

GRASSETTI ENVIRONMENTAL CONSULTING

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

July 28, 2009

SUBJECT: FAIRFAX CONVERSION PROJECT DRAFT ENVIRONMENTAL
IMPACT REPORT COMMENTS

Dear Mr. Robertson;

Grassetti Environmental Consulting (GEC) has been retained by the Friends of the Gualala River (FOGR) to review and comment on the Draft Environmental Impact Report (DEIR) for the Fairfax Conversion Project to assure that that document fully complies with the California Environmental Quality Act (CEQA) and its implementing Guidelines. This review was conducted by Richard Grassetti, the firm's principal, and is based on my 25 years of experience in CEQA document preparation, review, and training of CEQA professionals. In preparing these scoping comments, I reviewed the 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 independent expert technical analyses of hydrology, fisheries, and cultural resources prepared for FOGR.

As discussed in greater detail in the table below, our review indicates that, in a number of resource areas, the DEIR is overly optimistic in its conclusions of impact severity and effectiveness of mitigation measures. The cumulative impacts assessment is similarly flawed. In addition, the cultural resources and hydrology assessments appears to be incomplete to such an extent that revision and recirculation of the analysis is required for CEQA compliance. Finally, the alternatives assessment is artificially limited in scope by an impermissibly narrow project purpose, and fails to adequately consider potential off-site alternatives and a further reduced project. It should be noted that the alternatives cannot be fully developed until the site's cultural resources are accurately mapped and analyzed for significance.

In summary, it is my professional opinion that, given the extent of the flaws detailed below, this DEIR 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;

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reassessment of biological resources, cultural 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 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

Attachments:
Grassetti Qualifications
Holman Letter and Resume

TABLE OF SPECIFIC COMMENTS

Page	Paragraph	Comment
2-3	Fig 2-1	<p>Figure is unclear as to the distinction between “Project Boundary” and “Project Area”. Is the “Project Area” actually just the area covered by the TCP? Or is it the area to be planted in vineyards?</p> <p>The figure seems to be saying that the project is limited to the area proposed for timberland conversion (and therefore requiring the CDF TCP). Timberland conversion is only a portion of the project, which is the development of a vineyard and associated facilities. This brings up the larger issue of whether CDF is the appropriate Lead Agency for the project. If the parcels are, for example, proposed to be consolidated into a single parcel, then Sonoma County approval would be required and the County would be the appropriate CEQA Lead Agency.</p>
2-6, 7	Project Objectives	<p>The objective of “To take advantage of the site’s unique topography and microclimate to produce premium quality grapes for Artesa’s ‘Sonoma Coast Estate Chardonnay and Pinot Noir’ wine program” is impermissibly narrow under CEQA because it eliminates realistic consideration of alternatives, particularly off-site alternatives. It should be deleted and the range of feasible alternatives should be reevaluated.</p>
2-9	First full (un-numbered) para.	<p>This paragraph states that “The applicant has stated that once the vines are established the vineyard would be primarily dry farmed...” Will this be made a condition of approval of the TCP? If not, how will it be enforced? If it is not enforceable, the EIR should not assume it will occur and the EIR should evaluate potential impacts of continued diversion/pumping of water.</p>
2-9-15	Figures 2-6 through 2-11	<p>These figures are all hard to read and need additional legends/explanations as to what the lines and symbols mean. Do they show grading? Will the entire site be graded? What structures and other facilities will be built in the 1-acre corporation yard?</p>
2-17	Timber Harvest	<p>What’s the total volume of timber to be removed?</p> <p>Do the WLPZ buffer zones comply with County buffer</p>

		zones as specified in Section 26-10-020(c) of the County Zoning Ordinance? If not, a Conditional Use Permit would be required by the County, and the prospect of the County being the appropriate Lead Agency should be re-evaluated. In addition, will the proposed temporary or permanent roads require an encroachment permit from the County to connect to Annapolis Road?
2-19	General	What's the total amount of grading proposed for the site? Will it be balanced on the site?
2-20	Fig. 2-12	What's a "comment point"? What are the "operations" envisioned in this figure? Where are the vineyards proposed? This is a conversion map; that's not the whole of the CEQA project.
2-23	First para	Will nighttime fungicide application require lighting? If so, this needs to be added to the visual impacts assessment.
2-24	First full para.	This para. States that 'according to the applicant, irrigation runoff would not occur...'. Has this been independently verified? If not, what conditions are proposed to assure that this will be the case? Will residual storage of water in the pond result in mosquito breeding?
2-25	Harvest Operations	The noise impacts analysis assumes that harvesting would be by hand and not mechanically. Yes this portion of the project description states that mechanical harvesting would be permitted and may occur. This could result in significant noise impacts not addressed in the EIR. Please revise the noise impacts analysis accordingly.
2-26	Project Entitlements	Will County design review (for structures) be required? Will encroachment permit (for roadway connections) be required? Will a use permit be required? Will lot line adjustment or parcel consolidation be required?
3.2-1	Introduction	Same comment as above re possible County discretionary entitlements.
3.2-4	Last line	This states that the minimum parcel size for RRD designation is 640 acres. Given that the project parcels are far smaller than this, will the project include lot consolidation? Also, the RRD-40 zoning does not comply with the 640-acre General Plan designation requirement. Please discuss how this inconsistency is addressed in the proposed project.

