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August 17, 2020

VIA EMAIL & UNITED STATES MAIL

Board of Supervisors
County of Lake
255 N. Forbes Street
Lakeport, CA 95453

Mark Roberts, Principal Planner
Community Development Department
County of Lake
255 N. Forbes Street
Lakeport, CA 95453

Re: Appeal of Planning Commission Approval of Red Hills BioEnergy Project Major Use Permit UP 19-05, Initial Study/Negative Declaration IS 19-09

Dear Honorable Supervisors:

My law firm represents several businesses and individuals that own property and/or conduct operations near the property located at 7130 Red Hills Road, Kelseyville, California (the "Subject Property"), including Shannon Ranches ("Shannon") and Beckstoffer Vineyards-Red Hills ("Beckstoffer"). Beckstoffer appealed the County of Lake Planning Commission's approval of the Red Hills BioEnergy Project, including the Commission's approval of Major Use Permit UP 19-05, and recommended adoption of the Initiated Study/Negative Declaration IS 19-09 (collectively, the "Project"). On my clients' behalf, I am writing to urge the Board of Supervisors to grant the appeal and deny the Project.

Please note that I have also enclosed expert reports from Dale La Forest of Dale La Forest & Associates (Noise); Greg Gilbert of Autumn Wind Associates (Air Quality); and Clint Nelson (Agriculture), (see Exs. "A"-"C"), which are incorporated as if set forth fully herein.

A. Shannon, Beckstoffer, and the Importance of the Lake County Wine-Growing Region and the Red Hills Appellation

Beckstoffer has developed vineyards and opened tasting rooms throughout Lake, Napa, and Mendocino Counties. Beckstoffer is one of California's leading wine grape growers, and has been grower in California since 1973. Beckstoffer's founder, Andy Beckstoffer, was the Founding Director of the Napa Valley Grapegrowers Association, which began a new era of grape quality and land preservation to the wine industry. Beckstoffer has been recognized by the State of California as an Integrated Pest Management Innovator (1997). In 1998, Beckstoffer purchased over 1,000 acres near Mount Konocti in the Red Hills of Lake County. Since then, Beckstoffer has continued to invest in developing vineyards in the Red Hills area, and has been instrumental in the recognition of the Red Hills American Viticultural Area (AVA). For the past several decades, Beckstoffer has tirelessly promoted the Red Hills AVA, demonstrating that Lake County today shows the same potential for the winemaking industry that Napa Valley did in the 1960s.[1]

Shannon, in turn, has nearly three decades of history growing wine grapes in Lake County. Like Beckstoffer, Shannon's operations span several counties, including the Counties of Lake, Sonoma, and Napa. However, Shannon's primary focus is on Lake County; today, Shannon is one of the largest growers in the Red Hills AVA, with thousands of acres of vineyards. Shannon has also opened several tasting rooms, where it showcases its locally produced wines.

Both Beckstoffer and Shannon have significant concerns regarding the effects of the Project on nearby vineyards, agricultural operations, agri-tourism, and the Red Hills AVA. As explained in the expert report prepared by Mr. Nelson:

> The Red Hills AVA is known for rolling mountain ranges comprised of unique volcanic soils, intense solar radiation and picturesque landscapes. The summers are hot and dry with a strong diurnal shift. Following the onset of fall, cooler days and nights help promote and retain intense flavor development. The cumulative effect of ideal climate along with porous soils offer the potential for building a world class winegrowing region.

