines/)

[33] *Communities for a Better Env't v. S. Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 321

[34] *Save Our Peninsula Committee v. Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 121

[35] *Id.* at 707-09; *accord City of Carmel-by-the-Sea v. Bd. of Supervisors* (1986) 183 Cal.App.3d 229, 246–247; *Envtl. Planning & Info. Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 354, 357–358

[36] *Woodward Park*, 150 Cal.App.4th at 709

Letter 37 Cont'd

serves only to mislead the public and decision-makers about the conversion's real impacts. Indeed, this is exactly the type of illusory and misleading comparison that the Supreme Court has found to be "at direct odds with CEQA's intent."[37] Thus, until the DEIR is corrected, and calculations and their associated conclusions are all based on the existing environmental conclusions, the DEIR will fail as a matter of law.

37-16 cont'd

Not only does the Project DEIR violate CEQA's intent by relying on a "business as usual" approach instead of existing environmental conditions, the DEIR does not even provide any basis to support what it puts forth as "business as usual." No documentation whatsoever is provided on which to base the "business as usual" logging and associated sequestration rates. In other words, the DEIR offers no documentation to show that there is currently an approved timber harvest program on the project site that would lead to a sequestration rate of .468 for the current site. Nor does the DEIR provide any documentation to demonstrate that such an approved harvest program is in fact being implemented. Consequently, the proposed .468 sequestration rate has no basis in reality.

37-17

The proper approach would be to acknowledge, as the DEIR in fact does (but crosses out) on page 4-1, that "[o]nsite vegetation is largely composed of second-growth forest; therefore, the reforestation sequestration rates currently apply." That means of course that the .468 rate should be dropped from the DEIR and the sequestration rate of 1.73 that is provided for a regenerating/growing forest should apply to the forested area—all 305 acres—because that is the rate that represents the existing environmental conditions (if in fact the 1.73 is accurate). Once these existing environmental conditions are properly acknowledged, it becomes plain that the "reserve" area will not actually do what the DEIR wants it to do – it will not make up for the loss of the converted site (154 acres) as the DEIR asserts in order to reach its conclusion of insignificant GHG impacts.[38] Again, if the 154 acres area is not converted, it would continue to sequester carbon and that is what must be properly addressed. There is a vast difference between the sequestration capacity of a young to middle aged redwood forest and the sequestration capacity of a vineyard and that difference has thus far been ignored under an improper "business as usual" approach. In short, the so-called "reserve" is not a viable means for addressing the GHG impacts of the 154 acre conversion, and therefore, the DEIR plainly violates CEQA because it does appropriately identify and quantify the GHG impacts associated with the Project.

37-18

The DEIR also fails to properly explain some of the information it presents regarding carbon sources. For instance, the DEIR asserts that "since the project area is considerably less stocked and younger on average than the average stand estimated by the FIA data, we have assumed that the standing dead and lying dead pools are 30 to 40 percent of those predicted by FIA, or 2 Mg C per acre (i.e., 0.3 * 6.42) and 4 Mg C per acre (0.4 * 10.27) respectively. The percentages of total carbon for the other pools were then adjusted slightly to account for these changes."[39] This

37-19

[37] *Communities for a Better Env't*, 48 Cal.4th at 322

[38] DEIR at 4-22 ("the proposed project would have a less than- significant impact on climate change")

[39] DEIR at 4-4

Letter 37 Cont'd

37-19 cont'd assertion has no basis in fact. The standing dead and lying dead carbon pools are based on past history of the site, not the current standing tree stocks.

Similarly, in regard to soil, the DEIR states that "[b]ecause deep ripping is not proposed as part of this project, impacts to mineral carbon would be minimal."[40] "For this analysis, it is estimated that 25% of the soil carbon will be lost following conversion, which amounts to a slightly higher estimate of carbon loss than would be indicated by Murty et. al."[41] These are unjustified assertions. Murty et al 2002 investigated soil carbon levels in forests compared to established agricultural pasture lands. It did not look at vineyards or orchards, and did not attempt to characterize immediate carbon losses associated with forest clearing. Rather, it looked at soil carbon levels after multiple seasons of growth, tilling, and sequestration in agricultural pasture lands. This is not applicable to the Project, and fails entirely to account for immediate emissions associated with forest clearing. A recent review of the scientific literature written for the Climate Action Reserve titled "Accounting for Carbon in Soils" states,

37-20

> The most important factor for soil carbon content appears to be sampling time after harvest . . . . Yet a review of multiple studies that examined temporal dynamics after harvest reports that initially, soil carbon declines almost universally regardless of harvest type, by as much as 40%. However, within 40-60 years, depending on the dominant tree species, there is a return to previous soil carbon levels, with higher productivity forests returning quicker than low-productivity northern forests and forests that are found on nutrient-poor soils (Yanai et al., 2003). These results suggest that systems with rotation lengths of less than 50 years are likely to become net sources of carbon.
>
> From the range of studies examined, we see that potential declines in soil carbon following harvest can be as high as 60%.[42]

In this case, there is no rotation length, as the trees will not regenerate under the Project, and the emissions are not going to be offset by the annual input of forest litter and decomposing trees that would occur in an existing forest.

37-21 Finally, in regard to understory, the DEIR asserts that "The CAL FIRE GHG Calculator estimates losses from the live tree carbon pool >8" DBH, as well as approximately 2 Mg C of carbon losses from understory vegetation (understory and live tree <8" DBH pools from Table 4-5 above) removed as a part of site preparation. The CAL FIRE GHG Calculator thus already accounts for approximately 48% of the potential losses from the understory and live tree <8" carbon pools"[43]; "Because the CAL FIRE GHG Calculator already accounts for 48% of the

[40] DEIR at 4-5

[41] DEIR 4-6

[42] CAR at 23, 36

[43] DEIR at 4-5

Letter 37 Cont'd

potential losses from the understory and live tree < 8" DBH pools, these pools are only reduced by 52% in Table 4-6."[44] The DEIR is confusing and comparing two estimates from different sources, using differing and overlapping definitions of these carbon pools, and is largely dismissing the emissions as a result. The DEIR thus improperly uses and merges portions of disparate non-comparable regional FIA averages. Rather than arbitrarily prorating the estimates of these carbon pools from region-wide averages, the DEIR should provide estimates based on the characteristics of the actual site.

37-21 cont'd

IV. THE DEIR MUST ANALYZE AND ADOPT ALL FEASIBLE MITIGATION MEASURES AND ALTERNATIVES TO REDUCE ITS CARBON IMPACT

In order to comply with CEQA, CAL FIRE "must determine whether any of the possible significant environmental impacts of the project will, in fact, be significant."[45] A major deficiency of the DEIR is its failure to properly acknowledge and discuss a) what will be foregone as a result of the loss of 154 acres of forest, and b) what will be emitted as a result of the loss of 154 acres of forest. While the DEIR does provide calculations which show that carbon sequestration will be severely diminished, and that there will be serious impacts as a result of the Project, the DEIR then fails to take the next logical step of avoiding and/or mitigating for this significant impact. Instead, with almost no explanation, the DEIR asserts that its GHG impacts are insignificant. As explained above, that conclusion is without merit, and therefore, the DEIR is unlawful.

37-22

Even by its own calculations, the DEIR shows that the Project would result in significant GHG impacts. The DEIR's calculations demonstrate that foregone sequestration will be substantial – if left alone, the forest area being proposed for conversion would sequester at a rate of 1.73.[46] The vineyard on the other hand is much much lower—see table 4-7. Moreover, the DEIR notes that significant carbon will be emitted from vehicles as a result of the Project.[47] Together, this means that by the DEIR's own findings, this Project would result in substantial loss of the area's sequestration capabilities as well as substantial GHG emissions as a result of vehicles, etc. Finally, the GHG impacts would be even more serious if the DEIR adequately addressed soil, understory, and other carbon pools as explained above.

37-23

The DEIR concludes that "in the context of statewide, nationwide, or global emissions, and considering the carbon sequestration that would continue to occur once the vineyards are planted, the proposed project's incremental contribution … would not be cumulatively considerable. Therefore, the proposed project would have a ***less-than-significant*** impact on climate change."[48] This makes no sense given that the project will indeed lead to substantially diminished

37-24

[44] DEIR at 4-6

[45] *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal. App. 4th 1099, 1109

[46] *See* DEIR Table 4-3

[47] *See* DEIR 4-13, 4-16

[48] DEIR at 4-17 (emphasis in original)

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37-24 cont'd

sequestration as well as greater GHG emissions than would occur absent the Project. Again, with GHG impacts, even small impacts are significant from a cumulative perspective in light of the very serious nature of the issue – millions of sources are combining to create the GHG problem and while some are small and some are large, all are significant because they each further intensify the problem. Thus, any source that adds to the problem is significant because at this point in time, reductions are urgently necessary. Regardless, conversion, by definition, means the complete loss of a forest – there is no greater impact than that and therefore any conversion must be avoided or mitigated.

37-25

The DEIR exacerbates its GHG problems by failing to explain how it determined its GHG significance threshold. Simply stating that "in the context of statewide, nationwide, or global emissions, and considering the carbon sequestration that would continue to occur once the vineyards are planted, the proposed project's incremental contribution … would not be cumulatively considerable" falls far short of CEQA's mandate. As already discussed, projects cannot, as this DEIR attempts to do, hide behind the fact that their GHG impacts are individually small when examined "in the context of statewide, nationwide, or global emissions." On the contrary, a cumulative impacts analysis under CEQA demands that even very small impacts be considered significant, and hence, mitigated, if they are further contributing to an already serious problem as is the situation with GHGs. Again, climate change is likely *the* most pressing cumulative impacts problem of our time – emissions from numerous sources are combining to create a dire situation, and if each small source was allowed to hide behind claims of "de minimis" impacts, the problem would go unsolved. This is why courts have consistently rejected the notion that the incremental impact of a project is not cumulatively considerable when it is so small that it would make only a *de minimis* contribution to the problem as a whole.[49] Moreover, CEQA, requires agencies to determine the significance of the DEIR's impacts with or without established significance thresholds. As noted in the CAPCOA white paper on CEQA and Climate Change, "[t]he absence of a threshold does not in any way relieve agencies of their obligations to address GHG emissions from projects under CEQA."[50]

37-26

The failure to immediately and drastically reduce emissions from existing levels will result in profound and devastating consequences for the economy, public health, natural resources, and the environment. Consequently, only thresholds that are highly effective at reducing emissions from new projects will ensure that new projects do not have significant cumulative effects on global warming. The California Global Warming Solutions Act of 2006 (AB 32) recognized that "global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California" and required that existing levels of greenhouse gases be reduced to 1990 levels by 2020.[51] AB 32 establishes that existing greenhouse gas

[49] *See, e.g., Communities for a Better Env't v. California Resources Agency* (2002) 103 Cal.App.4th 98, 117

[50] CAPCOA 2008 at 23. *See also* OPR Technical Advisory document, p. 4 ("Even in the absence of clearly defined thresholds [of significance] for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact.")

[51] Health & Safety Code §§ 38501(a), 38550

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37-26 cont'd

levels are unacceptable and must be substantially reduced within a fixed timeframe. Put another way, any additional emissions that contribute to existing levels will frustrate California's ability to meet its ambitious and critical emissions reduction mandate. Thus, in order to account for the fact that any additional emissions are problematic, CAL FIRE should adopt a zero significance threshold for any Project's greenhouse gas emissions. As stated in *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review*, from the Governor's Office of Planning and Research:

> When assessing whether a Project's effects on climate change are cumulatively considerable, even though its GHG contribution may be individually limited, the lead agency must consider the impact of the project when viewed in connection with the effects of past, current, and probable future projects . . . . Lead agencies should not dismiss a proposed project's direct and/or indirect climate change impacts without careful consideration, supported by substantial evidence. Documentation of available information and analysis should be provided for any project that may significantly contribute new GHG emissions, either individually or cumulatively, directly or indirectly (e.g., transportation impacts).[52]

Regardless of whether a zero threshold is adopted, the fact remains that even by its own calculations, this Project's impacts are severe in light of the lost sequestration; hence, while the impacts may be small "in the context of statewide, nationwide, or global emissions," they are still cumulatively significant.

37-27

The failure to recognize the cumulatively significant GHG impacts from this Project directly leads to the failure to consider feasible alternatives and mitigation measures to reduce this cumulatively significant impact. CEQA requires that agencies "mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so."[53] A rigorous analysis of reasonable alternatives to the project must be analyzed to comply with this strict mandate. "Without meaningful analysis of alternatives in the EIR, neither courts nor the public can fulfill their proper roles in the CEQA process."[54] Moreover, "[a] potential alternative should not be excluded from consideration merely because it would impede to some degree the attainment of the project objectives, or would be more costly."[55] An analysis of alternatives should also quantify the estimated greenhouse gas emissions resulting from each proposed alternative.

Here, the DEIR neglects to discuss "at least one alternative that would ensure that the [agency] contributes to a lower-carbon future." Potential alternatives include one that would not result in

[52] *See also Communities for Better Env't v. California Resources Agency* (2002) 103 Cal. App. 4th 98, 120 ("the greater the existing environmental problems are, the lower the threshold for treating a project's contribution to cumulative impacts as significant")

[53] Pub. Res. Code § 21002.1(b)

[54] *Laurel Heights Improvement Ass'n v. Regents of University of California* (1988) 47 Cal.3d 376, 404

[55] *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1456-57 (quotations omitted)

Letter 37 Cont'd

37-27 cont'd

conversion of existing forest or would result in much less conversion.[56] A recent court decision also makes clear that just because a project proponent wishes to proceed under a certain scenario does not mean the CEQA analysis must accommodate that desire. Rather, feasible alternatives must be considered regardless of the project proponent's position on the alternatives. For instance, in *Preservation Action Council v City of San Jose* (2006) 141 Cal .App. 4th 1355, the defendant relied heavily on the real parties' project objectives in order to reject an alternative. The court found that "the project objectives in the DEIR appear unnecessarily restrictive and inflexible."[57] "[T]he willingness of the applicant to accept a feasible alternative . . . is no more relevant than the financial ability of the applicant to complete the alternative. To define feasible [in such fashion] would render CEQA meaningless."[58] This same principle was reiterated in *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal. App. 4th 1437, 1460, where the court found that "the willingness or unwillingness of a project proponent to accept an otherwise feasible alternative is not a relevant consideration." This was so despite the project proponent's explicit unwillingness to accept a proposed alternative.[59] The Court found that the alternative should have been analyzed regardless, and noted that an "applicant's feeling about an alternative cannot substitute for the required facts and independent reasoning."[60] Thus, CAL FIRE has an obligation to assess a lower carbon alternative. This is also necessary in order to allow for informed decision-making. In the words of the *Save Round Valley* Court, "the agency preparing the EIR may not simply accept the proponent's assertions about an alternative."[61] Consequently, thus far, the DEIR's analysis of alternatives is deficient.

37-28

In addition to thoroughly evaluating project alternatives, "the EIR must propose and describe mitigation measures that will minimize the significant environmental effects that the EIR has identified."[62] Mitigation of a project's significant impacts is one of the "most important" functions of CEQA.[63] Importantly, mitigation measures must be "fully enforceable through permit conditions, agreements, or other measures" so "that feasible mitigation measures will actually be implemented as a condition of development."[64]

[56] The DEIR does include an alternative that would result in less conversion than the proposed Project. However, there is no discussion whatsoever of how this alternative would avoid or mitigate GHG impacts. Until such a discussion is included, the DEIR's alternatives are inadequate from a GHG perspective.

[57] *Id.* at 1360

[58] *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 601

[59] *Id.*

[60] *Id.* at 1458, quoting *Preservation Action Council,* 141Cal.App.4th at 1356

[61] *Id.* at 1460

[62] *Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 360

[63] *Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d 30, 41

[64] *Federation of Hillside & Canyon Ass'ns v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261

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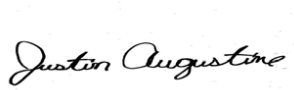
37-29 In sum, there is simply no escaping the need for immediate GHG reductions and the DEIR offers no alternatives or mitigation for its substantial GHG impacts. A vineyard, as even the DEIR admits in its calculations, is far different than a redwood forest in regard to sequestration capacity and therefore it is obvious that this Project will not only lead to significant emissions in terms of carbon lost from the cut, but will also lead to a significant loss of sequestration capacity. Therefore, until the DEIR acknowledges the significance of its GHG impacts and appropriately avoids or mitigates them, this Project will be in violation of CEQA.

CONCLUSION

The Fairfax DEIR must be revised in light of its deficiencies. Until all issues discussed above are adequately addressed and the DEIR re-circulated for comments, the proposed harvest is unlawful.

Thank you for your consideration of these comments. Please contact us if you have any questions.

Sincerely,



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LETTER 37: JUSTIN AUGUSTINE - CENTER FOR BIOLOGICAL DIVERSITY

Response to Comment 37-1

The comment is an introductory paragraph, and does not address the adequacy of the DEIR.

Response to Comment 37-2

Consistent with CEQA Guidelines, CAL FIRE has calculated GHG emissions from the Fairfax Conversion project, which is included in its revised form in Chapter 4, *Cumulative Impacts*, of the Partially Recirculated DEIR (RDEIR).

Response to Comment 37-3

Please see Response to Comment 6-5.

Response to Comment 37-4

The comment provides background information and does not address the adequacy of the EIR.

Response to Comment 37-5

The comment is informational and does not address the adequacy of the EIR.

Response to Comment 37-6

The comment is informational and does not address the adequacy of the EIR.

Response to Comment 37-7

The comment is informational and does not address the adequacy of the EIR.

Response to Comment 37-8

The comment expresses general concerns regarding the presentation of information in the EIR. Specific concerns are provided in the comments that follow. See the responses below to the more specific comments.

Response to Comment 37-9

Under CEQA, the EIR must provide sufficient analysis and factual support to serve as an informational document and permit full assessment of significant environmental impacts. (CEQA Guidelines, §§ 15147, 15120, 15151, 15204, subd. (a).) These requirements do not compel the lead agency to circulate all the information it relies upon to reach its conclusions, and the level of technical detail provided in this EIR more than satisfies CEQA's informational standards. (CEQA Guidelines, § 15147; *Anderson First Coalition v. City of Anderson* (2005)

130 Cal.App.4th 1173, 1190-1191 [rejecting claim that EIR should have included additional information supporting agency's hydrology analysis, such as rainfall rates, hydraulic routing, and other drainage data].) Highly technical and specialized analysis need not be included in the document, and doing so would require many volumes, often for a relatively small piece of information. Furthermore, the lead agency is permitted to rely on the expertise of its staff in identifying the appropriate methodology for analyzing a potential impact. (*Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th1383, 1397.) The EIR includes sufficient data to enable the public and reviewing agencies to understand the project's environmental effects and fully serves its purpose as an informational document.

The values that were put into the CAL FIRE GHG calculator are site-specific values based upon an ocular estimation of the resources on-site. The forester making these estimations has been a Registered Professional Forester for over 13 years and has extensive experience estimating the volumes of timber resources on harvest areas. The forester making these estimations has also spent approximately 100 hours on-site and is very familiar with the forest resources of the project area.

Response to Comment 37-10

The permanent deed restriction will prohibit timber harvesting within the restricted areas and these areas will be fenced and retained as open space and wildlife habitat, as reflected in the updated project description language included on page 2-2 of Chapter 2, *Revisions to the DEIR Text*, of this Final EIR. The only operations proposed within the preserved areas will be the construction of mitigation wetlands, planting of riparian habitat and placement of large woody debris following the timber harvest on the conversion areas.

Response to Comment 37-11

Contrary to the comment, the DEIR does not fail to present the importance of the fact that 154 acres of trees will no longer be sequestering carbon on the project site. This fact is accounted for in the GHG modeling conducted for the Fairfax Conversion Project (see Tables 4-3 and 4-7 of the *Cumulative Impacts* Chapter of the Fairfax Conversion Partially Recirculated DEIR as well as Response to Comment 6-8 of this Final EIR). For further details see Response to Comment 6-8.

Response to Comment 37-12

The parameters for analysis of cumulative impacts under CEQA are set forth in section 15130 of the CEQA Guidelines, which states that evaluation of cumulative impacts requires a "list" or "summary of projections" to provide the framework of projects that constitute the cumulative scenario. (CEQA Guidelines, § 15130, subd. (b).) CEQA Guidelines section 15130 describes the requirement to evaluate a proposed project's potential to contribute to cumulative impacts in the project or program area. "Cumulative impact" refers to the combined effect of "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (CEQA Guidelines, § 15355.) CEQA requires the lead agency to consider the project in combination with the effects of all past, present, and reasonably foreseeable future projects to determine the cumulative effect on the region because, even though

a single project may have individually minor impacts, when considered together with other projects, the effects may be collectively significant. A cumulative impact, then, is the additive effect of all projects in the same geographic area.

These traditional rules of CEQA analysis must be applied to the type of cumulative impact at hand in accordance with the rule of reason, however. (CEQA Guidelines, § 15130, subd. (b) [the EIR's discussion of cumulative impacts "should be guided by the standards of practicality and reasonableness"].) While the combination of GHG emissions from past, present, and future projects contributes to the phenomenon of global climate change and its associated environmental impacts, because this issue is global in nature, the "list" or "summary of projections" of past, present, and future projects would necessarily include projects throughout the world.

As a result of this methodological complexity, air districts that have actually set quantitative thresholds of significance for GHG emissions, such as the Bay Area Air Quality Management District, have not developed a separate cumulative impact threshold. The few quantitative thresholds that have been set to date by local air districts are project-level thresholds with the recognition that GHG emissions are a cumulative issue. For example, the California Air Pollution Control Officers' Association ("CAPCOA") document on CEQA and Climate Change states that "…GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective."[1]

Therefore, the Fairfax Conversion GHG/climate change analysis contained in the Cumulative Impacts chapter of the Fairfax Conversion Draft EIR, as updated in the RDEIR, is consistent with the standard approach to evaluating GHG impacts, which recognizes that climate change is a global issue and each project contributes individually to the overall cumulative generation of GHGs throughout the world, and as a result each project must be assessed as such (i.e., at the project-level). The commenter's assertion that this approach understates project impacts is incorrect; on the contrary, as shown in the comprehensive analysis of the project's potential impacts related to climate change in the Draft EIR and RDEIR, the methodology likely overstates project impacts.

The local scale or even regional scale (in this case, Sonoma County) is not the proper cumulative setting of climate change, as suggested by the commenter, but the global scale. Given the inability to assess the project in light of all past, present, and future projects on a global scale, air districts and CAPCOA have developed, and are continuing to develop, methodologies and thresholds that take this complexity into account and accordingly enable the lead agency to focus on a project's individual contribution to this global issue.

Response to Comment 37-13

Please see Responses to Comments 37-3, 37-11 and 37-16.

[1] CAPCOA, *CEQA and Climate Change*, January 2008, page 35.

Response to Comment 37-14

Please see Response to Comment 6-10.

Response to Comment 37-15

Please see Response to Comment 6-8.

Response to Comment 37-16

The commenter asserts that the EIR's GHG analysis uses a hypothetical baseline to assess significance of impacts rather than existing physical environmental conditions, citing CEQA Guidelines section 15064.4 and cases relating to CEQA baseline requirements.

The commenter is correct that under CEQA, the EIR must include a description of the physical environmental conditions in the vicinity of the project, from both a local and regional perspective, and this description of the project's environmental setting will normally constitute the baseline physical conditions by which the lead agency determines whether an impact is significant. (CEQA Guidelines, § 15125.) The EIR describes the project's environmental setting in compliance with CEQA, including existing physical conditions related to emission and sequestration of greenhouse gases. (DEIR, pp. 4-13 – 4-17; RDEIR, pp. 4-1 — 4-22.)