3.2-19 through 21	Impact 3.2-1	<p>The County’s Right to Farm ordinance has no bearing on physical impacts to the environment, which is CEQA’s mandated focus, including impacts to adjacent land uses from proposed intensified agricultural activities on the site. The following conclusion that the project would have no land use impacts because it is consistent with zoning is entirely unsupported by fact and fails to meet CEQA analysis requirements. Please revise this discussion focus on physical impacts, not regulatory compliance, as required by CEQA.</p>
3.2-22/23	Consistency with General Plan	<p>See previous comments – the project doesn’t seem to comply with the GP’s 640-acre minimum parcel size. Please note that when zoning and general plan designations are inconsistent, the general plan designation rules.</p>
3.3-9	2 nd para	<p>The last sentence defines a significant impact as an action that would “block implementation of an ARB established regulation to reduce GHG emissions.” This criteria of significance is inappropriate and unsupported in a CEQA context because no ARB regulations exist yet the cumulative GHG impact continues to worsen. Further, it is highly unlikely (or impossible) that any single project would “block” implementation of such a regulation if one did exist. Numerous cities and counties in California have utilized realistic standards of significance in their CEQA documents. Some of these are posted on the Attorney General’s website : http://ag.ca.gov/globalwarming/ceqa.php.</p> <p>In addition, the Office of Planning and Research has released the following draft CEQA Guidelines for GHG assessment: <i>15064.4. Determining the Significance of Impacts from Greenhouse Gas Emissions</i> <i>(a) 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 on available information, 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:</i> <i>(1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or</i></p>

		<p><i>methodology to use. The lead agency has discretion to select the model 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; or</i></p> <p><i>(2) Rely on a qualitative analysis or performance based standards.</i></p> <p><i>(b) A lead agency may consider the following when assessing the significance of impacts from greenhouse gas emissions on the environment:</i></p> <p><i>(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;</i></p> <p><i>(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.</i></p> <p><i>(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency.</i></p> <p>This EIR’s approach of stating that the impacts would not be significant because they wouldn’t block a regulation that hasn’t been established is impermissible under CEQA case law. For example, in <i>Berkeley Keep Jets Over the Bay v. Board of Port Commissioners</i> (2001), the court ruled that:</p> <p><i>The fact that a single methodology does not currently exist that would provide the Port with a precise, or “universally accepted,” quantification of the human health risk from TAC exposure does not excuse the preparation of any health risk assessment-it requires the Port to do the necessary work to educate itself about the different methodologies that are available.</i></p> <p>In this case, the EIR preparers failed to look at the readily available methodologies and significance criteria that actually identified impacts and determined significance of projects’ contributions to GHGs/climate change. Therefore this EIR’s “analysis” that fails to analyze the significance of this project’s substantial increase of GHG’s from the site is completely inadequate.</p>
Section 3.4		As described in detail in comments submitted under separate cover by Dr. Peter Baye, the project has the

		<p>potential for causing the following impacts that have not been fully addressed in the EIR:</p> <ul style="list-style-type: none">• The permanent pond reservoir would add to the cumulative facilitation of non-native predator invasion (bullfrog) of Gualala River• The project could result in indirect and cumulative impacts of fungicide, herbicide, pesticide transport and fate on native amphibians, fish, and prey base (aquatic invertebrates). The cumulative impact of the project's contribution to the pesticide load associated with spread of vineyards in the Wheatfield Fork watershed also needs to be assessed.• The project's potentially significant cumulative impacts due to project, including winter/spring-season herbicide transport, increased bullfrog invasion and predation pressure due to permanent irrigation pond habitat, increased peak flow, and groundwater exploitation (reduction in baseflow) during critical drought years (when reservoir supplies fail) on Patchett Creek aquatic and amphibian species of concern (endemic Gualala Roach, western pond turtle, foothill yellow-legged frog) have not been adequately assessed.• The size of the Annapolis manzanita and thin-leaved horkelia mitigation reserves does not provide for population age-structure or recruitment and turnover over time; they are botanical gardens rather than biological reserves. The proposed mitigation will provide only short-term and nominal conservation of these special-status species. Therefore the project's impacts to these species should be considered significant.• Plant surveys provide no information on distribution, frequency or abundance, and do not distinguish between isolated occurrences or patterns of locally elevated biodiversity ("hot spots"). Surveys report Phantom orchid, which is associated with mature forest communities and is rare south of Humboldt County. This is a significant occurrence, particularly if it is a viable population or associated
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		<p>with concentrations of other uncommon or rare plants and fungi.</p> <ul style="list-style-type: none"> • The DEIR narrowly assesses “wildlife corridors” while ignoring the larger-scale and more significant impact of forest habitat fragmentation due to existing, proposed vineyards, including the project and Preservation Ranch. Please reassess these cumulative impacts. • The potentially significant impact hazard to migratory birds, raptors, owls, of bird netting over ripening grapes has not been addressed or mitigated. • The DEIR reduces impacts to narrow scope of “take” of individual Northern Spotted Owls (short-term timber harvest impact analysis), and fails to address potentially significant long-term, indirect and cumulative impacts of landscape-level changes that facilitate invasion by non-native predator and competitor, barred owl, which has increased frequency in Annapolis. Analysis is flawed because it ignores long-term habitat suitability and maturation compared with conversion. Analysis wrongly assumes that NSO do not mate or nest in rural residential forested parcels.
3.4-146	Last paragraph	<p>This paragraph states that the project would “only reduce streamflows during the winter when reduced flows would be negligible.” However, the EIR places no operating limits on the pond/storage system. What’s to prevent the project from diverting fall runoff? If there are no restrictions on this, then the EIR must assess the impacts of such diversions or include mitigations establishing such restrictions. Further, no analysis has been done regarding cumulative changes in runoff from all of the existing, approved, or planned vineyard conversions in the Gualala River watershed. Please add that analysis to this section as well as the Hydrology section.</p>
3.4	Fisheries	<p>As detailed in the Patrick Higgins letter submitted under separate cover, numerous studies over the last decade of northern California logging impacts (Ligon et al. 1999, Dunne et al. 2001, Collison et al. 2003) point out that on-site mitigation cannot prevent downstream damage when too great a watershed area is disturbed in too short a period, which is</p>