(Exhibit "C.") Notably, these unique conditions "mirror some of the well-known mountainous Napa Valley AVA's like Stag's Leap . . . ." (*Id.*) Coupled with exceptional air quality, an "abundance of light" associated with "less diffusion of solar radiation," and "well-drained volcanic soils rich in native materials ideal for sugar accumulation" coupled with "strong minerality," the Red Hills AVA provides a uniquely strong environment to grow world class grapes and produce extraordinarily high quality wines. (*Id.*)

[1] http://www.beckstoffervineyards.com/assets/pdf/2017-AndyBeckstofferNapaValleysMostPowerfulGrapegrower.pdf

Strong growing conditions, however, are only one component of a region's winegrowing success. The other is agri-tourism and local tasting rooms. As explained by Mr. Nelson, these tasting rooms are "critically important" to local wineries, and in particular smaller growers. Notably, "[d]irect to consumer (DtC) wine sales account for nearly 60% of total sales for wineries producing 50,000 cases or less . . . ." (*Id.*) Importantly, "[w]inery and/or tasting room customers expect—and demand—a rural atmosphere with unique and aesthetically pleasing visual resources that reflect the agricultural nature of the experience." (*Id.*) Thus, the preservation of the bucolic setting of both the vineyards and the tasting rooms is paramount, and interference with that rural backdrop has the potential to both adversely affect the aesthetic values needed for winery/tasting rooms to thrive and receive visitors.

With this backdrop in mind, both Beckstoffer and Shannon are significantly concerned about the placement of an industrial land use—and in particular a facility with the potential for the creation of dust and pathogen migration, that will result in a visual eyesore—in the midst of the bucolic, rural setting that is needed for tasting rooms and wineries to thrive and survive. This is simply the wrong location for the Project. The Project should be denied on the merits.

B. The Project is Not Appropriate for the Subject Property and the Surrounding Land Uses, and Should Be Denied on the Merits

1. The Project is Not Permitted under the County's Zoning Ordinance

The County asserts that the Project can be approved with a Major Use Permit pursuant to its Zoning Ordinance. (See Zoning Ordinance, §§ 21-8.5(l), 21-27.10 [Table B].) This is inaccurate, while a "power generation facility" may under some circumstances be developed in a residential zoning district, it cannot be constructed in a commercial zoning district. Here, the Subject Property is zoned both residential and commercial. Because the property is partly zoned commercial, any "power generation facility" is not permitted. The Applicant may argue the facilities are located on the residential portions of the Subject Property. This is not entirely accurate. Specifically, the BioGas Facility will need to tie in to the well and other facilities on the commercial portion of the property. As such, the County cannot issue a Major Use Permit for the Project.

In addition, the record does not include information sufficient to determine whether the Project constitutes a "power generation facility" as contemplated under the Zoning Ordinance. Specifically, the definition of "power generation facility" in Section 21-27(x) only refers to "[a]n ***electrical*** generation facility," and not a "natural gas" or "biogas" generation facility. Moreover, this provision includes certain thresholds that are only stated in terms of megawatts (*i.e.*, facilities over 3 MW require neighbor approval), and not units of measurement applicable to gas generation.

As such, based on the record before the Board, it does not appear evidence has been presented to demonstrate the Project could even be permitted through a Major Use Permit.[2]

2. The Board Cannot Make the Findings Necessary to Approve Proposed Major Use Permit 19-05

Section 21-51.4 of the County's Zoning Ordinance states a Major Use Permit can only be approved if the County finds, *inter alia*:

> That the establishment, maintenance, or operation of the use applied for will not under the circumstances of the particular case, be detrimental to the health, safety, morals, comfort and general welfare of the persons residing or working in the neighborhood of such proposed use, or be detrimental to property and improvements in the neighborhood or the general welfare of the County.

(Lake County, Zoning Ordinance, Art. 51, § 21-51.4(a)(1) [Findings Required for Approval].) The findings also require assurances of public safety (*i.e.*, traffic safety), consistency with the General Plan, and confirmation that no code violations exist. The County cannot make these findings.

As explained in detail below, substantial evidence of a fair argument exists that the Project would result in significant environmental effects. (See *infra*, § D.1.) Indeed, the Project will adversely affect nearby agricultural resources, residents, and persons working in the area. (*Id.*). As such, the County cannot find the Project would not "be detrimental to the health, safety, morals, comfort and general welfare of the persons residing or working in the neighborhood," or the general welfare of the County. Nor can the County find the Project is consistent with its plan-level documents, as explained below. (See *infra*, § G.)