The amended CEQA Guidelines do not create new CEQA concepts and instead apply the traditional rules of CEQA to GHG analysis. (See, e.g., CEQA Guidelines, §§ 15064, 15064.4.) The new Guidelines added two questions to the environmental checklist, which inquire as to whether the project would (1) "generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment"; or (2) "conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases." (CEQA Guidelines, Appendix G, § VII (Environmental Checklist, Greenhouse Gas Emissions).) The CEQA Guidelines thus suggest a two-pronged approach to determining impact significance, with both quantitative and qualitative components considering factors such as whether there is any increase or decrease in emissions, whether there is any applicable threshold, and whether the project is consistent with applicable plans. The EIR for the proposed project fully complies with these Guidelines by assessing the impacts of the project in relation to the existing baseline physical conditions, as well as in relation to the No Project scenario and the cumulative scenario, as CEQA requires. (CEQA Guidelines, §§ 15125, 15126.6, subd. (e), 15130; see also Response to Comment 37-17.)

As explained on page 4-13 of the original global climate change analysis prepared for the Fairfax Conversion Project in Impact 4-3 of Chapter 4, *Cumulative Impacts*, the USEPA document entitled *Greenhouse Gas Mitigation Potential in U.S. Forestry and Agriculture*, states that reforestation of previously harvested lands results in sequestration of approximately 1.1 to 7.7 tons of CO_2 per acre annually.[2] These USEPA rates do not account for soil carbon. Utilizing these above-ground rates, the DEIR climate change analysis calculated the amount of above-ground carbon sequestration that

[2] USEPA, *Greenhouse Gas Mitigation Potential in U.S. Forestry and Agriculture*; 2005. Accessed on www.epa.gov June 2007, cf. Table 2-1.

could be expected to result from the existing physical conditions of the project site (see Table 4-3 of Chapter 4 of the June 2009 DEIR). Per Table 4-3, using the low carbon sequestration estimate of 1.1 tons CO_2 per acre per year, the 305 acres of on-site forest would result in a total of 335.5 t CO_2 per year, while the high estimate of 7.7 t CO_2 per acre per year would result in a total of 2,348.5 t CO_2 per year. To make these sequestration rates and on-site annual sequestration estimates comparable to those included in the updated sequestration rates and on-site estimates included in Table 4-7 of the RDEIR, the unit of measurement needs to be converted from tons CO_2 per acre per year to metric tons (mt) of C per acre per year, as follows:

<u>USEPA carbon sequestration rates for existing physical conditions = 305-acre on-site forest</u>
Low estimate: 1.1 tons CO_2 per acre per year[3] ⟹ 0.30 mt C per acre per year
High estimate: 7.7 tons CO_2 per acre per year[4] ⟹ 2.1 mt C per acre per year

<u>Annual carbon sequestration estimates for existing physical conditions (i.e., 305-acre on-site forest) using converted rates</u>
Low estimate: 305 forested acres x 0.30 mt C per acre per year ⟹ 91.5 mt C per acre per year
High estimate: 305 forested acres x 2.1 mt C per acre per year ⟹ 640.5 mt C per acre per year

Given the C sequestration range provided by USEPA, it is necessary to determine more precisely what the appropriate sequestration rate would be for the existing 305 acres of forest on the Fairfax Conversion project site. In order to do this, a 1-year model run was conducted for the 305 forest acres using CAL FIRE's Greenhouse Gas Emissions Calculator. According to this 1-year run, the estimated per acre annual C sequestration rate for the existing 305-acre forest would be 1.37 metric tons C (per acre per year). This calculated rate is within the overall range provided by USEPA for reforestation of 0.30 to 2.1 mt C per acre per year. Footnote "d" to USEPA Table 2-1 states that the higher value is for Douglas fir in Pacific Northwest. Given that the Fairfax Conversion project site is characterized by a mix of young-growth redwood, Douglas-fir and mixed hardwoods, the 1.37 mt C per acre per year sequestration rate is reasonable.

Using the calculated annual C sequestration rate of 1.37 mt C for the 305-acre existing forest, this forest would sequester a total of 417.9 mt C per year. In comparison, as shown in Table 4-7 of the RDEIR, the 305-acre forest area under the "Business-as-Usual" or "No Project – Timber Resource Management Alternative" would sequester a total of 142.88 mt C per year at a rate of 0.468 mt C per acre per year. *In summary, the existing 305-acre forest would be expected to sequester 275 mt C per year more (standing live carbon pool for trees 8" DBH and larger) than that which was predicted for the "Business-as-Usual/No Project – Timber Resource Management Alternative" scenario.* The "Business-as-Usual" rate of sequestration for the 305-acre forest area is lower than that which is predicted for the existing physical conditions because the former rate assumes periodic harvest over a 100-year period, and the concomitant release of carbon attributable to these activities, as demonstrated in Table 4-7.

The reason why the updated climate change analysis in the RDEIR focused largely on the comparison of the project's sequestration potential to the sequestration potential expected to occur under a "Business-as-Usual" scenario is because this is a more realistic comparison in light of the

[3] 1 metric ton carbon equivalent = 3.667 metric tons of CO_2 equivalent.
[4] 1 metric ton carbon equivalent = 3.667 metric tons of CO_2 equivalent.

fact that the historic use of the project site includes periodic harvest and such land use activities are allowable under the current land use and zoning designation of Resource and Rural Development (RRD). Notwithstanding these factors, it has been shown that the original climate change analysis did include calculations showing a range of sequestration rates and estimates for the existing 305-acre forest. Using these previously included rates, and after applying some unit conversions for comparison purposes with the sequestration rates included in RDEIR Table 4-7, it has been shown that the existing 305-acre forest could be expected to sequester a total of 417.9 mt C per year. Per Table 4-7, this total would be increased to 478 mt C per year upon accounting for forest soil carbon. Using the current forest sequestration rate of 1.367 mt C per year and the vineyard rates included in Table 4-7, the project would be expected to sequester approximately 186.8 mt C per year in the near-term (as compared to 241.77 mt C per year in the long-term – cf. Table 4-7). Therefore, whereas, the project in the long-term (i.e., over 100 years when 151-acre forest reserve is allowed to mature) would sequester 39.11 mt C per year more than the "Business-as-Usual" scenario (see Table 4-7), the project in the near-term (i.e., 3-5 years upon vineyard establishment and assuming a lower sequestration rate for the 151-acre forest reserve) would sequester approximately 290 mt C per year less than the existing 305-acre forest.

This would not result in a significant impact. Page 4-20 of the Cumulative Impacts chapter of the Partially Recirculated DEIR explains that the project (i.e., 151-acre forest reserve and established vineyard) would result in an increase in carbon sequestration over "business-as-usual" conditions of 39.11 metric tons of carbon per year (144 metric tons of CO_2). However, once the CO_2 emissions resulting from vineyard development and operation are accounted for -- a total of 308.5 mt CO_2 per year -- the net amount of CO_2 expected to be generated by the project on an annual basis would be greater than what could be expected under "Business-as-Usual" conditions. This annual net increase in CO_2 emissions was increased by 290 mt C per year to account for the diminished sequestration potential associated with the existing condition comparison. The EIR's less-than-significant conclusion remains valid because the proposed project's incremental contribution to global climate change would still not trigger the threshold of significance (DEIR, p. 3.3-9; CEQA Guidelines, § 15064.7(a), Appendix G, Section VII (Environmental Checklist, Greenhouse Gas Emissions)).

The EIR's less-than-significant conclusion remains appropriate whether the project's annual sequestration potential is compared to "Business-as-Usual" or existing physical conditions (RDEIR, p. 4-21).

Furthermore, as discussed in detail in Response to Comment 6-5, it is noteworthy that all of the applicable "Solutions" set forth in Sonoma County's *Community Climate Action Plan*[5] regarding Agriculture and Forests are being implemented by the Fairfax Conversion Project.

As stated on page 4-21 of the Cumulative Impacts chapter of the Partially Recirculated DEIR:

> Currently, thresholds of significance for GHGs have not been identified by either the ARB, or the NSCAPCD. Early actions proposed by the ARB[10] are not strictly applicable to the proposed project, and the proposed project would be subject to any applicable State regulations as they are developed. Furthermore, in the context of statewide, nationwide,

[5] Climate Protection Campaign, *Sonoma County Community Climate Action Plan*, October 2008.

or global emissions, and considering the carbon sequestration that would continue to occur once the vineyards are planted, the proposed project's incremental contribution to this cumulative impact would not be cumulatively considerable. Therefore, the proposed project would have a ***less-than-significant*** impact on climate change.

Response to Comment 37-17

The commenter asserts that the EIR fails to document what is meant by "business as usual" in describing potential sequestration rates associated with timber harvest activities.

Under CEQA, the EIR must include an assessment of the "No Project" alternative "to allow decisionmakers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." (CEQA Guidelines, § 15126.6, subd. (e).) CEQA directs the lead agency to include in the "No Project" analysis a discussion of the existing conditions in the vicinity of the project site "as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." (*Ibid.*) The concept of the "baseline" of environmental conditions is related to, but different from, the requirement to analyze the "no project" alternative – the EIR's description of the impacts of not approving the proposed project. (See *County of Inyo v. City of Los Angeles* (1981) 124 Cal.App.3d 1, 11.)

The type of forecast that the EIR should make with regard to the "No Project" scenario is further discussed in CEQA Guidelines section 15126.6, subdivision (e)(3), which recognizes that the lead agency should account for "predictable actions by others, such as the proposal of some other project." (CEQA Guidelines, § 15126.6, subd. (e)(3)(B).) The CEQA baseline represents the setting at a fixed point in time and differs from the "no project" alternative in that the "no project" discussion anticipates what is likely to happen at the site over time, starting from the existing conditions; it is not merely retention of the status quo and allows for activities at the project site that reasonably could be expected to occur in the future.

Accordingly, the EIR complies fully with CEQA's requirements for discussion of the "No Project" scenario by providing a comparison of the proposed project to both the existing physical conditions as well as the "business as usual" scenario. As described in the EIR, the "No Project – Timber Resource Management" analysis shows the amount of carbon sequestered in the 305 acres of forestland area (on the entire 324 acre property) if the conversion were not to occur and a periodic harvest be conducted as was the case in the past (i.e. business as usual)." (RDEIR, p. 4-3.) The history of the project area as a working, managed timberland is evident by the fact that the area was completely harvested within the last 100 years and a timber mill was established on-site. Timberlands immediately to the south of the project area and throughout the assessment area are also currently managed as working forests. The EIR complies fully with CEQA's disclosure goals by providing a full spectrum of evaluation of the project's impacts in relation to the existing baseline physical conditions, as well as in relation to the No Project scenario and the cumulative scenario, as CEQA requires. (CEQA Guidelines, §§ 15125, 15126.6, subd. (e), 15130; see also Response to Comment 37-16; RDEIR, Table 4-7.)

Response to Comment 37-18

The sequestration rate of 1.73 Mg C per acre was developed by the CAL FIRE calculator utilizing site-specific information and is given for an unmanaged forest allowed to grow over the 100-year analysis period. The 0.468 sequestration rate is given for a managed second-growth forest (i.e., No Project – Timber Resource Management Alternative/Business-as-Usual scenario), and accounts for the carbon emissions that would result from periodic harvest events. Therefore, the 0.468 sequestration rate provided is appropriate for this scenario. See also Response to Comment 37-16.

Response to Comment 37-19

The Forest Inventory and Analysis (FIA) Program data provided is for a fully stocked redwood forest in the North Coast Region of California and includes an average amount of standing dead and lying dead material. The site-specific conditions of the project area indicate that the area was completely harvested in the last 100 years and was converted to grazing and orchard. These historical operations removed a large portion of the downed woody materials and the forests that have regenerated since that time have not developed the standing dead component of an average forest considered in the FIA data. A reduction of 30-40% of these pools was applied to the calculations to account for the on-site conditions. In addition, as the project area was temporarily converted to grazing and orchards following the previous harvests, it was not replanted with conifer and was left to regenerate naturally. The first species that occupied the site following the last harvests were grass, brush and hardwood species. As the conifer timber is now just beginning to recapture the site, it is less stocked than a normal stand considered by the FIA data.

Response to Comment 37-20

Murty et al 2002 reviewed the literature to assess changes in soil C upon conversion of forests to agricultural land, both cultivated, and pasture lands. Murty concluded that the soil organic C change associated with conversion from forest to cultivated land average -30% for all studies reviewed, and -22% for those studies where bulk density effects have been accounted for. As the proposed vineyard operation will incorporate little or no tilling after the vineyard is established, it could be argued that soil organic C losses would be less than those associated with cultivated land, and closer to those associated with conversion to pasture which Murty concluded were significantly less (statistically no different from zero).

Because Murty looks at studies which compare soil C changes associated with conversion from forest to either cultivated or pasture land, short term impacts associated with "forest clearing" would have been accounted for in the studies reviewed.

The statements presented above which are taken from the "literature review" contained within the Climate Action Reserve's white paper titled "Accounting for Carbon in Soils", appear to be either misrepresented, or insufficiently referenced by the author of the white paper. The white paper author's reference to Yanai et al., 2003 seems out of place as the Yanai article deals with forest floor organic matter and not soil carbon. The author's statement that "From the range of

studies examined, we see that potential declines in soil carbon following harvest can be as high as 60%" lacks any reference to the specific studies upon which the statement is based.

Furthermore, from one of the sources cited elsewhere by the commenter – Winrock International's "Measuring and Monitoring Plans for Baseline Development and Estimation of Carbon Benefits for Change in Forest Management in Two Regions" – the following is stated regarding forest soil carbon in the Jackson Demonstration State Forest analysis:[6]

> Differences in soil carbon resulting from changes in management are seldom discernible or long-lived. Soil carbon can be reduced slightly immediately following harvest (Laiho et al, 2002, Carter et al, 2002), however, any losses should be rapidly re-assimilated as the succeeding forest regrows with accompanying soil organic matter inputs (Carter et al., 2002).
>
> Relative difference in post-harvest effects on soil carbon between varying harvest intensities are slight and often undetectable (Carter et al., 2002). We thus assume that stocks of soil carbon are equal among the clearcut and group selection treatments and thus we do not include this pool in the analysis.

Clearly, there is disagreement among experts concerning the extent of soil carbon loss during harvest activities, and the Fairfax Conversion soil carbon analysis properly relies on literature published by such an expert (RDEIR, p. 4-5).

Response to Comment 37-21

The CAL FIRE GHG Calculator, which is currently the best available tool to address carbon sequestration for timber harvest projects, includes an estimate of carbon emissions (2 Mg C) due to understory removal in step 8 of the calculator. The calculator does not, however, account for the losses in the remaining carbon pools such as soil, litter and lying and standing dead. In order to account for all carbon impacts, a separate assessment of these other pools was completed. Because the CAL FIRE calculator estimates the removal of understory and <8" dbh live trees to be a loss of 2 Mg C, which is only approximately 48% of the understory and <8" dbh live trees pools as determined by the FIA data, an additional reduction of 52% was applied to the estimates for these additional pools. The two estimates (CAL FIRE calculator and FIA estimates) were both utilized to account for all carbon pools and used site-specific information to give the most accurate estimate possible.

Response to Comment 37-22

Please see Responses to Comments 37-3 and 37-14.

Response to Comment 37-23

Please see Responses to Comments 37-3, 37-20 and 37-21.

[6] Winrock International, *Measuring and Monitoring Plans for Baseline Development and Estimation of Carbon Benefits for Change in Forest Management in Two Regions*, March 2004, page 42.

Response to Comment 37-24

Please see Responses to Comments 6-8 and 37-3.

Response to Comment 37-25

Please see Responses to Comments 6-8, 6-17, and 37-16.

Response to Comment 37-26

Please see Responses to Comments 37-12 and 37-25.

Response to Comment 37-27

Please see Responses to Comments 6-8 and 6-18.

Response to Comment 37-28

Please see Response to Comment 37-3.

Response to Comment 37-29

The comment provides a summary of the concerns raised throughout the letter. Please see the above responses to comments.

Letter 38

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Allen Robertson
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April 27, 2011
via e-mail

SUBJECT: Artesa (Codorniu Napa) Fairfax Conversion Partially Recirculated Draft Environmental Impact Report (EIR) – comments (SCH # 2004082094)

Dear Mr. Robertson:

I am submitting the following comments on the "partially recirculated" Draft EIR for the proposed Artesa Fairfax vineyard conversion project in Annapolis, Sonoma County, CA. I am submitting these comments on behalf of myself and also Friends of the Gualala River (www.gualalariver.org), in addition to other comments prepared on their behalf. I have previously submitted comments on multiple modified versions of vineyard conversion projects regulated by CAL FIRE on this site:

38-1

- the first (withdrawn) THP for the antecedent of this project from 2001;
- the (withdrawn) Mitigated Negative Declaration for the antecedent project;
- the Notice of Preparation (NOP) for the second (previous) project description in September 2004;
- the Draft Environmental Impact Report (DEIR) of May 2009 circulated almost 5 years after the NOP.

My qualifications to provide technical comments on the CEQA document are summarized in my July 28, 2009 DEIR comment letter, and are incorporated by reference.

My comments concern the following issues with the partially recirculated DEIR:

38-2

- **Changes, vagueness, and inconsistencies in the project description** (project component classification and acreage) and vague or inadequately described project modification, including 27 acres of unspecified land uses that may result in undisclosed significant indirect and cumulative impacts or project piecemealing;

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Cont'd

- **Alternatives analysis**: continued failure to address fundamental deficiencies in the DEIR's prejudicial, inadequate analysis of alternatives, particularly off-site alternatives, failing to comply with alternatives criteria of CEQA Guidelines 15126(d)(3) and (5) based on conditions prevalent at the time of the original Notice of Intent as well as significantly changed conditions affecting the feasibility and availability of off-site alternatives since the DEIR was circulated. 38-3

- **Cultural and archaeological resources**:
  - inadequate analysis of the site and its setting (geographic, ethnobotanical, and archaeological context), particularly the lack of integration between geographic information in the ethnographic record and interpretation of archaeological features of the site (cf. CEQA guidelines 15125(a)); 38-4
  - arbitrary and inconsistent determinations that the setting qualifies as an archaeological district with significant, unique context, but that designation of archaeological district status is not justified; 38-5
  - inadequate and unenforceable mitigation regarding detection of previously undiscovered archaeological resources that are disturbed during earthmoving; 38-6
  - inadequate pre-construction systematic subsurface surveys. 38-7

- **Greenhouse gas analysis**: By limiting the GHG analysis to forestry and construction, and continuing to omit arbitrarily all meaningful analysis of ongoing intensive agricultural (viticulture) GHG and its contribution to potentially significant impacts, the rDEIR provides a selective and incomplete analysis that understates significant potential impacts and precludes analysis of appropriate mitigation measures, including: 38-8

  - seasonal soil carbon emission (microbial respiration) accelerated by fertilizer application (reduced C:N) and irrigation,
  - annual grapevine frost protection fossil fuel consumption (turbines/fans and heaters using propane or kerosene), 38-9
  - annual grapevine frost protection requiring fuel-driven pumping of water 38-10
  - annual irrigation pumping fuel costs 38-11
  - annual disposal of annual grapevine wood prunings (burning or non-soil decomposition), one of the most important variables influencing carbon balance for vineyards (Kroodsma and Field 2006) 38-12
  - annual fertilizer and pesticide carbon costs (full manufacturing and application life-cycle C cost), 38-13
  - analysis of cumulative contribution of the proposed project's ongoing annual agricultural net carbon emissions in context of existing Annapolis, Sonoma County, and North Coast existing and forecast future vineyard acreages, including the (CEQA-foreseeable) proposed Preservation Ranch project; 38-14
  - net long-term carbon emission and net C sequestration opportunity loss comparing forest and vineyard 38-15

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38-16

- justification of the assertion that drought-tolerant rootstocks would be used in production in a region where fine-tuned seasonally timed fertilizer and water applications are used to control grape sugar content and secondary metabolite content (shallow root systems sensitive to short-term variations in water and nutrient availability)

38-17

- **Arbitrary exclusion of public comments on substantial changes** with respect to the circumstances under which the project propose to be undertaken, particularly feasible alternatives with less environmental impact of forest conversion, which were not previously considered and would substantially lessen multiple significant impacts, inconsistent with CEQA Guidelines 15162(a);

38-18

- **Significant irretrievable and irreversible environmental impacts** due to relatively short-term economic uses at the expense of long-term productivity (Guidelines 15126(e-f): because of continued failure of the rDEIR to address off-site alternatives that do not require forest conversion to intensive agriculture, and to failure to address irreversible (human time; recoverable only in geologic time) loss of forest topsoil microbial community, biomass, and carbon stocks, the rDEIR precludes a good faith, reasoned analysis and meaningful public comments of the project impacts and alternatives.

38-19

- **Persistent uncorrected inadequate and incomplete analysis of significant environmental impacts and mitigation** regarding biological resources (cumulative and direct additive impacts of permanent invasive non-native bullfrog breeding habitat creation in reservoirs; pesticide impacts associated with novel pest outbreaks; cumulative and direct impacts of surface and groundwater capture to supplement irrigation pond levels during prolonged critical droughts; etc.).

1. **Changes, vagueness, and inconsistencies in the project description.**

38-20

The project description in the rDEIR differs from the DEIR in terms of accounting and classification of project components, and includes a vague and indeterminate description of significant acreages. Contrasts are summarized in the table below. The "20 acres of graded perimeter slopes" with unstated slopes, soils, land use or cover type, was increased to 27 acres of unspecified "non-vineyard uses". These unspecified "non-vineyard uses" are **impermissibly vague**, and may have **potential significant impacts that are not disclosed or analyzed**. The "27 acres of non-vineyard uses" are also **potential sources of project segmentation** (piecemealing), such as predictable subsequent permit applications for wine tasting rooms or residential development compatible with a large area of 27 acres. The "work area" is inadequately described, and the restrictions of land uses for the "work area" during and after vineyard construction are unclear. The distinction between "net" and "gross" vineyard and the changed acreages between 2009 and 2011 are not adequately explained, nor are the changes in acreages. The nature, standards, objectives, and

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measurable, enforceable criteria for the proposed "deed restriction", and potential types of deed restriction/easement holders are not explained.

The degree of ambiguity, inconsistency, and indeterminacy in the project description modifications are severe enough to preclude meaningful public comment on analysis of potential significant impacts and mitigation. Contrary to the rDEIR's claim, these changes (particularly the new 27 acre "non-vineyard uses" designation) may potentially increase project impacts in a manner or degree not analyzed in the DEIR.