		<p>the case with the Gualala River and Patchett Creek watershed in which the project is taking place. While the DEIR presents alarming statistics on land use that indicate extremely rapid and extensive disturbance and development (i.e 28% timber harvest in 10 years, > 6 miles of road/square mile), the cumulative effects significance is never discussed and instead old logging activities are blamed for the current aquatic conditions. Evidence presented regarding Patchett Creek indicates advanced cumulative effects that the project will most certainly exacerbate.</p> <p>In some cases the actual effects of the project are misrepresented, such as the claim that installation of tile drains and storage of runoff in a 73 acre foot reservoir will not alter groundwater recharge or base flow in Patchett Creek. Similarly, the likelihood that invasive and voracious bullfrogs will colonize their pond and likely extirpate native yellow-legged frogs is also overlooked. The DEIR admits that steelhead use lower Patchett Creek in reaches that have perennial flow, but then stakes out the absurd position that because they cannot access upper reaches due to natural barriers that there will be no impact from the project on the species. Despite five years since the first draft TCP, critical data gaps remain regarding use of Patchett Creek by steelhead, flow levels in the creek, groundwater levels at the project site, connection of groundwater and surface water and whether previous development and vineyard conversions have already depleted flows. The EIR fisheries analysis should be revised to remedy these deficiencies, as detailed in the Higgins letter.</p>
3.5-7	General	<p>As detailed in the attached letter from Holman & Associates, there are major deficiencies in the archaeological resources assessment. These include:</p> <ul style="list-style-type: none"> • Problems with adequacy/completeness of the Neri assessment, including inadequate survey methodology • Failure of the Origer study to review the entire property • Changes in field conditions in the past 9 years not accounted for in limited Origer work scope • Failure to consider the possibility of the cultural

		<p>resources on the site constituting a historic district</p> <p>Please refer to the attached Holman & Associates letter for additional detail on these issues.</p>
3.5-7/8	Artesa Site-01	<p>Has the full extent of site 1 been determined? What's the buffer from the confirmed edges of this village site to the proposed vineyards? Given the differences between Neri's and Origer's finds on some of the other sites, we suggest that Origer re-evaluate Neri's work on this site.</p>
3.5-9-25	Origer Investigations	<p>Given the differences between Neri's and Origer's finds on some of the other sites, we suggest that Origer or another archaeologist re-evaluate the entire site's cultural resources.</p> <p>Given the number of sensitive sites eligible for the NRHP already found at the site, please include consideration of the possibility that this property may constitute a Historic District.</p> <p>Should additional NRHP-eligible sites be discovered, or if the site is found to include a Historic District, additional mitigation should be developed, as well as additional or revised alternatives that avoid the sensitive cultural resources.</p>
3.5-22	Impact 3.5-2	<p>The criteria of significance discussed in the impacts assessment do not correlate to those listed in the "Standards of Significance" section of the EIR. In addition, Mitigation Measure 3.5-3(a) seems to present yet another set of significance criteria. To which of the listed standards are the impacts discussion referring? Why does the mitigation measure have different criteria from the impacts assessment?</p> <p>Additionally, Mitigation Measure 3.5-3(a) doesn't seem feasible. How are vineyard workers (who often are temporary, migrant, and non-English speaking) going to be adequately trained to recognize and prevent damage to cultural resources. If a mitigation measure isn't feasible, the impact remains significant.</p>
3.7-2	Watercourses	<p>The Cultural Resources section identifies an on-site seep or spring at the head of one of the channels on the site. This seep feeds some wetlands plants. Please add this to the</p>

		hydrology section and discuss how the project's diversions of surface waters and pumping of ground waters might affect its flows and the plants/animals that use it.
3.7-22/23	Tables 3.7-4/5/6	Existing peak 2-year flows from Nodes 1 and 2 vary widely between tables 3.7-4/5 and Table 3.7-6. Please clarify the differences and the reasons for them.
3.7	General	This section is generally poorly organized and difficult to make head or tail out of. For example, p. 3.7-28, which is in the Setting section, contains an impacts analysis of late summer rainfall capture.
3.7-47	Average Annual Rainfall	The average annual rainfall for Annapolis relies on 1931-1970 data and does not reflect the most relevant rainfall period of record, namely the period from 1970 to the present, which includes two of the greatest drought periods on record. Given the current period of climactic instability, please reassess the water resources/hydrology impacts in light of the most recent rainfall data and trends.
3.7-61 through 3.7-77		This impact assessment appears to be a data dump of information, much of which is unrelated to the impact in questions. For example, Protection of the Natural Habitat on p. 3.7-64 relates not to sedimentation but to Impact 3.7-7.
3.7-85	Domestic Well	<p>Please provide data/calculations supporting the conclusion that "water use would...be unlikely to exceed 20 gallons per day." During harvest periods with up to 72 workers on the site, this would mean that each worker would use less than .3 gallons of water/day.</p> <p>Why would a 1,000-5,000 gallon tank be installed if daily water use would generally not exceed 20 gallons? This would be a 50-250-day water supply.</p>
Section 3.7	Water supply/hydrologic balance	As detailed in the Kamman Hydrology & Engineering letter, the DEIR and technical studies fail to satisfy the hydrogeologic analysis and report requirements established by the State and County for such assessments. For example, reports do not document attempts to learn of well failures on unsuccessful attempt so develop water in the impact area. It does not appear that local property owners of well drillers were contacted for groundwater information. A water balance is not provided pursuant to standard practice. The reports do not discuss current or