Because the County cannot make the finding necessary to issue a Major Use Permit, or support those findings with substantial credible evidence, the Major Use Permit should be denied.

C. The IS/MND Fails to Disclose Important Information Needed to Evaluate the Environmental Effects of the Project

One of the fundamental problems with Initiated Study/Negative Declaration IS 19-09 (the "IS/MND") is that it merely ***presumes*** the project would be developed and operated in a way that reduces or avoids the Project's potential environmental effects. The IS/MND does not

[2] Counsel for appellants sought supporting information through a Public Records Act request; however, the County's response did not include information sufficient to demonstrate Section 21-27(x) applied. As such, to the extent the County relies upon new information that was not produced in response to the request for records, it will demonstrate the County violated the Public Records Act.

analyze the full range of environmental impacts that could occur as a result of the Project; rather, the IS/MND analyzes a high-level project design that is not inclusive of all information needed to evaluate environmental impacts. Rather, to avoid detailed analysis of particular impacts, the IS/MND simply ***presumes*** various project features will ultimately be incorporated into the project that would avoid or minimize potential environmental effects. By proceeding in this fashion, the IS/MND's project description avoids full discussion of the Project's potential environmental effects, as well as reasonable feasible mitigation necessary to ensure the Project would not have significant environmental effects.

Inaccurate Project Description. CEQA requires that the project description must include reasonably foreseeable future activities that are consequences of the project. (See *Laurel Heights Improvement Ass'n v. Regents of the Univ. of Cal.* (1988) 47 Cal.3d 376.) The IS/MND, however, fails to provide a description of the Project sufficient to identify and evaluate its potential environmental effects. Such information is necessary to evaluate whether the Project would have significant environmental impacts.

These omissions hinder a complete and accurate environmental review (and result in an invalid environmental document). Specifically, CEQA requires that the description of the project be accurate and consistent throughout the environmental document. (See, e.g., *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 195; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 738; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 730; *Santiago Water Dist. v. County if Orange* (1981) 118 Cal.App.3d 818, 830; *Christward Ministry v. County of San Diego* (1993) 13 Cal.App.4th 31, 45; *Dusek v. Anaheim Redevelopment Agency* (1986) 173 Cal.App.3d 1029, 1040.) As explained in *County of Inyo*:

> A curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against the environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (*i.e.*, the "no project" alternative) and weigh other alternatives in the balance.

(*County of Inyo*, *supra*, 71 Cal.App.3d at 192-93.)

After the IS/MND was circulated for public review, the Applicants were required to augment, modify, and further refine the scope and nature of the Project, and add further detail. (See Exs. "D," "E.") These Project alterations were specifically proposed to help Applicants argue the Project would have no environmental effects. In other words, they are directly relevant to environmental review under CEQA. As such, the Project Description is inadequate and unstable under CEQA, and cannot be approved as currently drafted. In addition, the IS/MND does not discuss the refinements and additional information presented by Applicants. At the very least, the

Project Description should be fully revised to include the new and different information provided by the Applicants, and the IS/MND should be recirculated to afford environmental review and public comment based on a full, complete, and stable project description.

Failure to Include All Project Components. The entire project being proposed (and not some smaller aspect of it), must be described in the environmental document. This requirement reflects the CEQA Guideline's definition of a "project" as the "whole of an action." (CEQA Guidelines, § 15378.) Here, the IS/MND does not describe the whole of the action, but rather a future hypothetical facility that has not been specifically proposed. The Project itself is merely the issuance of a Major Use Permit, meaning that an applicant in the future could construct a vastly expanded facility without adequate operational measures.