38-20 Cont'd

2009 DEIR	2011 NOA and partially recirculated DEIR
190-acre **project site** No quantification or description of "**work area**"	**173** acre site 5 mi east of Pacific Ocean on Beatty Ridge. **173** acre "**work area**"
"**135**-acre net vineyard"; "**171** acres of the 190-acre total would be converted from young-growth timber" (originally **105** acre conversion – 2001 THP)	**116** acre "net vineyard" 146 acre "gross vineyard"
20-acres of **graded perimeter slopes**	**27 acres of "non-vineyard uses" (not described)**
134 acres "**... permanent deed restriction** over approximately of land composed of the south-draining tributaries to Patchett Creek in the central portion of the site, and additional biologically rich or culturally significant areas." (*deed restriction proposal, objectives, criteria, not described*) CONSERVATION EASEMENT 20.0 acres **total 154 acres**	**151** acre "**permanent deed restriction** ...over land composed of the south-draining tributaries of Patchett Creek in the central portion of the site and additional biologically rich or culturally significant areas" *(deed restriction proposal, objectives, criteria, not described*) [conservation easement? "**133** forested acres with permanent open space easements" (p. 1-7)]
Net Vineyard Area 135 Ac Corporation Yard 1Ac Reservoir and Sump 9 Ac Perimeter Avenues 23 Ac Driveway and Roads 2 Ac Perimeter Grading 20 Ac **Total Project Area 190 Ac** **CONSERVATION EASEMENT** **20.0**	324 acre property 173 acre work area limit 151 acre reserve/set-aside 173 acre work area 146 acre gross vineyard 27 acre non-vineyard 146 acre gross vineyard 116 acre net vineyard 18 acre perimeter avenues 9 acre reservoir, sump 2 acre driveway, roads 1 acre corporation yard

38-21

Because the modified project description is inconsistent, vague, and includes new land use designations and acreages that may increase project impacts, the CAL FIRE notice of availability improperly restricted the scope of public comment under CEQA : "CAL FIRE directs that public comments must be restricted to the newly circulated information contained in the RDEIR….". This restriction is arbitrary also because CAL FIRE simultaneously re-opened the corresponding Timber Harvest Plan for the same project and site (01-09-058-SON) with unrestricted scope of public comments .

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2. Alternatives analysis.

38-22 The rDEIR compounded the original fundamental deficiencies in the analysis of off-site feasible project alternatives by failing to review substantially changed vineyard real estate availability (lease, fee-title acquisition) on **previously converted agricultural lands in the North Coast region capable of growing premium wine grapes that do not involve significant environmental impacts of forest conversion or intrusion into sensitive archaeological districts or resources**. This is the most fundamental CEQA impact avoidance question underlying evaluation of potential feasible alternatives sites. The omission of evaluating reasonable off-site alternatives that avoid forest conversion impacts and location-dependent impacts among sensitive archaeological and cultural resources violates CEQA Guidelines Section 15126 (d)(3) "The discussion of alternatives shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impact to some degree the attainment of the project objectives, or would be more costly" (i.e., to some degree less desirable or profitable)"

38-23 **The rDEIR continues to fail to consider a reasonable "market area" or "service area" for alternative sites that could produce premier wine grapes in prior converted croplands and prior converted agricultural watersheds**. The rDEIR continues to fail to justify a **reasonable minimum economically viable size for a reduced project alternative**, and fails to account for the evident economic feasibility of antecedent, adjacent vineyards with substantially smaller vineyard acreage and no reservoir development. The rDEIR continues to fails to account for the original smaller-scale Artesa proposal to convert 105 acres of vineyard rather than 171 acres.

38-24 Scope of reasonable alternatives cannot be arbitrarily limited to the narrow objectives of the project description, but must be based on basic objectives of the project in light of **short-term versus long-term effects** (Guidelines15126(a), 15126 (d)(5) "…The key issue is whether the selection and discussion of alternatives fosters informed decision-making and informed public participation". The significant impact of irreversible redwood forest conversion to crop agriculture is clearly at the heart of CEQA's concern about "The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity. …special attention should be given to impacts which narrow the range of beneficial uses of the environment …" in CEQA Guidelines Section 15126 (e). The **vagaries of the short-term wine industry fashions and bubbles of demand – which have notoriously continued to burst** since the DEIR (**Harvest takes $142 million toll on North Coast growers,** Santa Rosa Press Democrat, February 10, 2011: http://www.petaluma360.com/article/20110210/BUSINESS/110219952/-1/PT07?p=all&tc=pgall) must be weighed against the irreversible loss of forest soils that support forest productivity . See CEQA Guidelines 15126 (f): "Any significant irreversible environmental changes which would be involved in the proposed action should it be implemented". Vineyard conversion irreversibly strips away forest soils, and there is no mitigation for rebuilding redwood forest soil profiles that require millennia to form. Redwood forests are not merely acreages of board-feet of timber. They are ecosystems capable of resilient recovery after disturbance, but

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not after physical removal of their substrate and biota. Only off-site alternatives analysis can address this issue. The rDEIR utterly failed its CEQA obligation to rectify this fundamental omission in the DEIR, despite ample public comments on this issue.

3. **Cultural and archaeological resources**

The rDEIR's supplemental "review" of cultural and archaeological resources failed to analyze adequately the instructive and substantive criticism provided by expert comments of Prof. Peter Schmidt, who recommended a rigorous examination of the published ethnographic (Pomo cultural anthropology) record to properly define geographic context archaeological resources. The rDEIR acknowledges (p.3.5-3, 3.5-22) that ethnographic data on geographic patterns of prehistoric inhabitants of Annapolis is important for interpretation of the area as an archaeological district and context for "significance". I was unaware of how myopic the analysis of archaeological resources was in the DEIR until I followed his advice and published references myself. I was further surprised to find that the **recirculated DEIR merely "reviewed", but did not analyze, the very explicit and detailed semi-quantitative narrative and graphic geographic data of southern Pomo and Kashaya village and camp sites what is now the Annapolis area that were published in the 20th century.**

38-25

The rDEIR referred to its qualitative "review" (p. 3.5-22) of semi-quantitative narrative locality data in Barrett (1908), but **failed to utilize standard readily available GIS analytic tools – routinely used by CAL FIRE in forestry regulation – to analyze the documentary village and camp locality evidence in the published ethnographic record and apply it to basic geographic data on topography, soils, springs/seeps, and distinctive vegetation types** such as erratic modern and historical dominance of oaks and manzanitas (important Pomo inland food plants) and grasslands within an otherwise nearly continous redwood forest belt. The rDEIR understates the physical geographic fact that the same distinctive, unique soils, vegetation structure, and topography that makes Annapolis attractive to vineyards was documented to have been responsible for what was described in the rDEIR and DEIR as a "somewhat unique" (p 3.5-3) terrain patterning of density and location of Kashaya and Southern Pomo seasonal or permanent villages and camps above the Gualala River, in what was otherwise a sparsely inhabited redwood forest belt. In fact, as any geologic or topographic map of the Sonoma-Mendocino coast region will indicate, the **interior** Ohlson Ranch formation terrain and vegetation within the regional redwood belt of Annapolis is in fact unique.

38-26

More specifically, the published semi-quantitative narrative and graphic geographic locality descriptions of old village and camp sites explicitly converge on a **continuous soil and topographic unit** (elevation between 600 and about 800 feet) linking two principal Pomo villages, **Shamli** (camli) of Beatty Ridge and **Hibuwi** of Nob Hill. This geographic context of a distinctive topographic, soil, and vegetation unit including the Artesa project site in close proximity or including the old camp site **Kabatui** (k´abåtɬwi), bracketed between two of the main old villages mapped and described in the Annapolis area, is obscured in the DEIR and rDEIRby narrow focus on whether or not the project site includes these sites.

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38-27

Neither the DEIR nor rDEIR state that project site location narrowly within a village or camp site boundary, rather than broadly within a cultural resource zone patterned in relation to them, is a threshold for CEQA significance. In the absence of GIS analysis, the rDEIR does not objectively justify its conclusion that "Based upon Barrett's descriptions of these site locations, all three of these named villages appear to be outside the project area", or identify the project site's topographic and cultural resources relationships to those localities.).

38-28

I compiled the following data **directly and verbatim** from narrative and semi-quantitative geographic descriptions (approximate mile distance and direction based on geologically fixed creek/river confluence points) of village and camp site locations in the publicly available published ethnographic literature, beginning with Prof. Schmidt's reference to S.A. Barrett's 1908 monograph, and compared with the U.S. Geological Survey Annapolis quandrangle sheet (1977). These data were not, and should be, analyzed using standard GIS methods to test whether the subjective "review" of the ethnographic documentary geographic descriptions supports the rDEIR's (inconsistent) conclusions. The data sources include:

Barrett, S.A. 1908. The ethno-geography of the Pomo and neighboring Indians. University of California Publications in American Archaeology and Ethnology, volume 6. Berkeley, The University Press.

Bean, J.L., and D. Theodoratus. 1978. Western Pomo and Northeastern Pomo. in: Heizer, R.F. Handbook of North American Indians, volume 8: California. Smithsonian Institution, Washington, DC.

Gifford, E.W. and A.L. Kroeber. 1939. Culture element Distributions: IV. Pomo. University of California Publications in American Archaeology and Ethnology vol. 37, No. 4, Pp. 117-254.

Kniffen, F.B. 1939. Pomo Geography. University of California Publications in American Archaeology and Ethnology, Vol. 36

Kroeber, A.L. 1925, Handbook of the Indians of California, Bulletin 78 of the Bureau of American Ethnology of the Smithsonian Institution

McLendon, S. and R.L. Oswalt. 1978. Pomo: Introduction. in: Heizer, R.F. Handbook of North American Indians, volume 8: California. Smithsonian Institution, Washington, DC.

These data include detailed approximate maps that represent village sites in relation to portions of Patchett Creek drainage (Kniffen 1939) of the Artesa project site, and village and camp sites in relation to defined creek and river confluences (Kroeber and Gifford 1925). The rDEIR failed to represent the project site geographically (or even merely graphically) in relation to the overall habitat pattern, as a context for interpretation of the archaeological district or "unique" aspect of prehistoric Annapolis.

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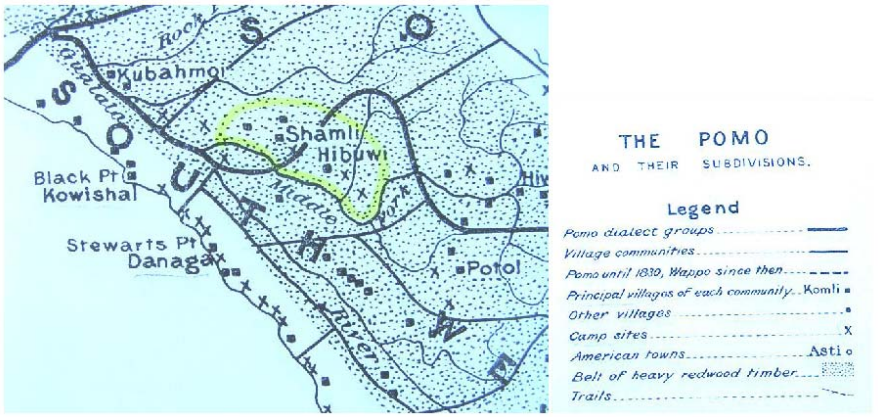

Excerpt plate 36, from Kroeber, A.L. 1925, Handbook of the Indians of California, Bulletin 78 of the Bureau of American Ethnology of the Smithsonian Institution showing distribution of "old village sites" (black rectangles) and "principal villages" (black squares with names) north of "Middle Fork" (Wheatfield Fork) Gualala River west of Fuller Creek (shown as forked creek above "l" in "Middle"). Black line represents inferred boundary of "southwestern dialect" (Kashaya). Note principal named Kashaya village **Hibuwi** ("potato-place" – a reference to edible native bulbs in grasslands) approximately at the location of Nob Hill (broad flat-topped ridge with grassland; not located on Burnt Ridge, which corresponds with Barrett's semi-quantititive geographic description of the old camp site **Nekawi** north of the mouth of Fuller Creek) southeast of the camp site (X) corresponding with Barrett's (1908) narrative location of **Kabatui** ("madrone forks"; Barrett 1908 p. 226, "about a mile and a half northwest of the old village of **Hibuwi**...very near the boundary between Southern and Southwestern dialect areas…about a mile from the river). The Artesa site overlaps with at least this semi-quantitative narrative vicinity of Kabatui based on distance, direction, and topography in relation to the mapped points.

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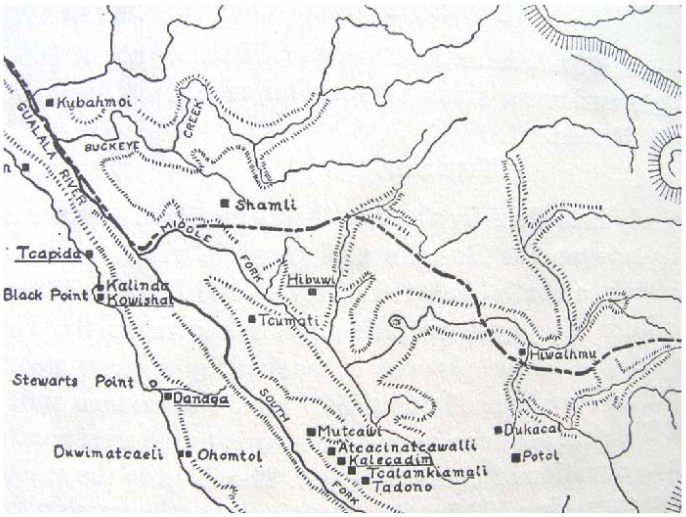

Excerpt of Map 3, page 382, from Kniffen, F.B. 1939. Pomo Geography. University of California Publications in American Archaeology and Ethnology, Vol 36, showing distribution of "old village sites" (black rectangles) and "principal villages" (black squares with names). Dashed line represents inferred boundary of "southwestern dialect" (Kashaya). Note principal named Kashaya village **Hibuwi** ("potato-place" – a reference to edible native bulbs in grasslands) approximately at the location of Nob Hill (flat-topped ridge) here explicitly represented between short **Patchett Creek** sub-watershed (shown with one distinctive east-trending branch of the stream draining the **Artesa Fairfax site**) and Fuller Creek at a point west of Sullivan or Boyd Creek. **Shamli** ("Camli" of Barrett 1908; southern Pomo village) is represented in relation to Little Creek, a short distance west of its headwaters on Beatty Ridge, near the modern Craig ranch west of the Artesa-Fairfax site. Kabatui and other camp sites are not shown in this map. Kabatui and the modern Artesa-Fairfax site are situated along the continuous gently sloping drainage divide contour between 600 and 800 ft between Shamli and Hibuwi.

Old Village sites (southern)

camli, in the mountains immediately north of the middle fork of Gualala river and at a point probably about three miles a little north of east of the confluence of that stream with the main branch of the Gualala river.

Old Camp Sites (southern)
kabatui, from *kaba*, madrona, and *tui*, forks (?), in the mountains north of the middle fork of Gualala River and at a point about a mile and a half northwest of the old village of Hibuwi. This site is very near the boundary between the Southern and Southwestern dialect areas and is about a mile from the river.

Old Village Sites (Southwestern/Kashaya)

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hibuwi, from *hibu*, Indian potato, and *wi*, place, at a point about half a mile north of the middle fork of Gualala River and about five miles east of its confluence with the main branch. This village site is probably in the vicinity referred to by Powers in speaking of the people whom he calls the Gualala. He says, "There is a certain locality on Gualala creek, called by them Hipowi, which signifies 'potato place'". [Nob Hill on USGS 1977 Annapolis Quadrangle, topographically continuous with the Artesa site and Patchett Creek headwaters along the 600 ft elevation contour marked by grassland and oak vegetation within what is otherwise a redwood-douglas fir-tanoak dominated conifer forest belt]

Old Camp Sites (Southwestern/Kashaya)

nekawi, from *neu*, to lay anything down, *ka*, water or spring, and *wi*, place at a point about three-quarters of a mile east north-east of the confluence of Fuller creek with the middle fork of Gualala river [Burnt Knoll Ridge on USGS 1977 Annapolis Quadrangle] (Barrett, 1908; USGS quad references added)

38-29

With regard to the determination of the project site's occurring within a valid archaeological district (a threshold for significance, and a type of significant impact in its own right) or a unique archaeological resource, the rDEIR is inconsistent in affirming on the one hand that "while there are important Native American sites in the vicinity of Annapolis, it is **not a unique area** in terms of archaeological and/or cultural site **density**" (rDEIR p.3/5-22, emphasis added) and on the other hand that

> the terrain in the vicinity of Annapolis is generally much gentler and flatter that other inland areas associated with the North Coast Range, **making the region somewhat unique and likely more attractive to prehistoric habitation**. As such, the **location and density of archaeological sites** within this particular area **may reflect patterns outside of the typical Northern Coastal habitation model**. (original in DEIR and repeated in rDEIR p. 3.5-3, emphasis added)

38-30

The interpretation of "natural" vegetation in relation to the Goldridge soil pattern in Annapolis, and their potential uniqueness within the regional redwood belt, is important to cultural patterns of natural resource utilization and location of habitat sites, and habitation patterns in relation to topography, vegetation, and natural resources. The rDEIR's overbroad generalization that "In their **natural state**, Goldridge soils support forest trees including redwood, Douglas fir, baywood, and oak, and Hugo soils support Douglas fir, redwood, and California laurel" (rDEIR p. 3.5-1), applied to Annapolis, is inconsistent with previous cultural anthropology findings specific to the area by multiple authors who states that the **natural openings in the redwood forest** were essential to habitation patterns, and supported grassland, oak, and manzanita (important food resources) and were **actively maintained** by periodic burning:

> The country formerly inhabited by the Southwestern Pomo forms a narrow coastal strip lying between the Russian and Gualala rivers… In the deep valleys along the perennial

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38-30
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streams, on the well-protected north slopes, tree growth is heavy. On the **higher slopes with southerly exposures there are numerous and good-sized natural openings where the vegetation cover is grass and shrubs rather than trees**. Though **manzanita** [footnote 49: *Arctostaphylos manzanita* ?] **is fairly abundant** in the area, patches of true chaparral [are] rather uncommon. The **treeless openings were formerly covered with wild oats and clover**, now rapidly disappearing in the normal plant succession of an overgrazd country. (Kniffen 1939, p. 383, bold type added).

To assure the permanency of the natural openings and to maintain the quality of the oat crop, the dry straw was burned off every few years, generally after the first good rain of fall. (Kniffen 1939, p. 389, bold type added)

In addition to these three inhabited areas, there is a fourth which was almost uninhabited except at certain seasons of the year and then only to a very limited extent. This is the **belt of dense redwood forest** covering the coast mountains, and extending as an almost continuous forest...**there were many villages along the eastern border of the belt and even some permanent villages in more favorable locations within it, as along Gualala river in the territory of southwestern Pomo. In a great measure, however, the whole belt was uninhabited except for camps in the small open valleys** where hunting and food gathering parties remained for a short time in certain seasons. (Barrett, 1908 p. 123, bold type added)

Along almost the entire length of the coast between the mouths of Gualala river and Salmon creek, near Bodega bay, the redwood forest begins almost at the shore-line – nowhere does the open land extend for more than a mile back from the cliffs – and continues as a solid belt of timber with **but few open areas for many miles inland this belt of timber was not inhabited, except in these small open areas, by the people of the Southwestern or the Southern dialect**….(Barrett 1908 p. 211, bold type added)

.

in the north, the Southern Pomo occupied a section of the coast, separating the Kashaya from the Central Pomo…The **more desirable living sites, especially in winter, were near springs in the relatively open land atop the ridge divides, above the dark densely forested canyons and riverbanks, and inland from the coastal wind and fog.** (McLendon and Oswalt 1978 p. 278, bold type added)

The redwood forests were considered hinterlands…The coast redwood zone was the least favorable of the habitats exploited by the Pomo…**In several places along the coastal foothills stands of coastal oak were exploited in the fall while various edible bulbs, berries, roots, tubers, and seeds were available...** (Bean and Theodoratus 1978, p. 289 bold type added)

The rDEIR on p. 3.5-3 (retaining the original DEIR conclusion) affirms that

The **terrain in the vicinity of Annapolis is generally much gentler and flatter that other inland areas** associated with the North Coast Range, **making the**

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region somewhat unique and likely more attractive to prehistoric habitation. As such, the **location and density of archaeological sites within this particular area may reflect patterns outside of the typical Northern Coastal habitation model**.

38-30 Cont'd

It is therefore inconsistent of the rDEIR to conclude, despite the convergent evidence of geologically confined, soil-specific, oasis-like redwood forest gaps supplying grassland bulbs (Indian potato) and seed (pinole) resources, manzanita, oak, spring/seeps, and south-facing gentle slopes distant from cool ocean winds, and proximity to salmon streams – all documented to be exceptional for Pomo habitation in the redwood belt, consistent with the correlated distribution of camp and village sites – the rDEIR concludes that recognizing Annapolis as a unique archaeological district is not justified because of a "lack of sufficient data" (rDEIR p. 3.5-22, 3.5-31). The rDEIR expressly applied the phrase "somewhat unique" to describe the Annapolis "District" on p. 3.5-3. The rDEIR rejection of an archaeological district appears to be prejudicial rationalization of the original DEIR conclusions, despite contrary evidence and expert opinion in the administrative record. I urge CAL FIRE to bring this important question of archaeological district status and justification to expert arbitration prior the FEIR by convening an expert peer review/advisory panel of independent and academic anthropologists and archaeologists with expertise in Pomo tribal lands. The findings of this panel should be included in the FEIR.

38-31

The DEIR and rDEIR also failed to objectively compare the archaeological data with criteria for "**unique**" archaeological resources at Pub. Res. Code Section 21083.2(c)-(f), (defined at 21083.2(g) as "an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: (1) contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information. (2) Has a special and particular quality sucha s oldest of its type or best available example of its type. In the absence of any objective geographic analysis of interior redwood belt patterns of geologic/soil-patterned oasis-like grassland, oak, manzanita scrub resources and habitation patterns in Pomo lands, it is arbitrary for the rDEIR to dismiss the unique archaeological and prehistoric cultural setting of Annapolis.

38-32

The rDEIR also failed to consider the potential for designation of an Annapolis Archaeological District to mitigate cumulative significant impacts to archaeological and cultural resources caused by further, foreseeable vineyard expansion and conversion, such as portions of Preservation Ranch and the recently acquired Wellman parcel (on Beatty Ridge) adjacent to Artesa.

38-33

Compared with the mitigation proposed in the Final Environmental Impact Report for Glen Cove Waterfront Park Master Plan (SCH# 2001092044, *September 2007),* for equivalent earthmoving impacts to equivalent important buried undocumented archaeological resources (midden, scatter deposits, village site context, exclusion buffer zone but unclear boundaries because of obscuring vegetation and lack of subsurface systematic survey) the rDEIR

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mitigation is insufficient in failing to explicitly require expert and qualified archaeologists for detecting undocumented archeological artifacts or human remains during earthmoving and having authority to stop earthmoving operations. The Glen Cove EIR cultural resource mitigation, which is still controversial and deemed insufficient and unacceptable to Ohlone tribal members (http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2011/04/14/BAD11J03G4.DTL&type=printable), is much more stringent for the same impacts and physical context at Artesa's site, in that it requires expert archaeological monitoring and reporting under a formal monitoring agreement:

> All earth-moving activities including… [enumerated activities] and buffer areas shall be monitored by **a qualified archaeologist**. Archaeological monitoring for the [project] shall be conducted under a written Archaeological Monitoring Agreement. Such an agreement shall provide for at a minimum: [a….f covers timely notification of earthmoving, monitoring, authority to stop work, etc.].

38-33 Cont'd

The rDEIR provides no valid reasons for Artesa to have less stringent mitigation relying on non-expert/unqualified equipment operator detection of archeological resources. The only relevant difference appears to be that Glen Cove has undergone intensive and well-publicized scrutiny from Ohlone organizations in the Bay Area, while Annapolis' equally important Kashaya heritage sites in isolated northwestern Sonoma County are substantially left to the protection of unqualified equipment operators. I believe the mitigation is essentially token and unenforceable, and that the Glen Cove standards should apply.