		<p>projected (cumulative) quantities of groundwater pumped. No aquifer storage capacity is calculated, nor is there any discussion of aquifer tests. These documents fail to evaluate if project well pumping will interfere with surrounding wells or adversely deplete existing groundwater resources. In short, Kamman’s review indicates that potential impacts from groundwater pumping and altered hydrology have not been evaluated in accordance with State laws, County policy or to the standards of care that govern the practice of geology and hydrogeology in State of California.</p>
3.7	Groundwater overdraft	<p>The DEIR is inconsistent in the stated uses of water that will be pumped from the proposed project well. On page 3.7-16 it is stated that the water will be used for drinking. On another page, the well water is stipulated for “washing and other incidental uses (pg. 3.7-48). As indicated above, the DEIR does not present an acceptable analysis of potential impacts from groundwater pumping on local groundwater supplies. Groundwater overdraft is a real, if not existing, concern in the Ohlson Ranch Formation Highlands Groundwater Basin. The geologic and land-use setting of the Ohlson Ranch Fm. basin is strikingly similar to coastal Wilson Grove Formation further south along the Sonoma Coast that is experiencing severe groundwater overdraft that has occurred due to residential and vineyard growth. The Annapolis area and underlying aquifer system are currently undergoing very similar growth and water demands that have led to the severe groundwater overdraft now impacting the Joy Road Study Area. Please re-evaluate the project’s impacts to groundwater in this context.</p>
3.7-86	First para.	<p>This paragraph states that, “Well water could conceivably be used to fill the proposed 73-ac-ft reservoir.” Is this proposed as part of the project? If so, please evaluate the impacts on local groundwater resources. If not, please include a condition or mitigation prohibiting such use.</p>
3.7	Sediment transport	<p>The DEIR fails to complete a sediment impact assessment or water budget assessment in project subareas that drain to Grasshopper or Little Creek. The DEIR authors assume that impacts in these areas, if any, would be insignificant. Failure to complete the analysis clearly indicates that</p>

		<p>potential impacts have not been evaluated and the DEIR is incomplete. It is important to also note that one of these areas will be where the “corporation yard” and groundwater well will be constructed – the details of which are both very sparse within the DEIR.</p>
3.7	<p>County Drainage and Stormwater Management Ordinance compliance</p>	<p>As stated in the DEIR, Chapter 11 of the Sonoma County Code regulates all acts that obstruct or diminish free flow of floodwaters in channels or waterways within the county (Ordinance No. 4803 § 1 and 1994: Ord. No. 1108 § 15). A permit for any of the following acts is required: (a) Impair or impede or obstruct the natural flow of storm waters or other water running in a defined channel, natural or man-made, or cause or permit the obstruction of any such channel.</p> <p>The DEIR is inaccurate in the assessment that the project will not impact Patchett Creek as the DEIR clearly states that the project will, “eliminate runoff to a 1,200-ft reach of Class III channel south of the proposed reservoir site” and “the reservoir collection system would also largely eliminate storm runoff delivered to two large gullies.” (pg. 3.4-142)</p>
3.7	<p>Peak Flows/Channel Erosion</p>	<p>As detailed in the Kamman letter, it is clear from this wide range of reported peak flow increases, the project proponents don’t really know what to expect in terms of peak flow increases. Regardless, the conclusion that project induced increases in peak flow on the order of 10-percent will not pose a real and potential threat of increased erosion in receiving channels fails to fulfill the CEQA requirement of conservative assessment of impacts (reasonable worst case). Given the wide range of estimated potential peak flow increases and inherent uncertainty in the estimate, it would be prudent to assume a conservative analysis and anticipate the maximum estimated peak flow increases. Although Sonoma County and the North Coast RWCB have not developed hydrograph modification or hydromodification management plans or policies, the current professional standards for hydromodification management plans (e.g., Alameda and Santa Clara Counties) stipulate no net increase in flood flow magnitude between pre- and post-project conditions.</p>

3.7	Erosion/Sedimentation Impacts	<p>The DEIR sediment yield assessments bias upland soil loss sources and do not accurately account for potential increased erosion to downstream receiving channels in association with the peak storm runoff magnitudes discussed above. At best the DEIR assessment provides a qualitative assessment of downstream channel erosion which assumes channels will have a low to moderate sensitivity to erosion (pg. 3.7-66). However, no attempt to quantify or account for the project-induced increase in erosion or sediment yield from downstream receiving channels are captured in the totals provided in the DEIR, which indicates a post-project decrease in sediment yield. Again, this is not a conservative assessment and provides and overly-optimistic future condition.</p>																														
3.9-9	General	<p>The traffic analysis fails to address traffic hazards during construction and operations, including hazards associated with large logging trucks and delivery and removal of grading equipment. Please add this analysis to the EIR.</p>																														
3.9-11	3 rd para	<p>Would double-gondola trucks be able to navigate Annapolis Road and other local access roads? To where would grapes be trucked? Is there a passenger-car-equivalent that should be added to Table 3.9-3 for these large trucks on hilly roads?</p>																														
3.10-6	Standards of Significance	<p>The Noise Standards of Significance seem to mischaracterize the County Noise Element, which has the following table of acceptable noise levels/durations:</p> <p>Table NE-2 Noise Level Performance Standards</p> <table border="1" data-bbox="711 1430 1430 1850"> <thead> <tr> <th colspan="4">Maximum Exterior Noise Level Standards, dBA</th> </tr> <tr> <th rowspan="2">Category</th> <th rowspan="2">Cumulative Duration of Noise Event in any one-hour period</th> <th>Daytime</th> <th>Nighttime</th> </tr> <tr> <th>7 a.m. to 10 p.m.</th> <th>10 p.m. to 7 a.m.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>30-60 Minutes</td> <td>50</td> <td>45</td> </tr> <tr> <td>2</td> <td>15-30 "</td> <td>55</td> <td>50</td> </tr> <tr> <td>3</td> <td>5-15 "</td> <td>60</td> <td>55</td> </tr> <tr> <td>4</td> <td>1-5 "</td> <td>65</td> <td>60</td> </tr> <tr> <td>5</td> <td>0-1 "</td> <td>70</td> <td>65</td> </tr> </tbody> </table>	Maximum Exterior Noise Level Standards, dBA				Category	Cumulative Duration of Noise Event in any one-hour period	Daytime	Nighttime	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.	1	30-60 Minutes	50	45	2	15-30 "	55	50	3	5-15 "	60	55	4	1-5 "	65	60	5	0-1 "	70	65
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		With respect to both daytime tree removal and grading, and night-time harvesting operations, the 30-60 minute cumulative duration of noise events would likely apply, resulting in daytime acceptable maximums of 50dBA and nighttime maximums of 45 dBA at the nearest offsite receptors. Please revise the significance criteria and impact analyses accordingly.
3.10	general	Please add a discussion of the specific noise sensitivity of the adjacent Starcross Monastic community and evaluate the impacts of project-generated noise on religious activities at that monastery.
3.10-7	Impact 3.10-7	Please add chainsaw noise to this analysis. Please add logging truck noise to this analysis. Please reconsider impact assessment in light of County noise standards discussed in our previous comment.
3.10-8/9	Impact 3.10-3	The EIR's project description does not rule out the use of mechanical harvesting equipment. The nighttime noise impacts of this machinery to adjacent residents needs to be analyzed. Also, please reassess operational noise in terms of the County's Noise Element Table NE-2, above. Mitigation 3.10-3 should be revised to prohibit both mechanical harvesting at night and any off- trucking of grapes prior to 8AM.
3.11-2	general	Please add discussion of where the site is visible from (both public and private views). This impact cannot be accurately determined absent this information.
3.11-9	First para.	The EIR states that there's no adverse impact to visual quality from changing from forested/meadows to intensive agriculture because both are have "openness". This fails to address that the forested/meadow appearance is one associated with natural areas and agriculture is not. In addition, forests obscure views of man-made features that may lay beyond, while vineyards do not. Therefore, although beauty is in the eye of the beholder, some viewers may find a significant adverse impact from the proposed conversion. As noted in this DEIR's Alternatives section, forested lands are considered aesthetically pleasing, and, therefore, the loss of such a visual amenity is a potentially significant impact.