In addition, the Project Description and the discussion of existing conditions/baseline are insufficient to fully and accurately analyze the environmental impacts of the Project, as explained in full in Exhibits "A" and "B." Among other things, the IS/MND does not "adequately identify and discuss important emissions-related information regarding process rates and emissions-generating equipment to be used routinely at the proposed Red Hills BioEnergy operation," the document "lists contradictory information relevant to the determination of potentially significant emissions impacts,"[3] and in many cases the document "provides no information necessary to evaluate the project's emissions of federally- and state-regulated criteria air pollutants for determination of project-related significant air quality impacts." (Exhibit "B" at 2.) Numerous other examples concerning air quality—which are replete throughout the IS/MND—are listed in Exhibit B.

The same is true for noise impacts, as explained in the La Forest Report. (See generally Exhibit "A.") Among other things, there is no mention of ambient/existing conditions against which noise impacts should be evaluated. (*Id.* at 5.) Nor is there an adequate description of nearby sensitive receptors, or how far those receptors are from the Project operations. (See *id.* at 4-5.)

As a result, the IS/MND is inadequate because it does not identify all ***potential*** components of the Project.[4]

Piecemealing/Segmentation of Environmental Review. The failure to adequately describe a project, or provide sufficient detail, results in the improper piecemealing or segmentation of environmental review. Here, by omitting important details about the Project, the

[3] For this and other reasons, the Project Description is unstable, which renders the IS/MND invalid under CEQA.

[4] My office requested additional detail through requests for records under the Public Records Act. Much of the basic factual information needed to evaluate impacts was not provided. To the extent such documentation exists, but was not provided to my office, that would constitute a violation of the Public Records Act.

IS/MND does just that. In *Santiago Water District*, for example, the court held the environmental review for a mining operation inadequate because the project description omitted mention of the construction of water delivery facilities that were an integral part of the project. "Because of this omission, some important ramifications of the proposed project remained hidden from view at the time the project was being discussed and approved. This frustrates one of the core goals of CEQA." (*Santiago Water Dist.*, *supra*, 118 Cal.App.3d at 830.)

Here, the Project would allow a completely different and much larger project than that described in the IS/MND. As noted above, the Applicants were required, before and after the appeal, to augment, modify, and further refine the scope and nature of the Project. (See Exhibits "D," E.") By proceeding in this fashion, the IS/MND seeks to impermissibly piecemeal or segment environmental review.

Inadequate Description of the Environmental Baseline Conditions. As explained in the La Forest Report, the IS/MND includes no mention of ambient/existing conditions against which noise impacts should be evaluated. (Exhibit "A" at 5.) The IS/MND likewise includes an inadequate description of nearby sensitive receptors, including a failure to accurately measure how far those receptors are from the Project operations. (See *id.* at 4-5.) Due to this failure, the IS/MND's analysis of noise increases is incomplete and inaccurate. (*Id.* at 5-7.) Due to the failure to adequately describe baseline conditions, the IS/MND is invalid.

D. An Environmental Impact Report is Required for the Proposed Project

1. A Fair Argument Exists that the Project Will Have Significant Effects on the Environment and, as such, an EIR is Required

The Project is not appropriate for the Subject Property, and should therefore be denied on the merits. But even if the County were to consider the Project, the IS/MND is not the appropriate vehicle to evaluate the Project's potential environmental effects under CEQA. Rather, an Environmental Impact Report (EIR) is required, as there is substantial evidence supporting a fair argument that there are significant impacts from the Project, and those impacts could be cumulatively considerable.

Prior to considering any "project" under CEQA, a lead agency must first determine whether to prepare a Negative Declaration, a Mitigated Negative Declaration, or an EIR for the project. (CEQA Guidelines, § 15063.) The lead agency makes this determination based on what is called the "fair argument" standard. (CEQA Guidelines, § 15064(f)(1).) As explained by the Supreme Court:

> [S]ince the preparation of an EIR is the key to environmental protection under CEQA, accomplishment of the high objectives of hat act requires the preparation of an EIR whenever it can be fairly argued on the basis of

> substantial evidence that the project may have a significant environmental impact.