38-34 I defer to the comments of Prof. Peter Schmidt that the rDEIR still relies on archeological survey methods and sampling intensity that are insufficient to reasonably avoid potentially significant impacts. I believe that the approach of pre-construction surveys has placed an unreasonable emphasis on narrow "hit or miss" impacts of individual localized sites or deposits, and inadequately assess the integrity of the archaeological resources at the site as a whole.

4. **Greenhouse gas analysis**

38-35 The rDEIR's accounting of GHG emissions fails to identify or quantitatively estimate the contribution of ongoing agriculture (viticulture) – the primary purpose of the project – to greenhouse gas emissions over time. It fails to identify any significant impacts of foreseeable carbon-based agricultural practices such as:

- frost protection by fossil-fuel combustion engine-driven fans, fossil fuel heaters),
- 38-36 annual grapevine frost protection requiring fuel-driven pumping of water
- 38-37 pumping of water from wells during consecutive critical drought years
- 38-38 annual irrigation pumping fuel costs

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38-39
- annual disposal of annual grapevine wood prunings (burning or non-soil decomposition), one of the most important variables influencing carbon balance for vineyards (Kroodsma and Field 2006)

38-40
- annual fertilizer and pesticide carbon costs (full manufacturing and application life-cycle C cost)

Furthermore the rDEIR lacks analysis of the following agricultural components of long-term GHG emissions:

38-41
- analysis of cumulative contribution of the proposed project's ongoing annual agricultural net carbon emissions in context of existing Annapolis, Sonoma County, and North Coast existing and forecast future vineyard acreages, including the (CEQA-foreseeable) proposed Preservation Ranch project;

38-42
- net long-term carbon emission and net C sequestration opportunity loss comparing forest and vineyard

38-43
- seasonal soil carbon emission (microbial respiration) accelerated by fertilizer application (reduced C:N) and irrigation,

38-44 The rDEIR analysis of GHG emissions is therefore incomplete and biased to underestimate (or omit) potentially significant GHG emissions from ongoing wine grape production in the local climate. In addition, I concur with the expert conclusions of Tom Gaman that the forestry component of the GHG analysis is inadequate to address significant impacts of the forest, and relies on unsupported or insufficiently justified estimates of GHG emissions.

Biological Resources

38-45 The rDEIR failed to correct most of the deficiencies in the original DEIR analysis of biological impacts due to direct and indirect impacts of forest conversion and agricultural operations. Outstanding examples include:

- Bullfrog breeding habitat and dispersal corridor impacts of reservoir maintenance (facilitation of invasive non-native predators of listed salmonid species; Garwood et al. 2010, Northwest Naturalist 91: 99-101)

38-46
- Lack of justification of the assertion that drought-tolerant rootstocks would be used in production in a region where fine-tuned seasonally timed fertilizer and water applications are used to control grape sugar content and secondary metabolite content (shallow root systems sensitive to short-term variations in water and nutrient availability).

38-47
- Indirect and cumulative impacts of fungicide, herbicide, pesticide transport and fate on native amphibians, fish, and prey base (aquatic invertebrates) and review of relevant scientific literature on transport and fate of agricultural pesticides in adjacent streams

38-48
- Impacts of pesticide responses to "emergency" outbreaks of new vineyard pest

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Conclusions and recommendations

38-49 The entire DEIR, not just two sections, should be recirculated to address the basic CEQA defects in the stale, outdated alternatives analysis, the incomplete and apparently biased assessment of archaeological and cultural resources, greenhouse gas emissions of ongoing vineyard operation, and related hydrological and biological impacts.

38-50 CAL FIRE should assemble an independent expert panel to adjudicate the issue of whether the designation of an Annapolis Archaeological District is justified.

Sincerely,

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Interested Parties

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LETTER 38: PETER R. BAYE PH.D., BOTANIST – COASTAL ECOLOGIST

Response to Comment 38-1

The comment is introductory and does not address the adequacy of the Partially Recirculated DEIR (hereafter referred to as "RDEIR"). The commenter's previous comments on the Mitigated Negative Declaration and NOP were addressed throughout the Fairfax Conversion DEIR; and the commenter's comments on the DEIR have been responded to in Letter 7 of this Final EIR.

Response to Comment 38-2

Please see Response to Comment 38-20.

Response to Comment 38-3

Please see Responses to Comments 7-5 and 7-6.

Response to Comment 38-4

Please see Responses to Comments 38-25 to 38-28.

Response to Comment 38-5

Please see Responses to Comments 38-29, 38-30, and 38-32.

Response to Comment 38-6

Please see Response to Comment 38-33.

Response to Comment 38-7

Please see Response to Comment 38-34.

Response to Comment 38-8

Pursuant to CEQA Guidelines Section 15064.4(a), Determining the Significance of Impacts from Greenhouse Gas Emissions:

> The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make 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. A lead agency shall have discretion to determine, in the context of a particular project, whether to:
>
> (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead

agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or

(2) Rely on a qualitative analysis or performance based standards.

Consistent with CEQA Guidelines, CAL FIRE calculated the amount of greenhouse gas emissions resulting from the Fairfax Conversion project. Furthermore, in accordance with 15064.4(a)(1), CAL FIRE, acting as lead agency, appropriately used the discretion given it by Section 15064.4(a)(1) in deciding to utilize the Greenhouse Gas Emissions Calculator, which was developed by in-house technical experts. The limitation with this Greenhouse Gas Emissions Calculator, as it relates solely to the Fairfax Conversion project, is that it is designed to calculate GHG emissions from all aspects of timber harvest operations. Therefore, the GHG analysis conducted for the Fairfax Conversion project had to be supplemented to also evaluate GHG emissions resulting from vineyard development and operation. The Fairfax Conversion climate change/greenhouse gas emissions analysis included in Chapter 4, *Cumulative Impacts*, of the Partially Recirculated DEIR for the Fairfax Conversion project consists of a rigorous and comprehensive analysis of the GHG emissions that would be generated from all phases of the proposed project. Minor exceptions are noted by the commenter, such as the observation that the Fairfax Conversion GHG analysis did not calculate seasonal soil carbon emission (microbial respiration) accelerated by fertilizer application and irrigation.[7] However, it is important to note that the DEIR states on page 3.7-79 that Artesa Vineyards will not apply fertilizers prior to vineyard establishment, as recommended in the Crop Care Baseline Soil Analysis Report. However, in the spring and through the growing season, fertilizer may need to be injected into the drip irrigation system using approximately 10 to 15 gallons of concentrated fertilizer per acre per year. This application will likely be done once during the growing season, but only during those years when needed. In addition, an application of 12-26-26 fertilizer or gypsum (form of calcium, dry material) may be used at a rate of 500 to 1,000 pounds tons per acre when called for, but not every year. In sum, irrigation and fertilizer, if and when used, will be applied at agronomic rates via a drip system, so excess water and nutrients will not be added to the soil. Surface expression of the wetted area is on the order of 3' diameter, about 7 square feet. For vines on a traditional 8x5 spacing (40 sf) the wetted area is about 18% of the planted area and would be about (112/173)*.18 = 11% of the total work area. In any event, plant vigor should not directly influence performance of the larger and more diffuse soilborne microbial community.

While accounting for the few additional minor sources of carbon identified by the commenter would add to the overall amount of CO_2 generated by the proposed project, the additional amount would not be substantial given that all of the primary sources of carbon attributable to the proposed project have been adequately accounted for in the rigorous GHG analysis

[7] It is noteworthy that the *Sonoma County Community Climate Action Plan*, dated October 2008, states in regard to calculating GHG emissions from the agricultural sector that "In 2005, the GHG Emission Inventory for Sonoma County determined that the complexity of calculations would prevent inclusion of agricultural activities other than livestock, which were determined to be 11 percent of the County's emissions." While recognizing the complexity of such calculations, CAL FIRE, in the Fairfax Conversion DEIR, has employed its best efforts based upon available data to calculate GHG emissions from all primary aspects of the operation of the proposed on-site vineyard.

conducted for the Fairfax Conversion project. Any additional amount of CO_2 not accounted for in the project analysis would not change the conclusion of the climate change/GHG analysis. Regarding this conclusion, page 4-20 of the Cumulative Impacts chapter of the Partially Recirculated DEIR states that, while the project (i.e., 151-acre forest reserve and established vineyard) would result in an increase in carbon sequestration over business-as-usual conditions of 39.11 metric tons of carbon per year (144 metric tons of CO_2), once the CO_2 emissions resulting from vineyard development and operation are accounted for, the net amount of CO_2 expected to be generated by the project on an annual basis is 164.5 metric tons of CO_2. The RDEIR concludes that this amount is considered less than significant (RDEIR, pp. 4-20ff; see also Responses to Comments 6-8, 6-17, and 37-16).

Response to Comment 38-9

The DEIR comprehensively analyzed the issue of frost protection mitigation based on the project site's specific characteristics. As the DEIR explains, "vineyard development has occurred throughout the project vicinity in recent years, concentrated in areas of gentle terrain (ridgetops), high-quality soils, and relatively frost-free environments." (DEIR, p. 4-11.) The Project site is no exception. As part of the DEIR, a consultant engineering firm was retained to conduct a water availability evaluation for the project site. (See DEIR, Appendix P.) This evaluation, entitled *Vineyard Water Availability Evaluation*, concluded that the project site would not be susceptible to frost given the site's high elevation, ridgetop location, and constant air flow. (DEIR, Appendix P, p. 2.) For these reasons, the *Vineyard Water Availability Evaluation* concluded that frost protection irrigation would not be necessary. (*Ibid.*) Based on this expert analysis, the DEIR also concludes that frost protection irrigation is unnecessary at the project site. (DEIR, p. 2-24.) Similarly, other forms of frost protection would not be needed, including turbines/fans and heaters (See also Response to Comment 7-23).

Response to Comment 38-10

Please see Response to Comment 38-9.

Response to Comment 38-11

Please see Response to Comment 38-8.

Response to Comment 38-12

Burning of annual grapevine prunings would not occur. Prunings would be left in the vine row and mulched in place, providing recycling of organic matter and nutrients. As such, much of the carbon will be reincorporated in the soil and will serve to enhance the local microbial community.

Response to Comment 38-13

Please see Response to Comment 38-8. In addition, regarding the anticipated minimal use of pesticides on-site due to the applicant's commitment to Integrated Pest Management (IPM), see Response to Comment 7-9.

Response to Comment 38-14

The commenter asserts that the EIR's GHG analysis is selective and incomplete and understates potential impacts, particularly the project's cumulative contribution of carbon emissions in the "context of existing Annapolis, Sonoma County, and North Coast existing and forecast future vineyard acreages, including the (CEQA-foreseeable) proposed Preservation Ranch project."

The requirements for analysis of cumulative impacts under CEQA are set forth in section 15130 of the CEQA Guidelines, which states that evaluation of cumulative impacts requires a "list" or "summary of projections" to provide the framework of projects that constitute the cumulate scenario. (CEQA Guidelines, § 15130, subd. (b).) CEQA Guidelines section 15130 describes the requirement to evaluate a proposed project's potential to contribute to cumulative impacts in the project or program area. "Cumulative impact" refers to the combined effect of "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (CEQA Guidelines, § 15355.) CEQA requires the lead agency to consider the project in combination with the effects of all past, present, and reasonably foreseeable future projects to determine the cumulative effect on the region because, even though a single project may have individually minor impacts, when considered together with other projects, the effects may be collectively significant. A cumulative impact, then, is the additive effect of all projects in the same geographic area.

These traditional rules of CEQA analysis must be applied to the type of cumulative impact at hand in accordance with the rule of reason, however. (CEQA Guidelines, § 15130, subd. (b) [the EIR's discussion of cumulative impacts "should be guided by the standards of practicality and reasonableness"].) While the combination of GHG emissions from past, present, and future projects contributes to the phenomenon of global climate change and its associated environmental impacts, because this issue is global in nature, the "list" or "summary of projections" of past, present, and future projects would necessarily include projects throughout the world.

As a result of this methodological complexity, air districts that have actually set quantitative thresholds of significance for GHG emissions, such as the Bay Area Air Quality Management District, have not developed a separate cumulative impact threshold. The few quantitative thresholds that have been set to date by local air districts are project-level thresholds with the recognition that GHG emissions are a cumulative issue. For example, the California Air Pollution Control Officers' Association ("CAPCOA") document on CEQA and Climate Change states that "…GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective."[8]

[8] CAPCOA, *CEQA and Climate Change*, January 2008, page 35.

Therefore, the Fairfax Conversion GHG/climate change analysis contained in the Cumulative Impacts chapter of the Fairfax Conversion Draft EIR, as updated in the RDEIR, is consistent with the standard approach to evaluating GHG impacts, which recognizes that climate change is a global issue and each project contributes individually to the overall cumulative generation of GHGs throughout the world, and as a result each project must be assessed as such (i.e., at the project-level). The commenter's assertion that this approach understates project impacts is incorrect; on the contrary, as shown in the comprehensive analysis of the project's potential impacts related to climate change in the Draft EIR and RDEIR, the methodology likely overstates project impacts.

The local scale or even regional scale (in this case, Sonoma County) is not the proper cumulative setting of climate change, as suggested by the commenter, but the global scale. Given the inability to assess the project in light of all past, present, and future projects on a global scale, air districts and CAPCOA have developed, and are continuing to develop, methodologies and thresholds that take this complexity into account and accordingly enable the lead agency to focus on a project's individual contribution to this global issue.

Response to Comment 38-15

The GHG analysis included in Chapter 4, *Cumulative Impacts*, of the Partially Recirculated DEIR assesses the long-term carbon emissions and C sequestration of both forest and vineyard uses on-site.

Response to Comment 38-16

Rootstocks will be selected based on specific performance criteria, including but not limited to vigor, resistance to pests and diseases, compatibility with expected soil moisture conditions, and compatibility with grape varietals planted. Drought tolerance will be considered as one of many selection factors, even though suitable water supplies are available for irrigated vineyard operation, even under dry year conditions. Grape roots typically are observed in vineyard test pits to depths of 4' or greater, where annual soil moisture variance is minimized and where nutrient availability evolves slowly over time. Such deep-rooted vines are not expected to exhibit sensitivity to short-term variations in surface applied water and nutrient availability. They are expected to exhibit drought tolerance, and are expected to perform in a vigorous manner over time.

Irrigation scheduling and fertilizer application, if any, are practiced early in the annual production cycle when vines are rapidly growing and when fruit is being set and matured. Both practices generally cease as harvest nears, because excess water and nutrients can undesirably prolong the vegetative growth season, negatively impacting grape sugar content, which in any case is most highly correlated with cumulative degree-days prior to harvest.

Response to Comment 38-17

Please see Responses to Comments 7-5, 19-19, and 38-18.

Response to Comment 38-18

The DEIR evaluates a reasonable range of alternatives to the proposed project in Chapter 6, *Alternatives Analysis*, including alternative locations. The DEIR on pages 6-2 through 6-3 explains how the alternatives were selected to inform the decision-making process.

The type of evaluation that the commenter requests was conducted by reviewing maps of Sonoma County displaying soils, elevations, and slopes similar to the project site. As discussed in the DEIR, very specific criteria pertaining to soil type and microclimate must be met to satisfy the proposed project's basic objectives. In addition, the potential site must be of comparable size to attain most of the proposed project objectives. Based on extensive evaluation, the DEIR determined that sites of appropriate acreage that include most of the necessary site characteristics are quite rare. Nevertheless, the DEIR considered offsite alternatives, as well as a reduced acreage alternative and two "no project" alternative scenarios. See also Response to Comment 40-40.

Furthermore, as described in detail in the DEIR, the proposed project's potentially significant impacts will be avoided or reduced to less-than-significant levels through implementation of mitigation measures. Under such circumstances, consideration of a broader range of alternatives is not warranted (CEQA Guidelines, § 15126.6.).

In addition, the GHG analysis for the project included in Chapter 4, *Cumulative Impacts*, of the Partially Recirculated DEIR, addresses loss of forest biomass and carbon stocks. The topsoil microbial community is not a protected resource and the specific concern the commenter has regarding this community is not explicitly stated, thereby precluding a more specific response.

Response to Comment 38-19

The seasonal wetlands on the project site and the mitigation wetlands that are proposed to be constructed on the project site do not provide suitable bullfrog breeding habitat. Per the project Vineyard Plan, an impervious synthetic (16 millimeter HDPE) geotextile liner will be installed in the proposed vineyard reservoir on the project site. This liner will prohibit the establishment of both emergent and shoreline riparian vegetation. Thus, there would be no "escape habitat" in the lined reservoir that could be used by bullfrogs to escape their predators. In addition, in the absence of emergent and riparian vegetation in lined ponds, they do not support a prey base sufficient to support a breeding bullfrog population.

During Monk & Associates' 2009 California red-legged frog surveys on the project site, M&A also conducted amphibian surveys at selected accessible vineyard ponds within 5 miles of the project site. While bullfrogs were detected in unlined ponds, they were not detected during nocturnal and diurnal surveys conducted at lined vineyard ponds. Lined ponds provide no food sources or (predator) escape habitat for the bullfrog. This is one of the primary reasons that the proposed vineyard pond will be constructed with a liner. While bullfrogs could disperse through the project site, now and/or after construction of the proposed vineyard pond, the project site will not provide suitable breeding habitat for bullfrogs. Accordingly the proposed vineyard pond will

not support a breeding bullfrog population and otherwise act as a "bullfrog predator sink" for native amphibians and other biota known from the vicinity of the project site.

For a detailed response concerning pesticides, see Response to Comment 7-9. For a detailed response regarding groundwater concerns, see Responses to Comments 7-14, 7-15, and 12-5.

Response to Comment 38-20

The total work area consists of the portion of property to be cleared and redeveloped to vineyard. The total work area has been reduced from 190 acres to 173 acres due to project adjustments made as a response to DEIR comments as well as agency comments during the Pre-Harvest Inspection (PHI) as part of the Timber Harvest Plan (THP) process. Gross vineyard acreage is a subset of the total work area and includes perimeter and interior avenues and other *unplantable* areas. Net vineyard acres include the portion of the work area actually dedicated to vines, rows, and trellising systems. The 20-acre thin-lobed horkelia and Annapolis manzanita conservation easements in the original DEIR have been incorporated into the larger 151-acre preserve and conservation areas now proposed (see the clarification below in Table 2-1 of the DEIR Project Description).

Non-vineyard uses are not new, and have increased from 20 to 27 acres between May 2009 and November 2010 (i.e., date of the latest Vineyard Plan) primarily due to increased exclusion areas within the defined work area. The nomenclature was changed from "perimeter grading" to "non-vineyard uses" to best characterize the actual utilization of the many small subareas. The non-vineyard uses include the following:

- Minor perimeter grading to create leveled or outsloped vineyard avenues on sloped hillsides. These areas contain soils, vegetation, and slopes consistent with the remainder of the property under development. A graded slope above or below the perimeter avenue would be the primary visual manifestation of this category of space utilization. These areas are located within the original project work area limits as field-flagged by the forestry consultant during project development.
- Preserved redwood clusters
- An archaeological site
- Detention basins
- Other vineyard avenues
- Offsets to Ordinary Waters
- Offsets to Class III Waters
- Rocked fords
- Sump spillway outfall
- Pump station
- Increase or adjustment of mitigation setbacks to channels and riparian areas.
- Straightening of irregular edges
- Unit 6d roadway entrance encroachment

The cumulative area is not monolithic, but consists of many subareas that are small and are diffusely scattered throughout the work area. They tend to be separators that are narrow and

linear in nature. None are appropriate, suitable, or planned for site development or grading except for installation of perimeter avenues. The uses noted remain consistent between the DEIR and RDEIR.

For clarification purposes, Table 2-1, "Vineyard Unit Areas," on page 2-16 of the Project Description chapter is hereby revised as follows to reflect the latest Vineyard Plan (see Figure 1-1 of this Final EIR).

Table 2-1
Vineyard Unit Areas

Unit	Acres
1a	~~13.1~~12.9
1b	~~2.1~~1.9
1c	~~4.3~~5.5
1d	~~6.0~~5.1
2	~~14.3~~13.3
3	1.~~6~~1.9
4	6.1
5a	~~9.5~~8.3
5b	6.2
5c	0.4
6a	~~3.7~~7.7
6b	~~6.4~~5.4
6c	~~9.9~~1.4
7a	19.9
7b	6.3
~~7c~~	~~0.4~~
8a	5.8
8b	~~9.0~~8.3
~~8c~~	~~10.0~~
Net Vineyard Area	**~~135~~116.4 Ac**
Corporation Yard	1Ac
Reservoir and Sump	9 Ac
Perimeter Avenues	~~23~~18 Ac
Driveway and Roads	2 Ac
Perimeter Grading, Internal Avenues, Basins, Edges	~~20~~27 Ac
Total Project Area	**~~190~~173* Ac**
CONSERVATION EASEMENT Horkelia, manzanita, wetland preserves	**20.0**
Other forest/riparian reserve acreage	**131**
TOTAL Conservation	**151**

Easement/Reserve Area	
*** Total does not equal 173.4 because corp yard is now actually less than 1 acre. It has been rounded up in this table.**	

Response to Comment 38-21

Please see Response to Comment 38-20.

Response to Comment 38-22

Please see Responses to Comments 7-5 and 7-6.

Response to Comment 38-23

Please see Responses to Comments 7-5 and 7-6.

Response to Comment 38-24

Please see Responses to Comments 7-5 and 7-6.

Response to Comment 38-25

The commenter indicates that the review of ethnographic literature fails to meet his standards for semi-quantitative analysis of site distribution. The RDEIR clearly states (3.5-22) that review (or analysis) of the distribution of ethnographic sites within the Kashia (Kashaya) territory shows that there are at least three locations that have higher densities of archaeological sites than are found in the Annapolis vicinity.

The Ohlson Ranch formation is an upland geologic formation that extends from approximately Kruse Ranch Road, north into southern Mendocino County, a distance of roughly 20 miles. The contention that the Ohlson Ranch formation is unique to the Annapolis area is only accurate if one defines the Annapolis area as encompassing this entire distance.

The commenter suggests that applying GIS analysis to ethnographic information would provide for a more objective assessment of the relationship of the Fairfax property with local archaeological resources. This fails to take into account that the data used for GIS mapping of the ethnographic information would be subjective, based on the interpretation of the person doing the input. Therefore the result would simply have an illusion of higher accuracy. The review of ethnographic information provided in the EIR was conducted by a highly qualified expert in conformance with accepted methods, and fully satisfies the informational purposes of CEQA.

Response to Comment 38-26

The commenter notes that the DEIR and RDEIR have focused on cultural resources that are within the study area and have the potential to be impacted by the project. The commenter has further described the greater project vicinity as a "continuous soil and topographic unit" with ethnographic sites concentrated in this continuous range. The implication appears to be that these natural features create an especially high density of cultural deposits. This fails to account for the areas, at both higher and lower elevations, and in very different ecological zones, that also have high densities of sites.

To treat this area as being of greater importance than the other ecological zones used by the Native Americans would completely fail to take into account the documented Native American lifeways, which have been corroborated by archaeological research, showing that the same group, even the same family, would use an extensive area in the course of their yearly subsistence cycle. To suggest that sites in the redwood zone are of greater significance than those on the coastal terrace or along the river would be to discount a large portion of Kashia culture. The commenter is seeing a lot of sites in the zone he has designated, because that is the place he has chosen to look. The presence of large numbers of off-property resources neither elevates nor reduces the importance of the resources on the Fairfax property.

Response to Comment 38-27

Under CEQA, a 'threshold of significance' is a criterion established by an agency to aid in determining whether a project will have an impact on the environment; therefore, the commenter's declaration that something is a threshold of significance when no agency has established such a threshold, is an unwarranted assumption of authority.