		In addition, several recent CEQA court cases have ruled that the public can be considered an “expert” in visual quality. Please revise this impact to significant and unavoidable.
3.11-10	Light and glare	The EIR inexplicably considers two months of nighttime lighting, with harvesting machinery and with floodlights to be less than significant. Nighttime lighting for two months could disturb neighbors and others with more distant views of the site. Please include a lighting study supporting your conclusion or revise this impact to significant and unmitigable.
4-3	Last para.	It is unclear why only 750 acres of the proposed 19,652-acre Preservation Ranch project are included in the cumulative impacts assessment. From ecological, greenhouse gas, land use, traffic, noise, air quality, cultural resources, and visual perspectives all aspects of that project are relevant to the project’s cumulative impacts assessment. Therefore the entire Preservation Ranch project, including all 1861 acres of proposed vineyards, should be considered in the cumulative impacts assessment.
4-6 through 4-12	Timberland conversion discussion	This entire discussion is only of marginal relevance to answering the question of cumulative loss of timberlands and conversion of those timberlands to vineyards. The timberland-to-vineyard conversion data from the University of California study is 12 years old and therefore not representative of current cumulative conversion conditions. In addition, the Preservation Ranch THPs are not included in the acreages on p. 4-8, first full paragraph. The “Conclusion” on pp. 4-11/12 fails entirely to address cumulative loss of forested lands to vineyard conversions and just re-hashes the EIR’s conclusions regarding the loss of the project’s forested lands to vineyard conversion. The concluding statement that the project’s incremental contribution to the loss of forested lands is entirely unsupported by fact. In fact, even the outdated data included in the section indicates that cumulative land use changes in the County due to vineyard conversions may, in fact, be significant.
4-13 through	Climate Change	California has determined that it needs to reduce its GHG emissions to 1990 levels by 2020 - a reduction of

4-16		<p>approximately 30 percent, and then an 80 percent reduction below 1990 levels by 2050 to mitigate the State’s impacts to global climate change. In addition the Resources Agency had promulgated draft changes to the CEQA Guidelines stating that impeding the goals of AB 32 would normally be considered a significant impact. Given that the project would substantially and permanently reduce carbon sequestration by up to 1100 metric tons/year (the EIR’s stated “worst-case” carbon emissions increase of 83.6 metric tons of carbon emissions is actually the “best-case” impact, based on data provided in Table 4-3), it fails on its face to comply with AB 32 requirements and would contribute incrementally to this global cumulative impact.</p> <p>The EIR’s logic that each project’s emissions would not be cumulatively considerable because of the overall large statewide emissions flies in the face of the goal of cumulative impacts assessment, which is to consider effects that may be individually inconsiderable but cumulatively significant. The state legislature has determined that existing emissions of GHGs are already having a significant adverse effect on the environment, therefore an 1100-ton addition to that would clearly be cumulatively considerable. Please revise and add mitigation (i.e. purchase offsets, reforestation of other sites) or alternatives that would reduce the projects contribution to this impact (i.e select a non-forested site).</p> <p>As discussed in comments on the Air Quality section, above, the lack of established statewide thresholds does not relieve the Lead Agency from the obligation to do a good faith analysis of the significance of these impacts. Given that other Lead Agencies throughout the state have been assessing and determining the significance of GHG emission, there is absolutely no reason that CDF can’t do that for this project.</p>
4-19/20	Cultural Resources	<p>This analysis fails to address the potential for an archaeological or historic district to occur on and off of the project site. It should be revised to address the potential effects on local cultural resources of past and planned vineyard conversions and other land uses in the project</p>