(*No Oil, Inc. v. City of Los Angeles* (1975) 13 Cal.3d 68, 75.)

The Supreme Court has explained that even in "close and doubtful cases," an EIR should *always* be prepared to ensure "the Legislature's objective of ensuring that environmental protection serve as the guiding criterion in agency decisions." (*Id.* at 84; see also Pub. Resources Code, § 21101, subd. (d).) Many courts have stated that the "EIR is the heart of CEQA. The report . . . may be viewed as an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes ***before*** they have reached ecological points of no return." (*Citizens for Quality Growth v. City of Mount Shasta* (1988) 198 Cal.App.3d 433, 438 [quoting *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810] [emphasis added].)

The CEQA Guidelines set forth the "fair argument" test used to evaluate whether an EIR is required:

> If the lead agency finds there is substantial evidence in the record that the project may have a significant effect on the environment, the lead agency shall prepare an EIR. Said another way, if a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency ***shall prepare an EIR*** even though it may also be presented with other substantial evidence that the project will not have a significant effect.

(CEQA Guidelines, § 15064(f)(1); see also Pub. Resources Code, § 21080, subd. (d) [internal citations omitted].)

Moreover, an agency's failure to gather or analyze information on a project's impacts can expand the scope of the fair argument standard necessitating the preparation of an EIR. (See, e.g., *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311 ["CEQA places the burden of environmental investigation on government rather than the public," and a lead agency "should not be allowed to hide behind its own failure to gather data."].)

Accordingly, if any commenting party makes a fair argument that the proposed project's environmental impacts "may have a significant effect on the environment," the County ***must*** prepare an EIR, even if other substantial evidence supports the argument that adverse environmental effects will ***not*** occur. (CEQA Guidelines, § 15064(g)(1); see also *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1316 ["[i]f there is substantial evidence of such an impact, contrary evidence is not adequate to support a decision to dispense with an EIR."].)

A mitigated negative declaration is only appropriate where the applicant has agreed to eliminate or avoid all potentially significant environmental impacts by incorporating mitigation measures into the project. (See Pub. Resources Code, §§ 21064.5, 21080, subd. (c)(2); CEQA Guidelines, §§ 15064(f)(2), 15070(b).)

Here, substantial evidence supports a fair argument that an EIR is necessary:

The Project Will Result in Significant Noise Impacts. This comment letter is accompanied by the August 14, 2020, Noise Impacts Report prepared by Dale La Forest & Associates. (See Exhibit "A.") That report raises numerous concerns and demonstrates the Project would have significant noise impacts. For example, Mr. La Forest explains that the backup warning alarms will result in significant and unavoidable noise increase. There will likewise be significant noise impacts associated with electrical generator, the wood chipper, and the front-end loader, all of which will exceed the County's noise thresholds. Mr. La Forest's report also discusses adverse impacts associated with short-term construction-related noise. (See *id.*)

In addition, Mr. La Forest's analysis shows the County's noise analysis is incomplete, as it does not actually evaluate the magnitude of the noise increase caused by the Project to sensitive receptors. Because the IS/MND does not examine these factors, it is insufficient under CEQA. (See *id.*)

In short, substantial evidence of a fair argument exists that the Project would have significant acoustic impacts, and that the Project would result in events that exceed the noise levels included in the Lake County General Plane. (See CEQA Guidelines, Appendix G, Subd. XI(a).) As a result, to the extent the County considers the Project for approval, an EIR should be prepared. (See *id.*)

The Project Will Result in Significant Aesthetic Impacts. CEQA requires analysis of a project's impacts on "view and other features of beauty." (*Ocean View Estates Homeowners Assn., Inc. v. Montecito Water Dist.* (2004) 116 Cal.App.4th 396, 401.) On this topic, "the opinions of area residents, if based on direct observation, may be relevant as to aesthetic impact and may constitute substantial evidence in support of a fair argument; no special expertise is required on this topic." (*The Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 908, 937 [requiring EIR, rather than Initial Study, in part to address neighbors' concerns regarding aesthetic impacts of project].)