In the second element, the commenter suggests that applying GIS analysis to ethnographic information would provide for a more objective assessment of the relationship of the Fairfax property with local archaeological resources. This fails to take into account that the data used for GIS mapping of the ethnographic data would be subjective, based on the interpretation of the person doing the input. Therefore, the result would simply have an illusion of higher accuracy.

Response to Comment 38-28

The commenter provides a variety of graphics and text that lead to the conclusion that the Fairfax Conversion property is in the vicinity of several ethnographic sites. This corresponds to the findings of the RDEIR, which acknowledges that several ethnographic sites are in the vicinity. The commenter provides a list of six references that he used to establish the locations of these ethnographic sites. Of the references cited, only Barrett (1908) is compiled directly from original interviews. The others rely on Barrett's work, interpreting his descriptions of site locations. It is noteworthy that Gifford and Kroeber (1939:119) state that, "Kroeber's map in particular must be used with extreme caution . . . nothing more than a commitment with respect to conjectures".

The commenter again suggests that application of GIS to this information would yield a greater level of accuracy in identifying ethnographic locations. This is simply not realistic when one

considers the amount of subjective interpretation that has already been applied to the information over the past 100 years. Barrett's information was provided by Native American informants. Barrett, often without field checking locations, created a map based on his understanding of the informant's descriptions of village locations. Subsequent researchers modified Barrett's map correcting perceived errors in directions or locations. Current researchers have found that Native American scholars identify different locations in the same general area with the same names as some of Barrett's named villages.

These factors underscore that mapping of ethnographic locations is by its nature subjective. The locations, dimensions, and any other properties used for GIS plotting of these locations would necessarily be based on the experience and opinions of the people entering the data.

Response to Comment 38-29

The commenter raises two basic points: 1) the Fairfax property is within a "valid archaeological district"; and 2) the property is within a "unique archaeological resource".

Regarding the creation of an archaeological district, the creation of an archaeological district that encompasses only the Fairfax property is inappropriate, as is creating a district based on geographic proximity. Please see Responses to Comments 13-13 and 42-8.

Addressing the second point, regarding unique archaeological resources, this criterion does not apply, by definition. A "unique archaeological resource" is defined as "…an archaeological artifact, object, or site…" Each of these terms further has a specific definition that clearly establishes it as a discrete manifestation rather than the aggregate of features.

An archaeological "artifact" is a single item such as a mortar, or a projectile point, that was made by humans.

> The term "object" is used to describe those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed, as opposed to a building or a structure. Although it may be movable by nature or design, an object is associated with a specific setting or environment. Objects should be in a setting appropriate to their significant historic use, role, or character. Objects that are relocated to a museum are not eligible for listing in the California Register. Examples of objects include fountains, monuments, maritime resources, sculptures, and boundary markers. CCR Title 14 Chapter 11.5 §4852(a)(4)
>
> A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historical, cultural, or archeological value regardless of the value of any existing building, structure, or object. A site need not be marked by physical remains if it is the location of a prehistoric or historic event, and if no buildings, structures, or objects marked it at that time. Examples of such sites are trails, designed landscapes, battlefields, habitation sites, Native American

ceremonial areas, petroglyphs, and pictographs. CCR title 14 Chapter 11.5 §4852(a)(1)

Response to Comment 38-30

The commenter contends that because of the environmental factors such as soils, plants, and topography which are present in the Annapolis vicinity, the area should be designated an archaeological district. While environmental features are important contributors to the locations of archaeological resources, not all areas with a shared suite of environmental factors will contain archaeological sites. This contention further fails to take into account the reality of Native American land use patterns, which encompass a multiplicity of ecological zones simultaneously. To create a district from one area, isolated from the others would be to artificially elevate that ecological setting above equally (or possibly more) important zones.

The commenter further takes issue with the RDEIR statement that there is a lack of sufficient data to correctly define a district. While there are many archaeological sites in the Kashia and Southern Pomo traditional homelands, the creation of a district requires identifying the entire geographic extent of the district and all of the contributing resources. To comprehensively identify resources outside the boundaries of the Fairfax property is clearly beyond the scope of this environmental document.

Response to Comment 38-31

The commenter indicates that he believes the "unique archaeological and prehistoric cultural setting of Annapolis" would qualify the location as a "unique archaeological resource". This category specifically applies to "…an archaeological artifact, object, or site…" A setting cannot qualify as an artifact, object, or site under the definitions of these resources. Please see Response to Comment 38-29 for definitions of these terms.

Response to Comment 38-32

Please see Response to Comment 38-30.

Response to Comment 38-33

The commenter suggests that the Fairfax Conversion DEIR includes mitigation whereby non-expert/unqualified equipment operators are responsible for detecting archaeological resources. This statement is inaccurate. Mitigation measure 3.5-3(a), as included in Chapter 3.5, *Cultural Resources*, of the Fairfax Conversion Partially Recirculated DEIR, requires the following:

3.5-3(a) *Prior to the issuance of grading permits, the applicant shall hire a qualified archeologist to prepare an archaeological monitoring plan for the review and approval ~~of the County Permit and Resource Management Department~~. by the CAL FIRE Northern Region-Coast Area Archaeologist and the Stewarts Point Rancheria THPO ~~(or his representative).~~ ~~At a minimum the plan shall cover the Neri "Noted Find" locations and all areas within 100 feet of previously identified~~*

~~archaeological sites, including those sites.~~ The plan shall include, but not necessarily be limited to the following measures:

- *~~Any location with prehistoric Native American material shall require both a~~ Native American monitor(s) (representing the Stewarts Point Rancheria tribe and designated by the Stewarts Point Rancheria THPO) and an archaeological monitor(s) shall be present during earth-moving activities associated with the proposed project.*
- *Historical features shall be considered historically significant if the feature is a discrete deposit identifiable to the period of significance for the two mills, or if the deposit relates to substantially earlier occupation and the agricultural activities on the project site.*
- *Prehistoric Native American deposits shall be considered an archaeological site if three or more cultural items are found within an area measuring roughly ten feet on a side.*
- *Archaeological deposits that retain a strong focus, that is the ability to clearly represent the activities that created the deposit, shall be considered to have sufficient integrity to meet the criteria for listing on the National Register.*
- *Identified sites shall be avoided by establishing construction fencing around the perimeter of ~~the~~ each site designated for this type of protection to prevent damage from vineyard development activities. Vineyard workers shall be trained regarding the importance of cultural materials.*
- *If the resources cannot remain in situ, ~~a program of investigation appropriate to the resource shall be developed. To the extent feasible, exiting research designs shall be incorporated into investigation programs.~~ Mitigation Measure 3.5-2(c) shall be implemented (i.e., Data Recovery Plan).*

~~The Tribal Historic Preservation Officer for the Kashia Band of Pomo Indians has provided general information regarding the Kashia needs for monitoring and treatment of human remains. It is recommended that the project applicant enter into an agreed treatment plan with the tribe prior to beginning any ground disturbing activities in the project area.~~

Under the first bullet point it is clear that the EIR requires that a Native American representative of Stewarts Point Rancheria and an archaeological monitor be present during earth moving activities associated with the proposed project. Furthermore, the first bullet of Mitigation Measure 3.5-3(a) of the EIR is hereby further revised to clarify that both a Native American representative of the Stewarts Point Rancheria and an archaeological monitor will be present during *all* earth moving activities associated with the proposed project.

- *~~Any location with prehistoric Native American material shall require both a~~ Native American monitor(s) (representing the Stewarts Point Rancheria tribe and designated by the Stewarts Point Rancheria THPO) and an archaeological monitor(s) shall*

be present during all earth-moving activities associated with the proposed project.

Response to Comment 38-34

Please see Responses to Comments 21-8 and 42-3.

Response to Comment 38-35

Please see Response to Comment 38-9.

Response to Comment 38-36

Please see Response to Comment 38-9.

Response to Comment 38-37

Please see Responses to Comments 7-14 and 7-15.

Response to Comment 38-38

Please see Response to Comment 38-8.

Response to Comment 38-39

Please see Response to Comment 38-12.

Response to Comment 38-40

Please see Response to Comment 38-8. In addition, regarding the anticipated minimal use of pesticides on-site due to the applicant's commitment to Integrated Pest Management (IPM), see Response to Comment 7-9.

Response to Comment 38-41

Please see Response to Comment 38-14.

Response to Comment 38-42

Please see Response to Comment 38-15.

Response to Comment 38-43

Please see Response to Comment 38-8.

Response to Comment 38-44

The commenter refers to the comments submitted by Tom Gaman and indicates his concurrence with Mr. Gaman's comments. See the responses to Mr. Gaman's letter on the RDEIR, which is Letter 39 of this Final EIR.

Response to Comment 38-45

Please see Response to Comment 7-8.

Response to Comment 38-46

Please see Response to Comment 38-16.

Response to Comment 38-47

Please see Response to Comment 7-9.

Response to Comment 38-48

Please see Response to Comment 7-9.

Response to Comment 38-49

The commenter suggests that the entire DEIR, not just two sections, should be recirculated. This is not warranted as demonstrated in the above responses to comments.

Response to Comment 38-50

Please see Response to Comment 38-29.

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Letter 39

Thomas Gaman, Registered Forester #1776

April 10, 2011

Mr. Allen Robertson
California Department of Forestry and Fire Protection
P.O. Box 944246
Sacramento, CA 94244-2460

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

39-1 I am a California Registered Forester and a Society of American Foresters Certified Forester. I have degrees in forestry from UC Berekeley 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.

39-2 The authors of the documents contend that the project would sequester an additional 19,185 metric tons of CO_2e 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.

39-3 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.

39-4 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.

Letter 39 Cont'd

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

39-5 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[1]. 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_2e 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.

39-6 The DEIR analysis acknowledges that the "other carbon pool" loss of 24.58 Mg carbon per acre (90.2 Mg CO_2e/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.

39-7 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.

39-8 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

[1] See step 4 rows 6 to 12 in the "Inventory_Growth_Harvest" worksheet of Appendix R. The growth rates vary dramatically.

Letter 39 Cont'd

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 Converstion 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_2e, 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

LETTER 39: TOM GAMAN – EAST-WEST FORESTRY ASSOCIATES, INC.

Response to Comment 39-1

The comment is introductory and does not address the adequacy of the EIR.

Response to Comment 39-2

The comment expresses general concerns that are specifically elaborated upon in the comments that follow. See Responses to Comments 39-3 through 39-11.

Response to Comment 39-3

The commenter questions the credibility of the "Calfire spreadsheet" as a method of carbon dioxide analysis based on an asserted lack of source documentation provided in the EIR.

Under CEQA, the EIR must provide sufficient analysis and factual support to serve as an informational document and permit full assessment of significant environmental impacts. (CEQA Guidelines, §§ 15147, 15120, 15151, 15204, subd. (a).) These requirements do not compel the lead agency to circulate all the information it relies upon to reach its conclusions, and the level of technical detail provided more than satisfies CEQA's informational standards. (CEQA Guidelines, § 15147; *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1190-1191 [rejecting claim that EIR should have included additional information supporting agency's hydrology analysis, such as rainfall rates, hydraulic routing, and other drainage data].) Highly technical and specialized analysis need not be included in the document, and doing so would require many volumes, often for a relatively small piece of information. Furthermore, the lead agency is permitted to rely on the expertise of its staff in identifying the appropriate methodology for analyzing a potential impact. (*Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th1383, 1397.) The EIR includes sufficient data to enable the public and reviewing agencies to understand the project's environmental effects and fully serves its purpose as an informational document (See also Response to Comment 37-9).

Response to Comment 39-4

The quantities of the forest resources are based upon an ocular estimation of the resources on-site. The forester making these estimations has been a Registered Professional Forester for over 13 years and has extensive experience estimating the volumes of timber resources on harvest areas. The forester making these estimations has also spent approximately 100 hours on-site and is very familiar with the site, standing inventory, management history, forest age and hardwood composition of the project area.

Response to Comment 39-5

The growth estimates have not been manipulated to skew the output; rather the estimates provided are different to reflect the different growth rates of a harvested stand, which would

occur in the No Project – Timber Resource Management Alternative as compared to a non-harvested stand, which would occur in the project reserve areas. The growth rates are higher for the project reserve areas because no future harvests are proposed for these areas and therefore as basal area and volume increases, the board-foot volume growth rate will reflect an increase as well. The growth rates provided for the project reserve areas are based on conservative estimates derived from yield tables presented in Bulletin 796, "Empirical Yield Tables for Young Growth Redwood" by Lindquist and Palley.

Response to Comment 39-6

The commenter is correct in pointing out that redwood forests are one of the fastest growing forests types and also correctly implies that larger trees store more carbon than smaller trees and brush species. The proposed project will create a 151-acre forest reserve protecting the fast growing redwood forest and will allow the trees to grow to a larger state where they will be capable of storing more carbon than if they were periodically harvested under the No Project - Timber Resource Management Alternative. This difference is presented in Table 4-7 of the Partially Recirculated DEIR (RDEIR) and shows that the larger trees in the unmanaged forest reserve will sequester 1.73 C metric tons/acre while the trees in a managed forest, which would be smaller due to periodic harvest would sequester 0.468 C metric tons/acre. It also stands to reason that forest soils in an unmanaged forest reserve that receive a constant supply of nutrients from the vegetation above will sequester more carbon than the soils of a managed timberland that are entered on a regular basis and have much of the nutrient contributing vegetation removed. This is reflected in the differing soil carbon estimates in Table 4-7. The conclusion that the proposed project as a whole, including the 151-acre forest reserve, will sequester more carbon than a managed forest is based upon the combination of the forest reserve's potential to sequester large amounts of carbon, combined with sequestration from the proposed vineyard while considering carbon lost as the result of conversion. The analysis presented does not imply that the vineyard will sequester more carbon than a sustainably managed forest.

Response to Comment 39-7

The permanent deed restriction will prohibit timber harvesting within the restricted areas and these areas will be fenced and retained as open space and wildlife habitat, as reflected in the updated project description language included on page 2-2 of Chapter 2, *Revisions to the DEIR Text*, of this Final EIR. The only operations proposed within the easement areas will be the construction of mitigation wetlands, planting of riparian habitat and placement of large woody debris following the timber harvest on the conversion areas.

Response to Comment 39-8

Please see Responses to Comments 39-3 and 39-6.

Response to Comment 39-9

The comment does not address the adequacy of the EIR analysis.

Response to Comment 39-10

Contrary to the commenter's assertion, "potentially significant impacts" to horkelia, Annapolis manzanita, northern spotted owl, red-legged frog, yellow-legged frog, and migratory bird habitat, are not "unmitigated." Impacts to thin-lobed horkelia are addressed in Impact Statement 3.4-1 of the Biological Resources Chapter of the DEIR. Mitigation Measure 3.4-1 ensures that the applicant shall establish a 15.65-acre preserve on lands that have been designated on the west side of the project site that will protect the largest population of thin-lobed horkelia from the proposed project impacts. This preserve will be dedicated in a permanent deed restriction recorded on the title of the property that shall run with the land in perpetuity. See Response to Comment 1-23 for the revised language of MM 3.4-1. Annapolis manzanita is addressed in Impact Statement 3.4-2 of the Biological Resources Chapter. Mitigation Measure 3.4-2 ensures that the applicant shall set aside an area totaling approximately 4.4 acres on the east side of the project site for the preservation of Annapolis manzanita identified on the Artesa property. The reserve shall be dedicated in perpetuity through a permanent deed restriction recorded on the title of the property. See also Response to Comment 1-23 for the revised language of MM 3.4-2.

Regarding northern spotted owl, as discussed in detail in Response to Comment 1-15, northern spotted owls have not been detected on or in the vicinity of the project site to date during the multiple USFWS protocol-level surveys conducted on-site. Notwithstanding this, the DEIR includes rigorous mitigation measures for northern spotted owl to ensure that impacts would not occur to northern spotted owl should they be detected on-site at a future date. See Response to Comment 1-15 for the revised northern spotted owl mitigation measure language. The DEIR also adequately addressed potential impacts to red-legged frog and yellow-legged frog. Foothill yellow-legged frog is address in Impact Statement 3.4-9 of the Biological Resources Chapter and red-legged frog is addressed in Impact Statement 3.4-10. The DEIR includes adequate mitigation measures for both frog species to ensure their protection. See also Response to Comment 1-8 for further discussion regarding these species. As stated in the DEIR and Response to Comment 1-8, no CRLF were identified on or immediately adjacent to the project site during the project biologist's protocol surveys. While "migratory bird habitat" is not a protected resource, migratory birds and their eggs and/or young are protected under the federal Migratory Bird Treaty Act. Impacts to nesting birds, including raptors, are addressed in Impact Statements 3.4-5 and 3.4-6 of the Biological Resources Chapter. Mitigation Measures 3.4-5 and 3.4-6 require intensive preconstruction surveys for nesting birds should harvesting/conversion/land clearing and/or grading occur during the breeding season. If nesting birds are detected, the mitigation measure requires adequate buffers be employed until such time that young fledge and reach independence of the nest. See Response to Comment 1-17 for the revised language for Mitigation Measure 3.4-5. With implementation of the above-noted mitigation measures, all above-discussed potentially significant impacts would be reduced to a less-than-significant level.

Response to Comment 39-11

The commenter appears to be unaware of the DEIR's evaluation of two No Project Alternatives. The commenter only refers to the No Project – Timber Resource Management Alternative, which does anticipate harvesting of on-site timber in conformance with the Forest Practice Rules.

However, the DEIR also evaluates a No Project – No Action Alternative, which is defined as follows on page 6-4 of the Alternatives Analysis chapter of the DEIR:

> The No Project – No Action Alternative would include no timberland conversion, no planting of vineyards, and no construction of buildings or any associated infrastructure. The No Project – No Action Alternative would allow the continued existence of the project site in its current state. While this Alternative would not meet the project objectives, CEQA requires the Alternative to be analyzed.

Furthermore, under the "Biological Resources" discussion for the No Project – No Action Alternative, the following is stated:

> Implementation of the No Project – No Action Alternative would, in effect, act as a conservation easement for the project site. Under the No Project – No Action Alternative the site would remain in its current state: trees would not be removed, the site would not be graded, vineyards would not be planted, and buildings and/or infrastructure would not be constructed. Therefore, the No Project – No Action Alternative would result in reduced impacts to sensitive status plant and animal species or any associated habitats.

Response to Comment 39-12

Please see Responses to Comments 39-2 through 39-11.

GECO
Grassetti Environmental Consulting

Letter 40

Mr. Allen Robertson
California Department of Forestry and Fire Protection
P.O. Box 94426
Sacramento, CA 94244-2460

April 26, 2011

SUBJECT: FAIRFAX CONVERSION PROJECT PARTIALLY RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT COMMENTS

Dear Mr. Robertson;

On July 28, 2009, Grassetti Environmental Consulting (GECo) submitted written comments on the Draft Environmental Impact Report (DEIR) for the Fairfax Conversion Project on behalf of Friends of the Gualala River (FOGR). This letter incorporates by reference those earlier comments and provided additional comments on the recirculated document's Project Description, Cultural Resources and Greenhouse Gas analyses. It also summarizes previously identified deficiencies that, in our opinion, should also have required substantive remedial revisions and recirculation. This review was conducted by Richard Grassetti, the firm's principal, and is based on my nearly 30 years of experience in CEQA document preparation, review, and training of CEQA professionals. In preparing these comments, I reviewed the original DEIR and Partially Recirculated DEIR, visited the site vicinity in Annapolis, and reviewed other available materials including letters from citizens and environmental groups. I also have reviewed and incorporated by reference, either in this letter or in my 2009 letter, the independent expert technical analyses of hydrology, fisheries, forestry/greenhouse gas, and cultural resources prepared for FOGR. My comments are summarized below: 40-1

The Partially Recirculated Draft Fails to Address Substantive Deficiencies Identified in Our July 2009 Comment Letter

Specifically: 40-2

- The DEIR remains overly optimistic in its conclusions of impact severity and effectiveness of mitigation measures, and now extends this unsupported optimism to the new greenhouse gas analysis (discussed below).

- The issue of the long-term treatment of non-vineyard lands on the site has not been addressed. What uses might occur on those lands, and what might be the impacts of those uses. 40-3

- The rDEIR fails to address the original basic deficiencies in the alternatives analysis with respect to off-site alternatives for producing premiere North Coast grapes with minimized or avoided forest conversion impacts. These basic deficiencies were compounded by changed wine grape economic and vineyard real estate market conditions during and following the DEIR circulation period. The feasibility of off-site alternatives is now 40-4

40-4 Cont'

increased because the vineyard acreage has been reduced. Local Annapolis vineyard lease alternatives were/are available during the DEIR review and scoping period but were ignored in the alternatives analysis. An obvious example is Hamel Winery in Healdsburg, which leases Campbell vineyards in Annapolis, near the Fairfax site, on the same soil type with essentially the same local climate, with of the same grape varietals that Artesa proposes at the project site. In addition, adverse economic conditions in North Coast wine grape markets, and in particularly northern Sonoma County, have made many additional vineyards available for sale or lease, which do not require forest conversion impacts. This is discussed further under Potentially Outdated Analyses, below.

40-5

- There is still no written commitment to enforceable dry farming, which calls into question assumptions in the hydrologic/water use analysis. The consequence of this lack of commitment is potential significant impacts to groundwater resources from potential future unregulated groundwater extraction to compensate for failed rainfall-dependent irrigation reservoirs during (foreseeable) multiple drought years.

40-6

- The total volume of timber to be removed remains unresolved because there has been no disclosed inventory of the site's timber resources (see additional discussion of this below and in Gaman letter).

40-7

- Noise associated with mechanical harvesting has not been evaluated.

40-8

- County entitlements (including possible lot consolidation) and potential inconsistencies with the County's General Plan and zoning have not been disclosed; absent this disclosure, it is unclear if CDF or the County is the appropriate lead agency under CEQA.

40-9

- The inappropriate conclusion that the County's Right-to-Farm ordinance will assure mitigation of any land use conflicts has not been addressed.

40-10

- Numerous deficiencies in the biological resources assessment, as detailed in comments on the DEIR by Dr. Peter Baye, have not been remedied.

40-11

- Deficiencies in analysis of the project's impacts on fisheries, as detailed in Patrick Higgins' comment letter on the DEIR, have not been addressed.

40-12

- Numerous deficiencies in the hydrologic, water supply, and erosion analysis identified in our earlier comment letter and the Kamman Hydrology comment letter on the DEIR have not been addressed.

40-13

- Traffic associated with logging operation has not been addressed.

40-14

- Noise significance level criteria remain in error and noise impacts on sensitive receptors remain partially unanalyzed.

40-15

- The aesthetic analysis remains flawed, including the change in the landscape character, night lighting, elimination of forest, etc.

40-16

- Cumulative impacts associated with other large conversions of forest and brush to vineyards in the area remain inadequately evaluated, with the EIR relying on an outdated (now 14 year old) U. C. study in the face of clear evidence that the study does not represent currently planned cumulative projects. This failure is detailed in our previous letter.

The Revised Project Description is Unclear and Unstable, resulting in Potentially Inaccurate Impact Conclusions

The recirculated and revised project description is difficult to compare with the 2009 DEIR, making the rDEIR's comparisons of impacts potentially inaccurate and impossible to verify.