		area.
4-22	Hydrology and Water Quality	<p>This analysis fails to address cumulative changes in streamflow regimes (particularly summer base flows) that would occur in local creeks and the Gualala River from the past and planned cumulative conversions of forested land to vineyards.</p> <p>The DEIR presents no cumulative impact assessment regarding how the project will contribute to existing and future hydrologic changes associated with other projects within the basin. The 2020 General Plan states that new vineyard development alone will increase over 124% along the Sonoma Coast by 2020 and favorable geologic and meteorologic conditions target the Annapolis area for this development. The DEIR simply presents a computation and argument that the project-induced increase in peak flow is a very small and, by itself, won't lead to a significant downstream impact. There is no effort to characterize or quantify how this "small" project impact will affect the basin in combination with other basin projects (e.g., housing, vineyard, roads, and forestry) that may also be introducing increases in peak flows. The DEIR does not quantify project-specific impacts related to aquifer pumping and changes in local groundwater conditions and how, if any, well pumping will impact adjacent land-owners who also rely on groundwater supplies for domestic uses. Please add an analysis of this.</p>
4-23	Traffic	The cumulative traffic assessment does not address traffic safety issues. Please add.
4-30/31	Aesthetics	This assessment correctly notes that the project would contribute to the loss of timberland and associated pleasing visual qualities. However, it fails to address the additive landscape changes from converting thousands of acres of iconic forested ridgetops in northwestern Sonoma County from forest to cultivated vineyards. These are visually prominent features in many views of the area and the project would contribute considerably to this significant visual change. Just because the ridges aren't considered scenic in the General Plan does not make them un-scenic. Please revise the impact assessment accordingly.
5-2	Section 5.4	As detailed in the above comments, the conclusion that the

		project would have no significant unavoidable environmental impacts is not accurate and should be revised accordingly.
6-2	Second from last paragraph	The statement that “All historical resources will be preserved...” is unsubstantiated by the existing studies (see comments on Cultural Resources section and accompanying Holman & Associates letter). Please revise this analysis accordingly.
6-5	Cultural resources	See above comment – studies to date do not support the statement that the project would avoid all significant cultural resources.
6-11	Transportation	This discussion addresses the No Project – No Action Alternative instead of the Timber Resource Management Alternative – please revise.
6-12	Offsite Alternative	<p>The Offsite Alternative has several major flaws:</p> <ol style="list-style-type: none"> 1) As discussed in our comments on Project Objectives, above, the objective of having a site that is optimal for a single grape variety is impermissibly narrow. (The focus on Pinot Noir in this section is inconsistent with, and even more restrictive than the already impermissibly narrow “Pinot Noir and Chardonnay” used in the project objective section of the EIR.) 2) The offsite alternative should consider non-forested lands elsewhere in Sonoma County, including lands already in production with other grape varieties (which would minimize new impacts). The DEIR fails to consider commercial availability of other Pinot Noir-suitable sites currently undeveloped but proposed for other projects that intend to develop and sell individual parcels as vineyards (Preservation Ranch). It fails 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. Finally, the DEIR fails to address contemporary (2009) economic and market conditions for premier wine grapes in setting feasible alternative project sizes. 3) The analysis of generic offsite alternative fails to provide decision-makers on the potential impacts

		<p>associated with, and the feasibility of, specific alternative sites. The EIR should select one or more specific sites (including unforested sites) for evaluation.</p> <p>4) The 300-acre offsite alternative selection criteria is oversized; due to unusual cultural and biological resources constraints specific to this site the project would have only 190-acres of vineyards, therefore a 200-acre alternative site criteria should be adequate.</p> <p>The offsite alternatives should be re-screened and reassessed to address the above deficiencies.</p>
6-19	Cultural Resources	<p>Given the numerous NRHP-eligible cultural resources sites on the proposed project site, it is highly unlikely that an alternative site would contain similar resources. To assume otherwise would be to make the unsupported assumption that most ridges in the area have native American village sites, which is false. Please revise.</p>
6-20	Reduced Acreage Alternative	<p>The DEIR fails to justify a minimum economically viable size for a reduced project alternative, and fails to account for older, adjacent vineyards with substantially smaller vineyard acreage. It fails to account for the previous Artesa proposal to convert 105 acres of vineyard rather than 171 acres. Why was this alternative limited to a 10% reduction in total site acreage? Given that the site has not been adequately searched for cultural resources, and given the significant loss of carbon sequestration on the site, please consider an alternative that further reduces the project's footprint and includes a reforestation component for the remainder of the site to offset the carbon sequestration loss associated with the project.</p>

Richard Grassetti

PRINCIPAL

Expertise

- CEQA/NEPA Environmental Assessment
- Project Management
- Geologic and Hydrologic Analysis
- Training and Education

Principal Professional Responsibilities

Mr. Grassetti is an environmental planner with 25 years of experience in environmental impact analysis, hydrologic and geologic assessment, project management, and regulatory compliance. He is a recognized expert on California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) processes, and has served as an expert witness on CEQA and planning issues. Mr. Grassetti regularly conducts peer review and QC/QA for all types of environmental impact analyses, and works frequently with public agencies, citizens groups, and applicants. He has managed the preparation of over 50 CEQA and NEPA documents, as well as numerous local agency planning and permitting documents. Mr. Grassetti has prepared over 200 hydrologic, geologic, and other technical analyses for CEQA and NEPA documents. He has analyzed the environmental impacts of a wide range of projects including residential developments, waste management projects, mixed-use developments, infrastructure improvements, energy development, military base reuse projects, and recreational facilities throughout the western U.S. In addition to his consulting practice, Mr. Grassetti regularly conducts professional training workshops on CEQA and NEPA compliance, and is a lecturer at California State University, East Bay, where he teaches courses on environmental impact assessment, among others.