The reports prepared by the Applicant suggest the facilities would be barely visible adjacent to the Project site due to the presents of trees and landscaping. However, as demonstrated by the attached pictures, a large power generation facility would be visible from both the Scenic Highway (S.R. 29) and Red Hills Road. (See Exhibit "F.")

Nor is there any analysis of the impacts of the facility on the scenic vistas and bucolic setting from the tasting rooms and viewsheds uphill from the Project Site. As is demonstrated by the attached diagrams, the facility would also create an unsightly feature uphill from the Project Site, which is the location of several important tasting rooms. (See Exhibit "F.") These opinions are confirmed by the opinions of Mr. Nelson, who explains the importance of the bucolic nature of the local setting, as well as the impact of the facility, to local vineyards and tasting rooms. (See Exhibit "C.")

The Project Will Result in Significant Impacts to Agricultural Resources. The Project would negative effect agricultural recourse in numerous respects. First, the Subject Property is located next to several vineyard properties. Photographs submitted by several nearby residents, employees, and landowners have demonstrated the wood chipping on the Subject Property can easily result in wind-borne migration of dust and wood chippings. This has the significant potential to convey windborne pathogens to local vineyards, including fungal, insect, and mite infestations. (See Exhibit "C.")

The Project would also adversely affect the Red Hills AVA, which would in turn adversely affect other winegrowers and agricultural properties in the area. As explained by Mr. Nelson, the wine industry is largely tourism based, with direct to customer (DtC)—*i.e.*, tasting room—sales comprising over 60% of small to mid-size wineries' sales. These wineries and tasting rooms thrive on tourism, which is driven to the area by a bucolic, agricultural setting similar to what the tourists would expect to see in Napa Valley or the winemaking regions of Sonoma County. This Project would result in the construction of a power generation facility that would lie directly in the viewshed of several tasting rooms. This directly undermines the agricultural, rural, and bucolic setting that tourists expect from the region. As such, the Project, if approved, would undermine and inhibit the ability of agricultural uses to survive and thrive. Based on the foregoing, which is explained in detail in Mr. Nelson's report, the Project would result in potentially significant impacts to agriculture. (See Exhibit "C.")

The Project Will Result in Significant Air Quality, and in Particular Fugitive Dust and PM10. According to the Air Resources Board, fugitive dust can:

- Reduce visibility on roadways, creating traffic safety impacts, which is also a violation of Section 41701 of the Health & Safety Code.
- Cause significant health effects, including exacerbating asthma
- Reduce crop yields by depositing dust on foliage

Despite this, there is no discussion in the MND as to the generation of fugitive dust from the Project, or how the applicant intends to comply with the Health & Safety Code. Fugitive dust and airborne waste from the Subject Property is a known and documented issue. In addition

to the fact that several witnesses have complained to the County, the local air district, and the California Air Resources Board about the current issues on the property, the County has received several photographs showing wood chippings and dust from the Subject Property on nearby properties. As such, the Project will continue to cause negative dust and other impacts for nearby properties. Finally, this letter encloses the report of Mr. Greg Gilbert, an expert in air quality, whose opinion states that, without mitigation, the Project would result in significant adverse air quality impacts. (See Exhibit "B.")

The air quality analysis in the IS/MND is also insufficient under CEQA because it does not address all of the potential air quality impacts noted in Appendix G of the CEQA Guidelines. (See, e.g., Exhibit "B" at 4-6.)