CEQA considers "an accurate, stable, and finite project description" to be "*the sine qua non* of an informative and legally sufficient EIR" (County of Inyo v. City of Los Angeles, 1977). This is because it is impossible to accurately identify impacts (and develop mitigation measures for those impacts) in the absence of a stable and complete project description. One of the ways that an EIR's project description can be deficient is through omission of details necessary to adequately and accurately assess impacts. 40-17

In the case of the project's DEIR and rDEIR, there are two major deficiencies. First, neither the 2009 DEIR nor the 2011 rDEIR addresses potential future activities on the lands outside of the vineyard work areas (which are 133/134 acres, and 151 acres, respectively – see the table below). Both the 2009 and 2011 DEIRs inaccurately describe that land as entirely forested (see, for example, DEIR, page 1-7), when, in fact, the land is only partially forested (see summary of RPF Gaman's comments, below). This inaccuracy results in a highly skewed GHG analysis (see discussion of GHG issues, below).

In addition, both the 2009 and 2011 DEIR documents state that the project would include a "… permanent deed restriction over approximately of land composed of the south-draining tributaries to Patchett Creek in the central portion of the site, and additional biologically rich or culturally significant areas. " However, there is nothing in either Draft EIR stating the terms of that deed restriction, or whether it would, in fact, prohibit forestry on the non-vineyard portions of the property. On March 18, 2011, I sent several emails to you requesting additional description of the terms of that easement, and received the response that no additional information would be provided (see Attachment A to this letter). The 2009 DEIR also included a 20-acre conservation easement, which has apparently disappeared in the 2011 Project Description. There was no description of what this easement would actually restrict or conserve, or how it would do so. 40-18

Absent this information, the DEIR's assumptions regarding potential future forestry operations on the remaining 151 acres both best-case and unsupported. The EIR should be revised to include the full text of the proposed easement and/or deed restrictions, clearly spelling out what uses would be permitted and which uses would not be permitted. If permitted uses include forestry operation on the remaining 151 acres, the full potential impacts of those operations should be evaluated, including GHG emissions, biological resource impacts, hydrology and water quality impacts, and potential impacts to cultural resources, which, in another substantive deficiency, appear not to have been evaluated for this 151-acre portion of the site (see Deficiencies in Cultural Resource Evaluation, below). 40-19

The 2011 Project description eliminates the 20 acres of perimeter grading from the 2009 DEIR Project Description and replaces that with 27 acres of "Unspecified Uses". 27 acres is a large area to leave unspecified in the Project Description. The DEIR should have informed the reader of the possible range of uses for this acreage – might it be 40-20

40-20 Cont'

developed with winery, worker facility, or other structures? Or will it be graded? In any case, there is no evidence in the rDEIR that the impacts associated with potential uses of these 27 acres have been evaluated.

40-21

Finally, as noted in our earlier comments, the maps in this EIR are so overly complex and the information on them so poorly portrayed that it impossible for the layperson to understand the project as presented.

Both individually and combined, these deficiencies and instabilities in the Project Description are substantial enough to impermissibly "stultify the objectives of the reporting process" (County of Inyo v. City of Los Angeles) and thereby fail to provide the public and decision-makers the CEQA-mandated meaningful opportunity to fully consider environmental impacts in evaluating the project.

40-22

2009 DEIR	**2011 Partially Recirculated DEIR**
Work Area Total Project Work Area - 190 acres • Net Vineyard Area - 135 acres • Corporation Yard – 1 acre • Reservoir and Sump - 9 acres • Perimeter Avenues - 23 acres • Driveway and Roads - 2 acres • Perimeter Grading - 20 acres 20 acre Conservation Easement (location unspecified - potentially in the Work Area)	**Work Area** Work Area Limit- 173 acres • Non-Vineyard (unspecified use) - 27 acres • Gross Vineyard - 146 acres o 116 acre net vineyard o 18 acre perimeter avenues o 9 acre reservoir, sump o 2 acre driveway, roads o 1 acre corporation yard
Remaining Forested/Reserved Lands Forested with "permanent open space easements" - 133 acres (rDEIR, p. 1-7) or 134 acres	**Remaining Forested/Reserved Lands** Reserve/Set-Aside - 151 acres "Permanent deed restriction …over land composed of the south-draining tributaries of Patchett Creek in the central portion of the site and additional biologically rich or culturally significant areas"
Total: 323-4 acres	**Total: 324 acres**

The Revised GHG Analysis Remains Deficient

40-23

The recirculated document includes a new greenhouse gas (GHG) analysis based on CalFire's new GHG calculator. That analysis was reviewed by Thomas Gaman, RPF, and his comments have been submitted to you under separate cover[9]. In summary, Mr. Gaman identified a number of substantive deficiencies in the new GHG analysis, specifically with respect to the calculations. These deficiencies are matters of fact, and are not professional disagreements among experts. They are summarized below:

[9] Letter from Thomas Gaman, RPF, East-West Forestry Associates, to Allan Robertson, CDF, April 10, 2011

40-23 Cont'
- There is no transparency in the model. Methods are undocumented, no source material is provided, and the accuracy model is impossible to verify. It is a black box and, as such, does not meet CEQA requirements for full disclosure and verification.

40-24
- The model is based on assumed quantities of timber resources and not on an actual inventory of existing resources. Absent an inventory of these resources, there is no substantial evidence supporting the quantities of forest resources entered into the model. In forester Gaman's words, "The numbers are imaginary."

40-25
- The forest growth estimates have been manipulated to skew the model output. Growth rates have been lowered for the no-project alternative and raised for the project. If growth rates for the two scenarios are normalized, the results are the opposite than those contained in the recirculated DEIR, namely, that the project would result in a net loss in carbon sequestration over the 100-year calculation period. Gaman has provided a normalized spreadsheet supporting this conclusion. (See step 4 rows 6 to 12 in the "Inventory Growth Harvest" worksheet of Appendix R. The growth rates vary dramatically.)

40-26
- Other carbon pools presented in the recirculated DEIR analysis are in error and defy both logic and science.

40-27
- The GHG analysis' assumption that the site would be heavily logged absent the project is unsupported. First, given the archaeological and sensitive biological resources of the site, a permanent deed restriction limiting forestry operations would likely be applied to a large portion of the site, as with the project. Second, as described by Mr. Gaman, much of the remaining portions of the site are not suitable for logging, just as they are not suitable for viticulture.

40-28
- From a practical 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. The option to conserve the 305-acre forest as a restoration forest preserve should also be considered as a likely 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, an estimated additional 98,305 tons of CO2e, above and beyond the vineyard option, would in this case be sequestered in the coming century. In any case, given the site's sensitive resources, the EIR's assumption that the entire site would be repeatedly logged under the No Project Alternative is infeasible and incorrect.

In addition to Mr. Gaman's comments, the revised analysis contains the following substantive CEQA deficiencies:

40-29
- The revised GHG analysis assumes that the application of a "permanent deed restriction" on 151 acres of the property would eliminate any potential forestry activities. However, as describe above, neither the 2009 DEIR nor the 2011 rDEIR provide any evidence that forestry could not occur on under the proposed easements, because the DEIRs present no information regarding what actual restriction those easements would contain.

40-30
- The DEIR states that the proposed project would include the preservation of 151 acres of forested acres, yet much of this acreage is not, in fact, forested, but rather brushy or open.

40-30 Cont'

Absent a map and inventory of "forest" lands, it is not possible to accurately address the project's GHG impacts. However, assuming that brushlands are forested lands is clearly in error.

40-31

- The GHG analysis still fails to address project-plus-cumulative emissions/loss of storage of GHGs from the project in combination with other planned or approved forest conversion project in the surrounding forests, including the nearby Preservation Ranch project.

40-32

- CEQA establishes a firm baseline for analyzing project impacts (see *Sunnyvale West Neighborhood Assn. v. Sunnyvale City Council* (*190 Cal.App.4th 1351*). Under that baseline, the project's reduction in carbon sequestration must be compared with existing carbon sequestration on the site, not carbon sequestration in 100 years. The use only of hypothetical baseline conditions is impermissible under the Sunnyvale decision. The EIR's impact assessment should be revised to include a discussion of the significance of the short-term loss of carbon sequestration resulting from logging of the 173 acres proposed for conversion. The results of that short-term analysis should be *one of the criteria* used to determine the project's significance.

Deficiencies in the Cultural Resources Evaluation

40-33

Numerous mitigation measures (e.g. 3.5.2(a), 3.5.2(b), 3.5.2(c)) propose consultation between various archaeologists and representatives of agencies, the applicant, and tribes, to develop fence locations, site boundary markings, monitoring, and post monitoring actions if additional resources are found. The mitigations fail to disclose or address which representative would have final say over these issues. We suggest that either the tribe's representative or CalFire's representative be formally designated as the decision-maker and responsible agent to assure compliance with the mitigation measure.

40-34

In addition, the mitigations do not say which representative will be responsible for developing and implementing additional mitigation measures should additional finds or expanded sites be encountered. Additionally, no mitigation strategies are identified should such finds occur. The EIR must identify, at a minimum, the range of strategies that could be applied to any newly discovered resources and the parties responsible for implementing those strategies.

40-35

Mitigation Measure 3.5-2 relies upon untrained heavy equipment operators to identify cultural resources that may be encountered during project clearing, grading and site preparation. Not only are these operators unskilled in detecting cultural resources, they are typically under schedule and budget constraints that conflict with the potential work stoppages that may occur when cultural materials are encountered. Therefore, for the mitigation measure to be effective, it must be revised to include an independent archaeologist and/or tribal representative trained in cultural resource identification being on-site at all times during the clearing, grading, and site preparation stages of project implementation.

40-36

In addition, as described earlier in this letter, the cultural resource assessments fail to consider the remaining 151 acres of the site proposed for some sort of deed restriction. Given that the DEIR fails to disclose any actual restrictions on future uses of that land, it is possible that future forestry operations may adversely affect any cultural resources on that portion of the project site. This potential impact should be fully assessed.

Certain Analyses in Unrecirculated Portions of the DEIR are Outdated

CEQA requires recirculation of an EIR if there is significant new information that may result in new significant impacts. That new information can result from changes in the environmental setting, among other causes (see CEQA Guidelines, Section 15088.5(a)).

40-37 The Draft EIR for the project was circulated for public review in May 2009, approximately two years ago. Since that time, several changes have occurred that warrant re-assessment of some of the impacts evaluated in the 2009 DEIR and not included in the current rDEIR. These include

- Star Cross has installed an irrigated olive orchard adjacent to the proposed project site. Cumulative water demands of the two projects on the local aquifer should be addressed.

40-38
- More recent data on precipitation and streamflows, and their effects on both sensitive species and water supply, should be incorporated into the hydrology discussion and those flows should be considered in the setting and impact assessments. The multi-year drought of 2007, 2008, 2009, caused significant decline in steelhead populations and unprecedented dewatering of Wheatfield Fork of the Gualala River and its tributaries; impacts to threshold for significant impacts to steelhead, yellow-legged frogs, western pond turtles (native sensitive species) and survivorship of non-native invasive bullfrog populations (favored in absence of scouring high flows).

40-39
- Impacts of new NTMPs and THPs granted in the project area since 2009 should be incorporated into the DEIR's project-plus-cumulative hydrology, biological resources, cultural resources, and aesthetics analyses.

Additionally, off-site alternatives should be reconsidered in light of changing market conditions for premium grapes and the availability of new feasible off-site alternatives that would not result in any new impacts. These properties would not require any grading or removal of trees, grading, land clearing, changes to irrigation, or disturbance to cultural resources. For example, the following vineyards that would meet all or most of the project objectives with NO new impacts to the environment are currently listed for sale:

- The 160-acre Shenoa property in the Anderson Valley. (http://www.norcalvineyards.com/shenoa.html).

40-40
- A 104-acre premium wine estate property in the Ukiah area (http://www.norcalvineyards.com/3300_oldriverroad.html).
- The 242-acre Grasso Ranch in Potter Valley, which includes 188 acres planted in pinot, chardonnay, and other premium grape species. (http://www.rereader.com/listman/listings/l0421.shtml.)
- The 591-acre Yorkville Highlands vineyard has 118 acres planted in vineyards (http://www.rereader.com/listman/listings/l0652.shtml).
- The 202-acre Vimark vineyard in Redwood Valley includes 125 acres of premium vines (http://www.rereader.com/listman/listings/l0396.shtml).

Conclusions

40-41 In summary, it remains my professional opinion that, given the extent of the flaws detailed above and in our July 2009 letter, this partially recirculated DEIR still does not meet CEQA requirements for full disclosure of potential impacts of the proposed project as well as cumulative projects. It will require substantive revisions including identification of potentially unavoidable adverse impacts; reassessment of biological resources, hydrology, noise, aesthetic, and greenhouse gas impacts; substantial revisions of the alternatives analysis; and re-assessment of many of the cumulative impacts. Once revised, the DEIR should be again recirculated for public review. Please feel free to contact me at 510 849-2354 if you have any questions regarding the comments herein.

Sincerely

Richard Grassetti
Principal
Grassetti Environmental Consulting

Appendix A – Email Correspondence Between Richard Grassetti, GECO, Allen Roberston, CalFire, and Nick Pappani, Rainey Planning and Management, Regarding Deed Restriction Proposed as Mitigation

Mr. Grassetti:

Understood; however, the RDEIR has been widely distributed for public and agency review and must stand on its own until the comment period ends. Your comments as to the adequacy of the RDEIR, submitted in a manner consistent with CEQA, will be considered by CAL FIRE upon completion of the comment period.

Allen Robertson

From: richard grassetti [mailto:gecons@aol.com]
Sent: Friday, March 18, 2011 3:27 PM
To: Robertson, Allen
Cc: baye@earthlink.net; npappani@raneymanagement.com
Subject: Re: Fairfax Conversion Partially Recirculated Draft EIR Notice of Availability

Mr. Robertson - This is not a comment on the document; those will be submitted later - it is a question regarding the proposed project description. Absent this information it is not possible to acurately evaluate the GHG emissions/analysis in the Recirculated DEIR.

Richard Graseetii

-----Original Message-----
From: Robertson, Allen <Allen.Robertson@fire.ca.gov>
To: 'richard grassetti' <gecons@aol.com>
Cc: baye@earthlink.net <baye@earthlink.net>; npappani@raneymanagement.com <npappani@raneymanagement.com>
Sent: Fri, Mar 18, 2011 3:21 pm
Subject: RE: Fairfax Conversion Partially Recirculated Draft EIR Notice of Availability

Mr. Grassetti,

CAL FIRE will consider your questions and concerns, along with those submitted by other agencies and members of the public, in a formal response to comment at the close of the public comment period. Please submit your comments to CAL FIRE in the manner and by the deadline stated in the Notice or Availability for this project.

Thank you for your inquiry.

Allen Robertson

From: richard grassetti [mailto:gecons@aol.com]
Sent: Friday, March 18, 2011 2:32 PM
To: npappani@raneymanagement.com
Cc: Robertson, Allen; baye@earthlink.net
Subject: Re: Fairfax Conversion Partially Recirculated Draft EIR Notice of Availability

Hi Nick - I had a question regarding the project description; the original DEIR summary stated:

The proposed project also includes the establishment of a permanent deed restriction over approximately 134 acres of land composed of the south-draining tributaries to Patchett Creek in the central portion of the site, and additional biologically rich or culturally significant areas.

I haven't been able to find anything more in the EIR regarding the terms of this deed restriction. What would it allow or not allow? Specifically, would some level of timber harvesting be permitted on the part of the land not included in the vineyard or special protected areas?

thanks-

Richard Grassetti
510 849-2354

LETTER 40: RICHARD GRASSETTI – GRASSETTI ENVIRONMENTAL CONSULTING

Response to Comment 40-1

The comment is introductory and does not specifically address the adequacy of the EIR. See below responses to more specific comments as well as the responses to the commenter's original letter on the DEIR, which is Letter 10 of this Final EIR.

Response to Comment 40-2

The comment does not provide evidence supporting the claim that "The DEIR remains overly optimistic in its conclusions of impact severity and effectiveness of mitigation measures." The mitigation measures included in the DEIR as revised in this Final EIR are rigorous mitigation measures designed by a team of technical resource specialists and reviewed and approved by lead agency CAL FIRE and responsible agencies such as the California Department of Fish and Game and the Regional Water Quality Control Board. For specific responses to GHG comments, see Responses to Comments 40-23 through 40-32 below.

Response to Comment 40-3

The ambiguity of the comment precludes a specific response. However, see Response to Comment 40-17 for a description of the minor activities anticipated to occur in the "non-vineyard" lands on the project site.

Response to Comment 40-4

Please see Response to Comment 40-40 below.

Response to Comment 40-5

Please see Response to Comment 10-6.

Response to Comment 40-6

Please see Response to Comment 10-9.

Response to Comment 40-7

Please see Response to Comment 10-17.

Response to Comment 40-8

Please see Responses to Comments 10-18 and 10-20.

Response to Comment 40-9

Please see Response to Comment 4-18.

Response to Comment 40-10

Please see responses to Letter 7 of this Final EIR, which includes responses to Dr. Peter Baye's biological resource comments on the DEIR referenced by the commenter.

Response to Comment 40-11

Please see responses to Letter 12 of this Final EIR, which includes responses to Patrick Higgins' fisheries comments on the DEIR referenced by the commenter.

Response to Comment 40-12

Please see responses to Letter 16 of this Final EIR, which includes responses to Kamman Hydrology's comments on the DEIR referenced by the commenter. See also responses to Letter 10 of this Final EIR, which includes responses to Grassetti Environmental's original comments on the DEIR.

Response to Comment 40-13

Please see Response to Comment 10-60.

Response to Comment 40-14

Please see Responses to Comments 10-63 through 10-67.

Response to Comment 40-15

Please see Responses to Comments 10-68 and 10-70.

Response to Comment 40-16

Please see Response to Comment 10-72.

Response to Comment 40-17

The commenter's assertion that much of the preserve is brushy or open is incorrect. Currently the 151-acre reserve area is composed of 130 acres of mature second growth conifer forest. The remaining 21 acres is composed of grassy openings, brushy areas mixed oak woodland or wetlands. Within these 21 acres, however, are varying amounts of conifer trees that are recapturing the site following the historical attempts to convert the area to agriculture use. Over the 100-year assessment period, conifer and or hardwood trees are expected to be the dominant vegetation in these areas with the exception of approximately 5 acres of wetland habitat that

would not support timberland. Given that there is a conifer component to the vegetation on these acres and that these acres meet the definition of "timberland" included in the Forest Practice Rules, these areas were included in the GHG calculations as forested. If the 5 acres of wetland habitat that will not support timberland were removed from the calculation of carbon sequestered in the reserve areas, the total amount of CO2e sequestered over the 100-year planning period would be reduced from 95,796 to 92,624 Mg or approximately 3%. The estimates of carbon sequestration however, are averaged project wide and are not analyzed on an acre by acre basis. The estimates are averaged over the entire project area because no forestland includes uniform tree cover on every acre. The 5 acres of wetland area would still be sequestering some carbon in the vegetation growing on site and this minimal area has been averaged into the overall sequestration rate for the reserve area.

The permanent deed restriction will prohibit timber harvesting within the restricted areas and these areas will be fenced and retained as open space and wildlife habitat, as reflected in the updated project description language included on page 2-2 of Chapter 2, *Revisions to the DEIR Text*, of this Final EIR. The only operations proposed within the preserved areas will be the construction of mitigation wetlands, planting of riparian habitat and placement of large woody debris following the timber harvest on the conversion areas.

Response to Comment 40-18

The 20-acre reserve area listed in Table 2-1 of the DEIR Project Description has not disappeared; rather the 20-acre thin-lobed horkelia and Annapolis manzanita reserves in the original DEIR have been incorporated into the larger 151-acre preserve area now proposed.

As discussed in Response to Comment 38-20, for clarification purposes, Table 2-1, "Vineyard Unit Areas," on page 2-16 of the Project Description chapter is hereby revised as follows to reflect the latest Vineyard Plan (see Figure 1-1 of this Final EIR).

Table 2-1
Vineyard Unit Areas

Unit	Acres
1a	~~13.1~~12.9
1b	~~2.1~~1.9
1c	~~4.3~~5.5
1d	~~6.0~~5.1
2	~~14.3~~13.3
3	1.~~6~~1.9
4	6.1
5a	~~9.5~~8.3
5b	6.2
5c	0.4
6a	~~3.7~~7.7
6b	~~6.4~~5.4
6c	~~9.9~~1.4
7a	19.9

7b	6.3
~~7c~~	~~0~~.4
8a	5.8
8b	~~9.0~~8.3
~~8c~~	~~10.0~~
Net Vineyard Area	**~~135~~116.4 Ac**
Corporation Yard	1Ac
Reservoir and Sump	9 Ac
Perimeter Avenues	~~23~~18 Ac
Driveway and Roads	2 Ac
Perimeter Grading, Internal Avenues, Basins, Edges	~~20~~27 Ac
Total Project Area	**~~190~~173* Ac**
CONSERVATION ~~EASEMENT~~ AREA Horkelia, manzanita, wetland preserves	**20.0**
Other forest/riparian reserve acreage	**131**
TOTAL Reserve Area	**151**
*** Total does not equal 173.4 because corp yard is now actually less than 1 acre. It has been rounded up in this table.**	

Response to Comment 40-19

Please see Response to Comment 40-17. Regarding the commenter's concern of the ability of the minor activities anticipated in the deed restricted areas to impact cultural resources, see Response to Comment 40-36 below.

Response to Comment 40-20

Please see Response to Comment 38-20.

Response to Comment 40-21

Please see Figure 1-1 in the Introduction Chapter to this Final EIR, which consists of figures detailing the latest Vineyard Plan.

Response to Comment 40-22

Please see Responses to Comments 40-18 and 40-20.

Response to Comment 40-23

Under CEQA, the EIR must provide sufficient analysis and factual support to serve as an informational document and permit full assessment of significant environmental impacts. (CEQA Guidelines, §§ 15147, 15120, 15151, 15204, subd. (a).) These requirements do not compel the lead agency to circulate all the information it relies upon to reach its conclusions, and the level of technical detail provided more than satisfies CEQA's informational standards. (CEQA Guidelines, § 15147; *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1190-1191 [rejecting claim that EIR should have included additional information supporting agency's hydrology analysis, such as rainfall rates, hydraulic routing, and other drainage data].) Highly technical and specialized analysis need not be included in the document, and doing so would require many volumes, often for a relatively small piece of information. Furthermore, the lead agency is permitted to rely on the expertise of its staff in identifying the appropriate methodology for analyzing a potential impact. (*Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th1383, 1397.) The EIR includes sufficient data to enable the public and reviewing agencies to understand the project's environmental effects and fully serves its purpose as an informational document.

Response to Comment 40-24

Please see Responses to Comments 37-9 and 39-4.

Response to Comment 40-25

The growth estimates have not been manipulated to skew the output; rather the estimates provided are different to reflect the different growth rates of a harvested stand, which would occur in the No Project – Timber Resource Management Alternative as compared to a non-harvested stand, which would occur in the project reserve areas. The growth rates are higher for the project reserve areas because no future harvests are proposed for these areas and therefore as volumes increase, the growth rates will reflect an increase as well. The growth rates provided for the project reserve areas are based on conservative estimates included in normal yield tables.

Response to Comment 40-26

The carbon pools presented in the Partially Recirculated DEIR (soil, litter, standing dead, lying dead, understory and live trees) account for all carbon that will be impacted by the proposed project. The inclusion of these pools is based on an analysis of FIA data as a means of approximating other carbon pools in relation to the project.

Response to Comment 40-27

Please see Response to Comment 37-16.