Professional Services

- Management and preparation of all types of environmental impact assessment and documentation for public agencies, applicants, citizens groups, and attorneys
- Peer review of environmental documents for technical adequacy and regulatory compliance
- Expert witness services
- Assisting clients in CEQA and NEPA process compliance

- Preparation of hydrologic and geologic analyses for EIRs and EISs
- Preparation of project feasibility, opportunities, and constraints analyses, and mitigation monitoring and reporting plans

Education

University of Oregon, Eugene, Department of Geography, M.A., Geography (Emphasis on Fluvial Geomorphology and Water Resources Planning), 1981.

University of California, Berkeley, Department of Geography, B.A., Physical Geography, 1978.

Professional Experience

1992-Present	Principal, GECO Environmental Consulting, Berkeley, CA
1994-Present	Adjunct Professor, Department of Geography and Environmental Studies, California State University, Hayward, CA
1988-1992	Environmental Group Co-Manager / Senior Project Manager, LSA Associates, Inc. Richmond, CA
1987-1988	Independent Environmental Consultant, Berkeley, CA
1986-1987	Environmental / Urban Planner, City of Richmond, CA
1982-1986	Senior Technical Associate - Hydrology and Geology - Environmental Science Associates, Inc. San Francisco, CA
1979-1981	Graduate Teaching Fellow, Department of Geography, University of Oregon, Eugene, OR
1978	Intern, California Division of Mines and Geology, San Francisco, CA

Professional Affiliations and Certifications

Member and Past Chapter Director, Association of Environmental Professionals, San Francisco Bay Chapter
Member, International Association for Impact Assessment

***Publications
and Presentations***

Grassetti, R. *Round Up The Usual Suspects: Common Deficiencies in US and California Environmental Impact assessments.* Presented at International Association for Impact Assessment Conference, Vancouver, Canada. May 2004.

Grassetti, R. *Understanding Environmental Impact Assessment – A Layperson’s Guide to Environmental Impact Documents and Processes.* May 2005

Grassetti, R. *Developing a Citizens Handbook for Impact Assessment.* Presented at International Association for Impact Assessment Conference, Marrakech, Morocco. June 2003

Grassetti, R. *CEQA and Sustainability.* Presented at Association of Environmental Professionals Conference, Palm Springs, California. April 2002.

Grassetti, R. and M. Kent. *Certifying Green Development, an Incentive-Based Application of Environmental Impact Assessment.* Presented at International Association for Impact Assessment Conference, Cartagena, Colombia. May 2001

Grassetti, Richard. *Report from the Headwaters: Promises and Failures of Strategic Environmental Assessment in Preserving California’s Ancient Redwoods.* Presented at International Association for Impact Assessment Conference, Glasgow, Scotland. June 1999.

Grassetti, R. A., N. Dennis, and R. Odland. *An Analytical Framework for Sustainable Development in EIA in the USA.* Presented at International Association for Impact Assessment Conference, Christchurch, New Zealand. April 1998.

Grassetti, R. A. *Ethics, Public Policy, and the Environmental Professional.* Presented at the Association of Environmental Professionals Annual Conference, San Diego. May 1992.

Grassetti, R. A. *Regulation and Development of Urban Area Wetlands in the United States: The San Francisco Bay Area Case Study.* Water Quality Bulletin, United Nations/World Health Organization Collaborating Centre on Surface and Ground Water Quality. April 1989.

Grassetti, R. A. *Cumulative Impacts Analysis, An Overview.* Journal of Pesticide Reform. Fall 1986.

1986, 1987. Guest Lecturer, Environmental Studies Program, University of California, Berkeley.



holman & ASSOCIATES
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"SINCE THE BEGINNING"

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

July 21, 2009

Dear Mr. Robertson:

RE: REVIEW OF THE CULTURAL RESOURCES SECTION OF THE ARTESA PROJECT
DRAFT EIR

At your request I have completed a review of the cultural resources section of the Artesa Draft EIR produced by Raney Planning and Management, Inc. The studies cited include the original study done by Max Neri in 2001 and 2004, and two subsequent studies done by Tom Origer & Associates in 2006 and 2008. The cultural resources section summarizes the findings of the original Neri reports during which he recorded a total of 6 archaeological and/or historical sites, and then presents work done by Origer over a subsequent two year period at the locations of most of the archaeological sites recorded by Neri.

For the record I have not reviewed any of the original reports, rather just the summary presented in the EIR. The summary states that Neri conducted a complete inspection of the project area, resulting in the recording of specific resource locations. There is no mention of what if any mitigation measures were developed from the Neri studies.

By 2006 however, the issue of how to mitigate impacts to the recorded cultural resources was important: Tom Origer was retained twice to re-inspect the locations of the Neri work. Origer returned to the locations of Artesa-02,03,05 and 06/H to accurately record their aerial extent and depths, and to conduct minor archaeological excavations to provide a partial evaluation of their scientific worth: were they eligible for inclusion on the National Register of Historic Places and/or the California Register of Historic Resources?

The EIR states that the Origer work resulted in the elimination of two of the original sites, Artesa-03 and 06/H based upon their lack of significance. The EIR goes on to state in the mitigation section that further impacts to the significant sites will be avoided: in consultation with an archaeologist, buffer zones would be created around the recorded site locations and a program of archaeological field monitoring during construction would be done to insure that the

recorded sites would be protected, and that any new discoveries during construction would be identified, evaluated and impacts mitigated according to CEQA guidelines.

By the time I had finished reading the summary, I was confused about the nature of the work done on site by Mr. Origer. Did he actually go back and re-survey the entire project area, or was his work restricted to a re-inspection of the resource areas first noted by Neri? Mr. Origer did do some additional historical archival research which resulted in the discovery of additional possible residential sites near the saw mill, and his testing in the vicinity of the saw mill turned up evidence of historic archaeological materials: sheet scatters and possible dump areas were identified. The EIR summary dealt with the possibility of the discovery of additional historical material by developing mitigation measures which required the development of a monitoring plan: should anything be found during construction related monitoring, CEQA required archaeological evaluation and mitigation measures would be followed to reduce impacts to a less-than-significant level.

I called Mr. Origer to discuss the mitigation measures of the summary with him and to ask if he had conducted a complete re-inspection of the project area to search for additional unidentified archaeological resource areas, both prehistoric and historic in nature. Mr. Origer commented that the mitigation measures, as currently written, sounded adequate. He also denied that he had been retained either in 2006 or 2008 to conduct a re-inspection of the entire project area-his work up to that time was restricted to obtaining additional information about the resources originally recorded by Neri for planning purposes. According to the summary, the sites Artesa-01,02,04 and 05, all of them eligible for inclusion on the California Register, would be protected by avoidance. The two sites found ineligible by Origer (03 and 06/H) would not be protected along with several areas where he had found small amounts of stone artifactual materials. The summary's monitoring plan would handle the identification, evaluation and mitigation plan for any new resources which might be found during grading operations.

My principal concern with the EIR summary is its implication that the property has been adequately inventoried for both historic and/or historic resources to date, and that based on the existing archaeological record, any additional discoveries of cultural resources can wait until archaeological monitoring is done during construction.

I have problems with this assumption for a number of reasons:

- There is no way presently to gauge the effectiveness of the Neri survey done in 2001 and 2004. Did he do a credible enough job to identify in particular all of the prehistoric site locations inside the project borders? A review of his original reports may contain sufficient information to judge the adequacy of his effort, but I suspect it won't be found there.
- I have looked at maps of the area, and have some personal experience with the Annapolis area. The current project area is covered in large areas by duff and other forms of dense

vegetation. It is my experience that a visual reconnaissance, not augmented by some form of mechanical removal of the ground cover, would cause a field archaeologist to miss the more subtle archaeological site indicators which might exist inside the project area: Neri did record several examples of "flake scatters" which were confirmed by Origer during his subsequent visits. Origer, however, utilized shovel test units (stu's) and other forms of excavation to both test these deposits and to better define their aerial extent. I believe in all of these cases, the Origer studies led to the development of maps which showed the deposits to be larger than originally recorded.

- Finally, almost 9 years have passed since the initial Neri study. In that time, field conditions could have changed dramatically which would facilitate new discoveries. A new comprehensive field inspection of the entire project area is more than likely to define additional prehistoric deposits at a minimum and possibly add to the inventory of historic deposits. I don't know of a survey of a problematic area like Artesa (due to the extent of ground cover over native soils) where a re-survey years later didn't increase the archaeological inventory. I think every professional archaeologist in Northern California has experienced this when his or her work was done over by someone else years later. Certainly it has happened to me.

The types of archaeological sites re-inspected by Origer appear to be thin deposits of archaeological materials suggesting that activities in addition to the production or modification of stone artifacts was on-going. The ground stone suggests that a more varied form of habitation was taking place in prehistoric times. Since only one of the original sites (Artesa-01) showed a real deep deposit, I must assume that the project area could contain additional examples of the shallow multi-use archaeological deposits similar to those re-examined by Origer. Making use of the gentle slopes of the project area, the Native population could have moved camp sites frequently, leading to the development of large but thin deposits of archaeological material.

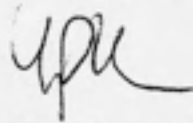
It is important that the testing done by Origer found that the three "scatters" found by Neri were eligible for inclusion on the California Register and worthy of protection as individual resource areas. If a new comprehensive field survey of the project area were done and additional examples of these types of resource areas were discovered, there may be a sufficient number of them to warrant recording them along with the existing prehistoric resource areas as an archaeological district, rather than as individual and unrelated examples of prehistoric use.

In short, I don't think that the existing inventory of the property is adequate to justify the mitigation measures currently in the draft EIR. A more systematic survey should be done to complete the inventory and to determine if there is grounds to define an archaeological district. Additional discoveries should not be limited to archaeological monitoring of construction activities, since this approach could ultimately result in the easily avoided destruction of the resources.

If an archaeological district can be justified, this may also require a change in the existing

mitigation measures. For example, additional discoveries may not be avoidable by the project development, requiring in-field evaluation to devise responsible mitigation measures. Individual archaeological sites tend to require mitigation specific to that location, without consideration to the potential larger constellation of archaeological resources. In the case of an archaeological district, the sum of the parts is larger than the total (or however that is said?)—the required testing and mitigation strategy required by CEQA could be considerably different than that presented in the current draft EIR, which would nullify the existing mitigation approach.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Holman', with a stylized flourish at the end.

Miley Paul Holman
Holman & Associates

RÉSUMÉ

MILEY PAUL HOLMAN
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Education:

1972: B.A., Anthropology, San Francisco State University

1985: M.A., Anthropology with specialty in Archaeology, San Francisco State University

Archaeological Experience:

Survey:

Marin	Mariposa County
Sonoma	Fresno County
Mendocino	Madera County
Humboldt	Tuolumne County
Solano	Tulare County
Sacramento	San Luis Obispo County
Colusa	Alameda County
Tehama	Contra Costa County
Shasta	Santa Clara County
Butte	Kings County
Sutter	Santa Barbara County
Yolo	Ventura County
Napa	Kern County
Los Angeles	Modoc County

Between 1965 and 1972 I worked as a field archaeologist, crew chief, project director and principal investigator at the Archaeological Research Center at San Francisco State University. Between 1971 and my retirement in 1998 I served as Assistant Curator and an adjunct professor of Anthropology at the Department of Anthropology, San Francisco State University. In 1974 I established Holman & Chavez Archaeological Consultants, which provided CEQA mandated archaeological services throughout the San Francisco Bay Area. In 1977 I established Holman & Associates, which has continued to provide prehistoric and historic archaeological research services throughout Northern California.