Response to Comment 40-28

The commenter appears to be unaware of the DEIR's evaluation of two No Project Alternatives. The commenter only refers to the No Project – Timber Resource Management Alternative, which does anticipate harvesting of on-site timber in conformance with the Forest Practice Rules. However, the DEIR also evaluates a No Project – No Action Alternative, which is defined as follows on page 6-4 of the Alternatives Analysis chapter of the DEIR:

> The No Project – No Action Alternative would include no timberland conversion, no planting of vineyards, and no construction of buildings or any associated infrastructure. The No Project – No Action Alternative would allow the continued existence of the project site in its current state. While this Alternative would not meet the project objectives, CEQA requires the Alternative to be analyzed.

Furthermore, under the "Biological Resources" discussion for the No Project – No Action Alternative, the following is stated:

> Implementation of the No Project – No Action Alternative would, in effect, act as a conservation easement for the project site. Under the No Project – No Action Alternative the site would remain in its current state: trees would not be removed, the site would not be graded, vineyards would not be planted, and buildings and/or infrastructure would not be constructed. Therefore, the No Project – No Action Alternative would result in reduced impacts to sensitive status plant and animal species or any associated habitats.

Response to Comment 40-29

Please see Response to Comment 40-17.

Response to Comment 40-30

Please see Response to Comment 40-17.

Response to Comment 40-31

Please see Response to Comment 38-14.

Response to Comment 40-32

The commenter cites the appellate decision in *Sunnyvale West Neighborhood Association v. City of Sunnyvale City Council* (2010) 190 Cal.App.4th 1351 regarding CEQA baseline requirements and asserts that the EIR's analysis of project impacts associated with short-term loss of carbon sequestration relies on an impermissible hypothetical baseline.

Section 15125 of the CEQA Guidelines requires an EIR to include a description of the "environmental setting" – the physical environmental conditions in the vicinity of a project that exist at the time of publication of the Notice of Preparation. (CEQA Guidelines, § 15125; see also Response to Comment 37-16.) The environmental setting normally constitutes the baseline

physical conditions by which the lead agency determines whether an impact is significant. In the *Sunnyvale* case, however, the City of Sunnyvale prepared an EIR for a new road that was projected to open in 2020. To analyze the project's traffic impacts, the City compared projected traffic conditions in 2020 without the project and the projected traffic conditions in 2020 with the project. The EIR also described the existing traffic conditions; but it did not actually analyze the project's traffic impacts against the existing traffic levels, and nowhere did it add together just (1) the existing traffic levels and (2) the project's traffic.

The *Sunnyvale* court rejected this approach. The court acknowledged earlier case law holding that lead agencies have discretion in selecting the baseline against which they measure a project's environmental impacts. The court emphasized, however, that the baseline, in whatever manner it is calculated, must reflect existing conditions. Thus, the City erred by selecting a baseline that was years in the future. In the court's words, "[t]he statute requires the impact of any proposed project to be evaluated against a baseline of existing environmental conditions, which is the only way to identify the environmental effects specific to the project alone."

In the present situation, the EIR for the proposed project fully complies with these requirements by assessing the impacts of the project in relation to the existing baseline physical conditions, as well as in relation to the No Project scenario and the cumulative scenario, as CEQA requires. (CEQA Guidelines, §§ 15125, 15126.6, subd. (e), 15130; see also Responses to Comments 37-16, 37-17.)

Response to Comment 40-33

The EIR mitigation appropriately identifies the parties responsible for carrying out the mitigation requirements. It is not necessary to specify who "would have final say over these issues" as all the parties involved operate within established regulatory frameworks as well as under a professional code of ethics.

Response to Comment 40-34

The EIR mitigation measures identify the strategies that would be applied to any newly discovered resources and the parties responsible for implementing those strategies. For example, Mitigation Measure 3.5-3(a) requires the preparation of an archaeological monitoring plan for approval by the CAL FIRE Northern Region-Coast Area Archaeologist and the Stewarts Point Rancheria THPO, which requires either avoidance of newly discovered resources, or if resources cannot remain in situ, data recovery, as set forth in detail in Mitigation Measure 3.5-2(c).

Response to Comment 40-35

Please see Response to Comment 38-33. The commenter suggests that the Fairfax Conversion DEIR includes mitigation whereby non-expert/unqualified equipment operators are responsible for detecting archaeological resources. This statement is inaccurate. Mitigation measure 3.5-3(a), as included in Chapter 3.5, *Cultural Resources*, of the Fairfax Conversion Partially Recirculated DEIR, requires the following:

3.5-3(a) *Prior to the issuance of grading permits, the applicant shall hire a qualified archeologist to prepare an archaeological monitoring plan for the review and approval ~~of the County Permit and Resource Management Department~~. by the CAL FIRE Northern Region-Coast Area Archaeologist and the Stewarts Point Rancheria THPO ~~(or his representative).~~ ~~At a minimum the plan shall cover the Neri "Noted Find" locations and all areas within 100 feet of previously identified archaeological sites, including those sites.~~ The plan shall include, but not necessarily be limited to the following measures:*

- *~~Any location with prehistoric Native American material shall require both a~~ Native American monitor(s) (representing the Stewarts Point Rancheria tribe and designated by the Stewarts Point Rancheria THPO) and an archaeological monitor(s) shall be present during earth-moving activities associated with the proposed project.*
- *Historical features shall be considered historically significant if the feature is a discrete deposit identifiable to the period of significance for the two mills, or if the deposit relates to substantially earlier occupation and the agricultural activities on the project site.*
- *Prehistoric Native American deposits shall be considered an archaeological site if three or more cultural items are found within an area measuring roughly ten feet on a side.*
- *Archaeological deposits that retain a strong focus, that is the ability to clearly represent the activities that created the deposit, shall be considered to have sufficient integrity to meet the criteria for listing on the National Register.*
- *Identified sites shall be avoided by establishing construction fencing around the perimeter of ~~the~~ each site designated for this type of protection to prevent damage from vineyard development activities. Vineyard workers shall be trained regarding the importance of cultural materials.*
- *If the resources cannot remain in situ, ~~a program of investigation appropriate to the resource shall be developed. To the extent feasible, exiting research designs shall be incorporated into investigation programs.~~ Mitigation Measure 3.5-2(c) shall be implemented (i.e., Data Recovery Plan).*

~~The Tribal Historic Preservation Officer for the Kashia Band of Pomo Indians has provided general information regarding the Kashia needs for monitoring and treatment of human remains. It is recommended that the project applicant enter into an agreed treatment plan with the tribe prior to beginning any ground disturbing activities in the project area.~~

Under the first bullet point it is clear that the EIR requires that a Native American representative of Stewarts Point Rancheria and an archaeological monitor be present during earth moving activities associated with the proposed project. Furthermore, the first bullet of Mitigation Measure 3.5-3(a) of the EIR is hereby further revised to clarify that both a Native American

representative of the Stewarts Point Rancheria and an archaeological monitor will be present during *all* earth moving activities associated with the proposed project.

- *~~Any location with prehistoric Native American material shall require both a~~ Native American monitor(s) (representing the Stewarts Point Rancheria tribe and designated by the Stewarts Point Rancheria THPO) and an archaeological monitor(s) shall be present during all earth-moving activities associated with the proposed project.*

Response to Comment 40-36

As discussed in Response to Comment 40-17, the permanent deed restriction will prohibit timber harvesting within the restricted areas and these areas will be fenced and retained as open space and wildlife habitat, as reflected in the updated project description language included on page 2-2 of Chapter 2, *Revisions to the DEIR Text*, of this Final EIR. The only operations proposed within the reserve areas will be the construction of mitigation wetlands, planting of riparian habitat and placement of large woody debris following the timber harvest on the conversion areas.

The limited activities proposed for the deed-restricted areas will occur outside of the archaeological site locations. The THP includes a confidential archaeological addendum that specifies protection measures for all archaeological sites and these protection measures (such as no ground disturbance, required Native American monitors, etc.) have to be followed for all activities, including those conducted in the restricted areas.

Response to Comment 40-37

As described in the Project Description chapter of the DEIR, the Fairfax Conversion project will collect and store diffuse surface runoff sheet flow that would otherwise discharge off-site during winter months. The collected water is in excess of that infiltrating to groundwater, and so would not affect the local water table or adjoining wells. The stored water would be used for vineyard irrigation purposes.

Because Starcross has no irrigation reservoir, it is reasonable to assume that they are using well water for irrigation purposes. By observation, it is also reasonable to assume that they are using highly efficient drip irrigation at low agronomic rates for irrigation. While not having access to Starcross' irrigation scheduling and use, it can reasonably be assumed that they do not and will not jeopardize their existing domestic water supply by wasteful or inefficient use of their groundwater resource.

Because the Fairfax Conversion project will not use groundwater for irrigation, nor will it adversely affect groundwater recharge, and because adjoining properties are not using surface runoff for irrigation, the sources are disconnected both in space and time, and thus will not result in cumulative impacts.

Response to Comment 40-38

Recent data on precipitation and streamflows may provide additional information on hydrological conditions in Patchett Creek and Wheatfield Fork of the Gualala River. However, as fully discussed in Chapter 3.7 of the DEIR, the vineyard conversion project is expected to result in a small increase in runoff as compared to existing conditions. Downstream flows from the project site into lower Patchett Creek and the Wheatfield Fork of the Gualala River would not be expected to be lower under project conditions. As such, the proposed project would not be expected to have a negative effect on downstream water channel levels or aquatic wildlife. Additional hydrological data thus would not be useful or necessary.

Response to Comment 40-39

A review of the CAL FIRE THP database indicates that there have been two THPs and no NTMPs filed within the assessment area since 2009, amounting to approximately 250 acres. However, another important consideration is the extent to which THP and/or timberland conversion applications included in the DEIR's cumulative setting have now been withdrawn and are no longer being processed. There are at least two such conversion applications -- both the Roessler and Sleepy Hollow Conversions are no longer being actively processed and the environmental review of said applications has ceased. The changes to the overall cumulative setting since the release of the DEIR for public review are minimal and would not result in any changes to the impact conclusions concerning hydrology, biological resources, cultural resources, and aesthetics.

Response to Comment 40-40

The commenter suggests that off-site alternatives should be reconsidered in light of changing market conditions for premium grapes and the asserted availability of feasible vineyard lease or purchase alternatives. The commenter lists the 160-acre Shenoa property in the Anderson Valley, the 104-acre property in the Ukiah area, the 242-acre Grasso Ranch in Potter Valley, the 591-acre Yorkville Highlands vineyard and the 202-acre Vimark vineyard in Redwood Valley as off-site alternatives that the commenter asserts "would meet all or most of the project objectives with NO new impacts to the environment."

The commenter misstates the standards for alternatives analysis under CEQA, mischaracterizes the objectives and impacts of the proposed project, and mischaracterizes the nature and character of the alternative locations listed in the comment. Review of the sites based on the information provided in the comment readily shows that these "off-site alternatives" are not at all comparable to the proposed project site, are not feasible in any sense of the term as it is used in CEQA, and would result in increased, rather than reduced, environmental impacts particularly in light of their substantially-longer distances (and increased vehicle miles traveled) from vineyard to winery.

Analysis of alternatives under CEQA is governed by the rule of reason and requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. (CEQA Guidelines, § 15126.6 subd. (f).) Alternatives to the proposed project shall be limited to those that would

substantially lessen any of the significant effects of the project, and the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. (*Ibid.*) An EIR need not consider every conceivable alternative to a project or alternatives that are infeasible.

The EIR's analysis of alternatives, including potential off-site alternatives, more than satisfies these requirements and remains accurate. (DEIR, pp. 6-1 – 6-12.) The EIR provides sufficiently detailed analysis of a reasonable range of alternatives to allow the agency evaluating the project to make a reasoned decision, in compliance with the requirements of CEQA.

In addition, each of the five potential alternative locations listed in the comment is located in Mendocino County. None of these locations is within the Sonoma Coast appellation. (http://www.sonomawine.com/about-sonoma-county/sonoma-county-appellations.) As such, none achieves the basic objectives of the proposed project, which are highly dependent on the specific premium appellation of coastal Sonoma County. (DEIR, p. 2-6; see also Responses to Comments 7-5, 19-19, and 38-18) Appellations vary significantly in quality and value in addition to soil type and micro-climate. (http://www.sonomawine.com/about-sonoma-county/sonoma-county-appellations.) By definition, the Sonoma Coast appellation is unique and distinct and is not simply interchangeable with Mendocino appellations. (*Ibid.*) The effects of changing market conditions cited in the comment vary widely among appellations, and the commenter's generalizations do not reflect the viticultural or economic realities of the industry. For example, areas on the east side of Paso Robles may struggle while areas on the west side enjoy much stronger demand. (http://www.allbusiness.com/agriculture-forestry/agriculture-agriculture/5525246-1.html.) Land values and grape prices in Napa and Sonoma appellations typically do not experience the same level of decline as others during "bust" cycles, or may stabilize more quickly and experience higher values during "boom" cycles.

Boom and bust cycles are an inherent element of the wine industry. "Anyone who studies the economics of the wine business eventually comes to realize that wine is fundamentally an agricultural product with the boom and bust market cycles that ag markets are prone to experience because supply cannot quickly adjust to changes in price and demand."[10] These cycles influence, but from a practical standpoint cannot dictate, the long-range planning decisions of wine businesses such as the project applicant.

Furthermore, the five potential alternative locations listed in the comment do not meet the basic project objectives because they are all highly-developed compounds that include massive commercial ventures beyond the type of vineyard proposed by the project. For example, the Shenoa property cited by the commenter includes 36 structures with 29,000 square feet of roofing including 8 guest residences and 11 cabins. The property includes a historic redwood lodge and dining hall with full commercial kitchen, an office building with conference room and private offices, a heli-pad, heated saline pool, hot tub, tennis courts, laundry, gym, and related resort facilities.[11] The project applicant is not seeking to develop a resort; it is not in the business of operating resorts; and the property cited by the commenter is not comparable to the vineyard site that is the subject of the EIR. The same is true for the other four properties cited in the

[10] /http://wineeconomist.com/2007/09/18/vineyard-economics-boom-and-bust-in-the-global-wine-market/
[11] /http://www.norcalvineyards.com/shenoa.html

comment, which are residential estates, rural residential lots, and similar properties that are not conducive to growing the Sonoma Coast Chardonnay and Pinot Noir varietals that are integral to the basic objectives of the proposed project.[12] Each of the commenter's proposed alternatives, moreover, would result in significant and potentially unavoidable environmental impacts given their substantially increased distances (and increased vehicle miles traveled) from the applicant's processing facilities.

Response to Comment 40-41

The comment provides a conclusion to the specific concerns included in the letter. Please see Responses to Comments 40-1 through 40-40. As demonstrated in the responses to this letter and the remainder of the detailed responses included in this Final EIR, additional sections of the Fairfax Conversion DEIR do not require recirculation given the adequacy and accuracy of the original impact analysis. While this Final EIR includes additional information to the DEIR, as presented in summary form in Chapter 2, *Revisions to the DEIR Text*, of this Final EIR, the added information is for clarification purposes and does not result in the identification of any new significant environmental impacts resulting from the project.

[12]/http://www.norcalvineyards.com/images/listings/3300_oldriverroad/3300_oldriverroad.pdf [Mendocino County "turnkey" estate with large residence and outbuildings including equipment shop and office, planted in blocks of multiple varietals, none of which include pinot noir]; http://www.rereader.com/listman/listings/l0421.shtml [Potter Valley rural residential properties with 2 homes and related outbuildings, planted in blocks of multiple varietals, none of which include pinot noir]; http://www.rereader.com/listman/listings/l0652.shtml [600-acre Mendocino County property with three homes]; http://www.rereader.com/listman/listings/l0652.shtml [200-acre estate/retreat property in Mendocino County].

Letter 41

Friends of the Gualala River

PO Box 1543, Gualala, CA 95445 (707) 886-5182 GualalaRiver.org

Mr. Allen Robertson
California Department of Forestry and Fire Protection
P.O. Box 944246
Sacramento, CA 94244-2460
(916) 657-0300
SacramentoPublicComment@fire.ca.gov
Via e-mail

April 26, 2011

SUBJECT: FAIRFAX CONVERSION PROJECT PARTIALLY RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT COMMENTS

Dear Mr. Robertson:

41-1

Friends of the Gualala River (FOGR) is submitting these written comments to add to the files on this project and to incorporate by reference earlier comments sent in to the DEIR file by FOGR on July 26th, 2009. This letter is joined by a letter in support of FOGR's CEQA comments submitted by Emilio Valencia, the Tribal Historic Preservation Officer (THPO) for the Kashia Band of Pomo Indians of the Stewarts Point Rancheria.

FOGR is a non-profit, volunteer, citizens organization concerned with the protection and enhancement of the Gualala River and its watershed. More broadly we are concerned about the health and wellbeing of north coast rivers and the coastal ecosystem.

41-2

From that referenced 2009 comment letter:
Page 1-6 of Vol. 1 of the DEIR Comments:
"Summary of Comments Received on the Notice of Preparation
and Previously Prepared Mitigated Negative Declaration"

"The following list is a summary of concerns taken from comments made at the scoping meeting, comment letters received prior to the close of the 30-day comment period, and comment letters received on the previous negative declaration. Many of the comments received on the previous negative declaration addressed the need to prepare an EIR, such comments are not included in the below summary as they are not relevant to this document. All of the environmental issues raised by the commenters on the previous MND as well as the more recent comments submitted during the NOP commend period have been included in the below summary, **and addressed in the EIR where appropriate**." (emphasis added)
Comment: Contrary to the above assertion, very few of the 120 specific substantive concerns outlined in the comment letters starting on page 1-6 were directly

Letter 41 Cont'd

addressed in the DEIR. In addition, next to none were addressed using supporting data or scientific studies. If mentioned, most were dismissed offhand as insignificant potential impacts. The following are examples of the few mentions of these specific concerns and their non-substantial dismissals."

41-2 Cont'd -From FOGR 2009 DEIR comment letter

As of this writing in April 2011, nearly all of the concerns listed in the 2009 comment letter remain unaddressed by the applicant. The two areas listed as re-circulated and presently open for comment, the Cultural Resources and Greenhouse Gas analyses are seriously flawed and have been addressed by submitted letters on behalf of FOGR by experts in their respective fields. FOGR comments on the two analyses follow.

Cultural Resources

41-3 The April 24, 2011 letter on behalf of FOGR from Dr. Peter R. Schmidt, Professor of Anthropology and Archaeology of the University of Florida clearly states that standard practices dictate "a more thorough investigation of the site using an implementation of rigorous surface and subsurface surveys that have been previously recommended, but ignored." This ignored level of more thorough study is needed due to the recognized importance of the site as individually significant but also due to its relationship to neighboring sites. The need to designate the complex of sites including the Artesa site as an archeological "district" is just one is one of the main recommendations of this expert. The recommendation is in part based on the applicant's own references to its importance being "somewhat unique as a District" on p. 3.5-3.9 of the DEIR.

41-4 No reference is included to any discoveries and their cumulative cultural resources impacts from the archeological investigations in the nearby massive 20K acre Preservation Ranch vineyard project.

41-5 The submitted April 24, 2011 letter from the Tribal Historic Preservation Officer (THPO) for the Kashia Band of Pomo Indians of the Stewarts Point Rancheria supporting FOGR's defense of the tribe's interests is a powerful indicator that there is a local recognition of the importance of this site culturally and archeologically. This well known, historically named site is held unique as a trading village and for its size and importance in the past tribal history of occupancy in this area of the coast.

41-6 FOGR supports the expert recommendations for appropriate investigation, study, and incorporation into a district designation of the cultural resources on the property. Its potential value as a cultural and archeological resource will be lost if the present mitigations proposed by the applicant are implemented.

41-7 Pertinent to the inadequacy of the Cultural Resources methods and mitigations is the recent news that the adjacent parcel to the west of approximately 34 acres has entered into a sales contract with a buyer, namely the Bryce Jones Vineyards Company. The area of concern for the cultural resources of the immediate area extends out onto the 34 acres of this parcel. No record as yet of any archeological investigations has been submitted for this parcel and this might be important in the adoption of a district designation for the area. Additionally, this parcel has been available for an extended period of time on the vineyard land real estate market and represents an example of an off-site alternative to the

Letter 41 Cont'd

41-7 Cont'd project that would not require forestland conversion and thereby be less impacting. Due to the economic downturn an increasing number of vineyards and agriculturally developed land parcels are now available in the county that would be appropriate alternative sites for the applicant's project.

41-8 **The alternatives analysis of the DEIR should be completely re-evaluated** based on a comprehensive inventory of archaeological resources associated with the prehistoric village site, and full significance of a potential archaeological district designation.

Greenhouse Gas Analysis

41-9 FOGR is concerned that the greenhouse gas analysis in the DEIR is flawed due to its construction using an undocumented CALFIRE spreadsheet and the lack of a forest inventory on the site to enable entry of verifiable figures into that or other spreadsheet program. Added to these deficiencies are the preparer's illogical assumptions of projected rates of carbon sequestration of the project compared to sustainable forestry management on the same site. These are all well addressed in the April 10, 2011 letter submitted on behalf of FOGR by Registered Professional Forester Tom Gaman.

41-10 Using the submitted figures by the preparer it is clear that the stated goal of California to substantially reduce GHG emissions by 2020 will only be hindered by this project. If the off-site alternative of buying an existing vineyard or existing converted agricultural land is considered, the applicant could achieve their desired result (a vineyard) with significantly less environmental impact. Another alternative is the avoidance of forest conversion by just planting in the presently non-forested areas of the parcel.

41-11 In addition to the alternatives noted above and those in the Cultural Resources comments, the option for funding acquisition of the property from a non-profit, public, or private institutional is very likely due to its superior value as a forest preserve. With its high scenic, tourism, cultural, ecological, and recreational values and proximity to the heavily populated San Francisco Bay area, the property is a prime candidate for the alternative of establishment of a redwood forest preserve.

We look forward to response as to these concerns and their addition to the comment letters for the DEIR.

Sincerely,

Chris Poehlmann
Friends of the Gualala River

LETTER 41: CHRIS POEHLMANN – FRIENDS OF THE GUALALA RIVER.

Response to Comment 41-1

The comment is introductory and does not address the adequacy of the Partially Recirculated DEIR (RDEIR).

Response to Comment 41-2

Please see Responses to Comments 19-3 through 19-14.

Regarding the comment letters on the RDEIR submitted by others on behalf of FOGR, see responses to Letters 38, 39, 40, and 42.

Response to Comment 41-3

Please see responses to Letter 42 of this Final EIR, in particular Responses to Comments 42-3 and 42-8.

Response to Comment 41-4

The archaeological resources and accompanying analyses on the Preservation Ranch project site are not germane to the Fairfax Conversion archaeological resources analysis. These resources are not located proximate to the Fairfax Conversion project site. Similar to the Fairfax Conversion project, site-specific archaeological surveys conducted for the Preservation Ranch project site should result in the identification of significant sites and their subsequent avoidance.

Response to Comment 41-5

The commenter states that the letter of support from the Stewarts Point THPO indicates the importance of the area to the Tribe. The Fairfax Conversion cultural resources analyses acknowledge that this is the case, which is why the Tribe has been consulted and asked to participate since the beginning of the project. This is evidenced by the series of letters written to the tribe for the Timber Harvesting Plan and by tribal participation in the cultural resources investigations for the project.

However, it is also important to recognize that the letter of support specifically references concern for protecting the burial locations of Kashia ancestors. None of the cultural resources identified on the Fairfax Conversion property is known to contain human remains. Further, as all of the archaeological sites identified on the property have been excluded from development, the potential for disturbing human remains is extremely low.

The persistent statements that a named site is present on the property are not supported by documentary research or by consultation with the Kashia THPO. On the contrary, while there are several named village locations in the larger Beatty Ridge area, none are recorded as being on the Fairfax conversion property.

Response to Comment 41-6

Please see Responses to Comments 42-8 and 42-9.

Response to Comment 41-7

Delineating an archaeological district on the Fairfax Conversion property is an inappropriate measure. Because guidelines for delineating district boundaries specifically state that such boundaries should encompass ". . . the full extent of the significant resources and land area making up the district" any effort to create a district that does not include surrounding properties could not possibly meet this simple standard. Because there is no enforceable means of requiring cultural resources studies of properties outside the Fairfax conversion area, creation of an archaeological district is not appropriate or even feasible.

Regarding the commenter's off-site alternative comment, see Response to Comment 40-40.

Response to Comment 41-8

Please see Responses to Comments 41-7, 42-8 and 42-9.

Response to Comment 41-9

Regarding the commenter's concern that the GHG analysis was prepared using an undocumented CAL FIRE spreadsheet, see Response to Comment 39-3.

Regarding the commenter's concern about a lack of a forest inventory on the site to enable entry of verifiable figures into the spreadsheet, see Response to Comment 39-4.

Regarding the commenter's statement that there are illogical assumptions of projected rates of carbon sequestration in the GHG analysis, see Response to Comment 39-6.

Response to Comment 41-10

Please see Response to Comment 40-40.

Response to Comment 41-11

Please see Response to Comment 39-11.

UF UNIVERSITY of FLORIDA

Letter 42

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April 24, 2011

Allen Robertson
Deputy Director
California Department of Forestry and Fire Protection (CAL FIRE)
Sacramento, CA

Dear Mr. Robertson,

42-1

I have been sent a copy of the Partially Recirculated Draft Environmental Impact Report (RDEIR) (SCH# 2004082094) for the timber harvest on the Fairfax property located in Annapolis, California. Having reviewed this CAL FIRE RDEIR document, I find that the addition of documentary evidence of historic settlements noted by early anthropologists has been added, correcting a deficiency that I noted in my earlier review. This is welcomed, but it also carries with it the potent recognition that the Fairfax conversion (in this instance the timber harvest plan) is proposed to occur in a midst of an extremely sensitive Native American settlement area. You could not hope to find a more sensitive context for ground disturbing activities were you to search diligently for it on remaining forested California landscapes.

MINIMUM REQUIREMENTS FOR ADEQUATE ASSESSMENT AND MITIGATION

42-2

If we turn to the discussions of archaeological survey and mitigation in the RDEIR, what we find is that very little of substance has been added to the current RDEIR to change my earlier assessment of the inadequacy of archaeological assessment of heritage resources on the Fairfax property. It is useful to review my previous analysis of July 27, 2009, inter alia:

> **Archaeological Mitigation in the DEIR.**
> I present here only summary remarks and evaluations on the planned mitigations for cultural resources within the Fairfax Conversion. Let me start with what appears to be a fundamentally flawed methodology used in the assessment, something that then influences the proposed mitigation.
> Given the demonstrated importance of the Annapolis area, one might expect at a minimum something more than the assessment protocols that are presented in the DEIR. First, it is difficult to assess precisely what methods Mr. Neri applied to the first assessment process. We learn, for example, that he employed either 20 or 30 meter transects. Why such variation? Was there no consistency? If we examine the DEIR text more closely, we find that the initial survey was biased by his using

Letter 42 Cont'd

42-2 Cont'd

open exposures on trails and roads, as most of the terrain presented low visibility. These observations immediately point to fundamental problems—that Neri did not conduct a systematic scientific survey, but instead used open exposures to locate artifacts and other features of archaeological interest. No sub-surface inquiry informed the initial assessment, a perplexing omission in the context of a landscape with moderate to deep duff and dense grass cover in other areas. The problems presented by the incomplete and cursory Neri assessment was then compounded and amplified by the Origer and Associates survey, which evidently went no further than additional documentation of the "sites" identified by Neri. It is unclear why this additional inquiry was restricted in this manner, but the end result is that we know very little that is scientifically reliable about the distribution of archaeological resources on the Fairfax Conversion.

42-3

There are at times inherent difficulties with CRM survey methods. For example, the use of widely spaced sampling transects, e.g., 30 m or more, is inadequate for locating small settlements, lithic work stations, and other small activity zones. Handsman and Lamb (1995) have shown convincingly that the use of tightly space sampling transects, e.g. 10 m or less, ensure that sites will not be overlooked and consequently the history of an area not erased by inadequate sampling. What would constitute adequate sampling in this instance? Given the archaeological importance of the development area, a minimum sampling scheme should be 10 m staggered transects across the entire parcel, not just those zone now marked for development, to gain comprehensive knowledge. Second, the use of hoes to remove duff for surface inspection is not an adequate method in these circumstances in which land disturbance has occurred for nearly a century and a half. The assumption that surface indicators are sufficient may be appropriate in other routine cases, but not in a zone with such rich heritage resources. Rather, sub-surface sampling on a 10 m grid using a device such as a bucket auger, supplemented with shovel tests when sub-surface indication are found, is called for. Finally, these methods alone must be supplemented by remote sensing that is easily executed in the field. The use of a magnetometer would ensure that fire cracked rock, hearths, and other fire-altered earth and artifacts may be easily located.

42-4

What has transpired since to possibly modify this analysis? Let me take up this question serially, but first provide an overview of what I have considered in formulating an answer. First, I have been provided with and have reviewed the 2009 surveys--"*An Archaeological Survey Report for the Artesa/Fairfax Timber Harvesting*--held in confidential status, upon which the present DEIR draws; I have also reviewed other ancillary documents kindly made available by CAL FIRE. I find that they lack scientific rigor given the sensitivity of the region for Native American settlement and utilization. There are no assurances that the so-called 20-25 m zig zag pattern of survey was applied to the entire property. Even were this the case, such a surface examination does not satisfy the needs for fine grained analysis demanded by the distribution of sensitive and important cultural resources in this zone and immediately contiguous to the zone. As I have previously noted, independent survey as well as interviews with local residents have

Letter 42 Cont'd

42-4 Cont'd revealed a number of other sites either within or contiguous to the property. The elders of the Kashia Pomo have specifically asked that I keep this information confidential and my professional code of ethics requires that I respect that request.

METHODOLOGICAL BLUNDERS

I did not have access to documents about the November 2010 event, using a backhoe in heavy brush to search for possible heritage sites. This is new information provided in the RDEIR, to wit:

> "The requested additional survey was conducted on November 10th and 11th, 2010 and focused upon a 5-acre block in the northern portion of the project area and a 15-acre block in the southern portion of the project area. To intensively survey these two dense brush locations, Origer & Associates initially proposed the use of a backhoe to flatten brush and create corridors in which the field crew could closely inspect the exposed the ground surface. After a few initial forays into the dense brush with the backhoe, it quickly became apparent that this method could not be employed without creating ground disturbance that would require a Native American monitor to be present per CAL FIRE directives. Consequently no further use of the backhoe was made during the remainder of the survey effort."

42-5

From a profession perspective, this is a bizarre incident and one that undermines the credibility of those engaged in the assessment process for this property. It is an embarrassment because it constitutes such a significant methodological blunder; it was also witnessed by local people who expressed their alarm over such an extraordinary "survey method".

The November event is also a poignant commentary on how misguided this assessment program has been from the beginning, when the most thorough and detailed survey possible should have been employed—not some run of the mill survey that is commonly applied to properties where few historical or archaeological resources may be expected. The ad hoc nature of such surveys is captured by the language used in the RDEIR, viz: "In these areas where the presence of very dense vegetation made conducting an intensive archaeological survey impractical, a mixed strategy survey was conducted by making forays into the brush, where possible, to examine the ground surface." The absence of precision and the absence of a systematic survey strategy continue as major issues.

42-6

I have previously recommended—given the high sensitivity and the historical significance of archaeological sites in the area—that a very thorough survey program based on a 10 m staggered grid be employed, along with subsurface sampling and remote sensing (see above quote for my 2009 comments). This would be a responsible program to follow and until such a program is implemented, the methodologically questionable surveys conducted on the property thus far must be considered altogether inadequate. It is puzzling why there should be resistance to a rigorous scientifically reliable assessment program, when only such a program can satisfy major questions about a property located

Letter 42
Cont'd

42-6 Cont'd

in a highly sensitive cultural resource zone. It is mystifying why DEIRs continue to be prepared on this property when CEQA provides specific mitigation criteria at Pub. Res. Code Section 21083.2(c)-(f) for "unique" archaeological resources (defined at 21083.2(g) as "an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: (1) contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; (2) Has a special and particular quality such as oldest of its type or best available example of its type." Of particular telling interest is that the RDEIR use the phrase "somewhat unique" to describe the Annapolis "District" on p. 3.5-3.9. The implication for CEQA is, pointedly, an unmitigated significant impact requiring a finding of overriding consideration.

42-7

The property obviously meets these criteria and thus it is in the interest of CAL FIRE, the Native American community, the people of California, and concerned researchers for CAL FIRE to withhold further consideration of a timber harvest plan and any ancillary vineyard development.

TO DESIGNATE AN ARCHAEOLOGICAL DISTRICT OR NOT

The convoluted reasoning of the RDEIR challenges both lay and professional understanding and unnecessarily mystifies a compelling justification for an archaeological district. Readers are led to believe that the RDEIR supports an archaeological district when they read, "The distribution of known and reported archaeological sites in the Annapolis area, outside the Fairfax Conversion property,

42-8

suggests that an appropriate boundary for an 'Annapolis Archaeological District' would include the land above the 600-foot contour interval on both Beatty Ridge and Brushy Ridge." This is an unambiguous, clear-cut admission that an archaeological district is appropriate and could be easily designated. Yet, many contradictions and qualifications enter the narrative, for example: "While the creation of an 'Annapolis Archaeological District' could help to highlight the research potential of the archaeological resources in the area, state and federal laws call for avoidance of all known cultural resources to the extent feasible." This is a misleading assertion, for it ignores the obvious potential that these admittedly important sites have as future knowledge sources and as a culture "bank" for the Kashia Pomo.

The RDEIR further exacerbates the confusion it creates by stating that, "At present there is a lack of sufficient data to link the various prehistoric sites temporally or thematically as a District," a blatant contradiction to the summary conclusion quoted in the previous

42-9

paragraph. The RDEIR also states, "Therefore, creation of an archaeological district would not afford the sites greater protection than they will receive as individual recorded archaeological sites that have been determined to be potentially significant under one or more of the relevant criteria for significant archaeological and/or historic-era sites" (RDEIR 3.5-31). You simply cannot have it both ways. It is, plainly said, nonsense to focus only on the Fairfax Conversion in such a conclusion, for an archaeological district for the Fairfax property is but a first step to a larger archaeological district that should and would include more than the Fairfax property. The property and the context—as the

Letter 42
Cont'd

42-9 Cont'd

RDEIR repeatedly admits—is rich and deserving of protection under the aegis of an archaeological district that includes the Fairfax property and also the surrounding sites, under other regulatory procedures, through time. These heritage resources must be treated holistically, not in a piecemeal manner.

42-10

The contradictory summaries and conclusion noted in the paragraphs above are highlighted by the following RDEIR observation: "The terrain in the vicinity of Annapolis is generally much gentler and flatter than other inland areas associated with the North Coast Range, making the region somewhat unique and likely more attractive to prehistoric habitation. As such, the location and density of archaeological sites within this particular area may reflect patterns outside of the typical Northern Coastal habitation model…" (RDEIR 3.5-3). This type of confused and circular reasoning insults the Kashia Pomo, it violates principles of heritage conservation held in county, state, and federal law, and it hides the issues from public understanding. Moreover, it is far from the regulatory standard of "good faith, reasoned analysis" that avoids "…statements unsupported by factual information…" for response to comments (CEQA Guidelines 15088 (b).

42-11

It is time that CAL FIRE stop equivocating on this important matter and either deny the Artesa application outright on heritage grounds or insist on implementation of rigorous surface and subsurface surveys that have been previously recommended but ignored.

Should you have any questions, I am available for your consultation.

Sincerely,

Peter Schmidt

Peter R. Schmidt
Professor of Anthropology and Archaeology
University of Florida

LETTER 42: PETER SCHMIDT – PROFESSOR OF ANTHROPOLOGY AND ARCHAEOLOGY

Response to Comment 42-1

The commenter indicates that the Fairfax Conversion property is within an area that would be difficult to exceed in terms of archaeological sensitivity. As stated in the RDEIR (cf, 3.5-22) there are three areas within the Kashia territory alone that were identified by Samuel Barrett (1908) as having higher density of villages compared to the Annapolis vicinity.

Response to Comment 42-2

The commenter indicates that the methods employed in the original survey of the property by Neri were inadequate. CAL FIRE concurred with the assessment of Neri's original work and required a complete resurvey of the timber conversion area in 2009. See also Response to Comment 21-8 for a response to the commenter's original concern quoted in this comment.

The commenter further indicates that he is confused as to why additional work completed by Tom Origer & Associates was limited to locations already examined by Neri. This work was not survey, but was evaluation of known archaeological resources to determine if they meet criteria for inclusion on the California Register of Historical Resources; it was by its nature restricted to areas already examined.

Response to Comment 42-3

The commenter indicates that smaller survey transects, shovel probes, and magnetometer survey should be employed to adequately identify archaeological resources on the Fairfax Conversion property. The contention is that the survey methods employed would not allow for the identification of resources that cover relatively small areas. This is not accurate. Isolated artifacts and resources as small as five scattered chert flakes were identified during the work that has been completed, and the field coverage within the Fairfax Conversion project area was consistent with that commonly employed in California archaeological land survey as described by White and King in their 2007 publication The Archaeological Survey Manual published by Left Coast Press, Walnut Creek, California. White and King (2007:103) go on to describe that subsurface conditions can be assessed by taking advantage of all soil exposures including stream banks, bluffs, and road cuts. Also, trowels, hoes and shovels can be used to clear vegetation and overburden (White and King 2007:104). Shovel test pits also provide a means of examining subsurface soils, and these are particularly useful in areas with depositional soils (e.g., valley bottoms), where forest duff is thick, or where soils have not been previously disturbed. The Fairfax Conversion project area is marked by soils on ridges (erosion landforms - not valley bottoms), forest land duff, and soils previously disturbed by logging and farming. The intensity of coverage and the effort to examine surface and subsurface soils met local standards. To amplify, Thomas Neumann and Robert Sanford in their 2001 book Practicing Archaeology clearly point out on page 117 that ground surface survey (reconnaissance) as employed on this project is commonly used in the region west of the Rockies, whereas, in most states east of the Rockies (e.g., Florida) shovel testing is done. Dr. Schmidt's espousal of shovel test exploration may be a function of how archaeology is practiced in various regions of this country.

See also Response to Comment 21-8.

Response to Comment 42-4

This comment is generally a restatement of comment 42-3. The comment does, however, add statements regarding additional sites reportedly known by local residents and by the Kashia people. Requests for any information available regarding archaeological resource locations have been made to the commenter, local residents, and to the Kashia Tribe. As of the date of this writing, these parties have not responded to such information requests, which would allow the project proponent to protect these alleged locations. All currently identified resource locations on the project site are being protected.

Response to Comment 42-5

The commenter refers here to the use of a backhoe in November 2010 to clear pathways through portions of the project area marked by extremely dense vegetation (e.g., huckleberries) where intensive field inspection was not previously possible. In consultation with the CAL FIRE archaeologist and the Kashia Tribal Administrator (who consulted with the Tribe's former Tribal Historic Preservation Officer) a plan was developed to create pathways through dense brush so that the project area soils could be inspected. In the event that the use of a backhoe created disturbances to the soil, the effort was to be abandoned so that no archaeological sites would be damaged. The backhoe did disturb the soil surface, the effort was immediately terminated, and those portions of the property marked by impenetrable brush were excluded from development. This was not a "bizarre incident" nor was it an "embarrassment". It was a considered approach to a specific situation, developed in consultation with the Native American community. Archaeologists use tools appropriate to the task at hand; sometimes small brushes and dental picks and sometimes bulldozers and backhoes.

Response to Comment 42-6

Please see Response to Comment 42-3.

Response to Comment 42-7

Please see Responses to Comments 38-29 and 38-31.

Response to Comment 42-8

The commenter recommends creation of an Annapolis archaeological district. While there are data indicating that there are additional archaeological sites in the Annapolis area, the creation of a district requires identifying the entire geographic extent of the district. In addition, definition of a district requires a temporal and thematic association, and identification all of the contributing resources. The arbitrary grouping of a suite of sites because of geographic proximity is not an appropriate method for establishing a district, particularly in an area known to be a boundary area between two cultural groups.

See also Response to Comment 13-13.

Response to Comment 42-9

The commenter argues against the treatment of archaeological resources in a 'piecemeal fashion'; however, the creation of an Annapolis archaeological district would lend itself to that very thing. To designate a district of sites on the Fairfax Conversion property, even assuming that additional sites in the Annapolis area would later be incorporated, would functionally isolate these archaeological resources from sites in the greater Kashia territory that were part of the same cultural pattern.

Response to Comment 42-10

The commenter suggests that the RDEIR is contradictory, because while it acknowledges that the environmental and historical factors in the Annapolis area would make it a desirable area for habitation, it does not assume that the locale contains archaeological sites that are linked by theme, by contemporaneity, and that they are disassociated from other archaeological resources within the same culture area that are geographically separate. The commenter further asserts that by failing to make this assumption the RDEIR insults the Kashia people because it recognizes that their culture and historical settlement and lifeways are more complex than can be addressed by a handful of sites on a single property.

The RDEIR is not contradictory, but rather acknowledges that the Kashia people had a multi-faceted culture that utilized multiple ecological zones across their entire territory, and that treating sites in a single zone, in isolation from the remainder of Kashia lands, would result in a one-dimensional perspective on a multi-dimensional culture.

Response to Comment 42-11

The commenter suggests denial of the project and revisits the subject of additional survey. Because the property has been surveyed adequately, all historical resources identified on the property that have the potential to meet California Register criteria have been excluded from development, and adequate mitigation measures are provided for treatment of resources discovered during development (if any).

The request that the Artesa application be denied is a consideration for CAL FIRE, acting as lead agency. This comment does not address the adequacy of the EIR.

RECEIVED
CDF
APR 25 REC'D
RESOURCE MANAGEMENT
ENVIRONMENTAL PROTECTION

Apr-21, 2011

Letter 43

I respectfully submit this letter as my comment on the Fairfax/Artesa conversion and the THP that runs with it.

Please assume it to be a comment on both the cultural resource of water and the cumulative impact that these projects have on climate change in our watershed.

Please place poem in the conversion file and in the THP 1-09-058 SON file.

Sincerely —
Randall N. Sinclair
36600 Annapolis Rd
Annapolis, Ca.
95412

43-1

Letter 43
Cont'd

43-1
Cont'd

USQUEBAUGH
(Water of Life)

That first celadon dive
Into a summer stream,
Surfacing through effervescence,
Nose at water level;
Breathe deep
And willow catkins
Flood our senses!

Granite with overtones
Of watercress,
Slightly acidic
With Redwood bones.
Thimbleberry undercurrent
Rising with accents
Of Alder.

These inebriant waters
That we should extole
With more eloquence
Than we pronounce
Upon our wines;
Have been thoughtlessly fouled
By our affluence.

We no longer treasure
These waters
That rise up saltless
From the sea
And fall
To be filtered
Through ages of mycelium,
Surfacing in springs
That run in ribbons
To the warm estuaries
Where life began.

LETTER 43: RANDALL SINCLAIR – RESIDENT

Response to Comment 43-1

Prior to the provided poem, the commenter generally refers to cultural resources and climate change. Cultural resources are addressed in Chapter 3.5, *Cultural Resources*, of the DEIR and Partially Recirculated DEIR (RDEIR) and climate change is addressed in Chapter 4, *Cumulative Impacts*, of the DEIR and RDEIR. The poem is part of CAL FIRE's file for both the Fairfax Conversion THP and EIR.

Kashia Round House
Founded in 1916

Letter 44

Kashia Band of Pomo Indians of the Stewarts Point Rancheria

April 25, 2011

Mr. Peter Baye
P.O. Box 65
Annapolis, CA 95412

Re: Artesa EIR

Dear Mr.Baye:

44-1 I am writing as the Tribal Historic Preservation Officer (THPO) for the Kashia Band of Pomo Indians of the Stewarts Point Rancheria to express my support for the Friends of the Gualala River concerning the proposed Artesa project.
As Native people we have a responsibility to our ancestors to ensure that our ancestors remain safe in their resting place. It is important to the Kashia Band of Pomo Indians and their ancestors that they are able to remain undisturbed in their Native state.

Respectfully,

(original signature on hard copy)

Emilio Valencia
Tribal Historic Preservation Officer
Kashia Band of Pomo Indians

LETTER 44: EMILIO VALENCIA – KASHIA BAND OF POMO INDIANS

Response to Comment 44-1

The Fairfax Conversion cultural resources analyses acknowledge the importance of the area for the Tribe, which is why the Tribe has been consulted and asked to participate since the beginning of the project. This is evidenced by the series of letters written to the tribe for the Timber Harvest Plan and by tribal participation in the cultural resources investigations for the project.

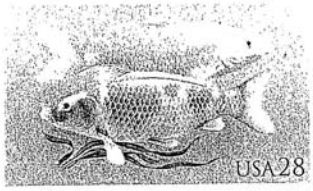
It is also important to recognize that none of the cultural resources identified on the Fairfax Conversion property is known to contain human remains. Further, as all of the archaeological sites identified on the property have been excluded from development, the potential for disturbing human remains is extremely low. The DEIR includes Mitigation Measure 3.5-2(b), as slightly updated in the Partially Recirculated DEIR, in order to ensure that no adverse impacts occur to human remains should they be detected on-site during construction.

3.5-2(b) *In the event that human remains are found during vineyard development activities, the steps required by 14 CCR Section 15064.5(e) of the CEQA Guidelines shall be carried out. All excavation or disturbance of the location and any nearby area reasonably suspected to overlie adjacent human remains shall cease. The Sonoma County Coroner shall be immediately contacted. If the coroner determines the remains to be Native American applicable law and regulation require the coroner to contact the Native American Heritage Commission within 24 hours. Subsequently the Native American Heritage Commission is mandated to identify the person or persons it believes to be the most likely descended from the deceased Native American. The most likely descendant may then make recommendations to the landowner or the person responsible for the excavation work, regarding the treatment of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. A note requiring compliance with this measure shall be indicated on construction drawings and in construction contracts for the review and approval of the County Permit & Resource Management Department prior to issuance of grading permits.*

Letter 45

UNIT, FG, WQ, ER, LM, RPF

Betty J. Le Donne
7695 Derby Ln. Unit A
Cotati, CA 94931-9703



CALIFORNIA
Dept. of Forestry
and Fire protection
Attn: Leslie Markham
135 Ridgeway Ave.
Santa Rosa CA 95401

RECEIVED
OCT 21 2010
COAST AREA OFFICE
RESOURCE MANAGEMENT

oct 16-
2010

Dear Leslie Markham,

45-1 I am writing to oppose the Artesa "Faifax" vineyard, the conversion of forest to vineyard. This is plan # 1-09-058SON. I am hoping that there will never again be a conversion of forest to anything else, ever again! I am an environmentalist and part Native American.

Thankyou, Betty J Le Donne

Betty J. LeDonne

LETTER 45: BETTY LEDONNE

Response to Comment 45-1

The comment expresses an opinion regarding the project and has been forwarded to CAL FIRE for consideration.