The Project Will Result in Adverse Health Impacts. The IS/MND also fails to sufficiently explain the nature and magnitude of the Project's health impacts on nearby residents and employees before concluding that the impacts would be less than significant. (*Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 523 (hereafter *Friant Ranch*) [emphasizing that "a sufficient discussion of significant impacts requires not merely a determination of whether an impact is significant, but some effort to explain the nature and magnitude of the impact"].) An environmental document must discuss the health and safety problems that the proposed project may induce. (CEQA Guidelines, § 15126.2, subd. (a) [requiring an EIR to discuss the "health and safety problems caused by the physical changes" that the proposed project will induce].) More specifically, when it comes to significant air quality impacts, an environmental document must allow the public to translate bare air pollutant data into adverse health impacts, or to understand why such translation is not possible. (*Friant Ranch*, supra, 6 Cal.5th 502, 525.)

Here, the IS/MND does not adequately address this issue. This is critically important here, as the County has received evidence that similar operations have adversely affected the health of nearby residents and employees.

The Project Will Result in Significant Land Use Impacts. CEQA requires agencies to evaluate whether a proposed development project will, among other things, conflict with any land use plan, policy, or regulation of an agency with jurisdiction over a project. A fair argument exists that the Project as proposed will result in several conflicts with both the County's General Plan and Rivieras Area Plan. First, the Project seeks to bring an industrial land use into an area that is predominantly rural residential and agricultural. This conflicts with both sound land use principles, as industrial land uses are typically incompatible with residential land uses, particularly when they are adjacent to each other. It also interferes with the County's objectives and plans to promote agriculture and agritourism. Further, as explained in detail below, the Project is inconsistent with several policies and programs articulated in the County's General Plan. (See *infra*, § G.)

In short, as the Project is presently designed, substantial evidence supports a fair argument that the Project will cause significant environmental effects. As a result, the County cannot approve the IS/MND.

2. The MND Fails to Analyze the Project's Cumulative Impacts

CEQA "require[s] a finding that a project may have a 'significant effect on the environment' if . . . [t]he possible effects of a project are individually limited but cumulatively considerable." (Pub. Res. Code, § 21083.) A project's cumulative impacts are significant if the project's incremental contribution to the impact is "cumulative considerable." (CEQA Guidelines § 15130(a).) A Project's incremental contribution is cumulatively considerable if the incremental effects of the project are significant "when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines § 15065(a)(3).) The fact that a particular project's incremental impact is not alone significant, or is relatively small when compared to the greater overall problem, does not mean the project does not have significant cumulative impacts. This theory was rejected in *Kings County Farm Bureau* because it would allow "the approval of projects which, when taken in isolation, appear insignificant, but when viewed together, appear startling." (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-21.) The proper standard for a cumulative impacts analysis is whether the impacts are "collectively significant." (*Id.* at 721 [citing CEQS Guidelines, § 15355].)

If a project's incremental contribution to the impact is "cumulative considerable," (CEQA Guidelines § 15130(a)) – *i.e.*, if they are "collectively significant," (*Kings County Farm Bureau*, *supra*, 221 Cal.App.3d at 721) – the lead agency must examine reasonable, feasible options for reducing or avoiding the project's contribution to those significant cumulative effects. (CEQA Guidelines, § 15130(b)(5).) A mitigated negative declaration may not be adopted unless the al potentially significant environmental impacts are eliminated or avoided by incorporating such mitigation measures into the project. (See, e.g., Pub. Resources Code, §§ 21064.5, 21080, subd. (c)(2); CEQA Guidelines, § 15064(f)(2), 15070(b).)

Here, the IS/MND did not include a cumulative impacts analysis. No other projects—past, present, or future—were identified. The only discussion of such impacts is in the Mandatory Findings of Significant; but these are findings without supporting evidence, or even identification to other development in the vicinity. Because the County did not evaluate cumulative impacts in any meaningful way, the IS/MND cannot be adopted.

E. The IS/MND Impermissibly Relies Upon Non-Binding Project Design Features to Reduce the Project's Significant Environmental Effects

The IS/MND asserts the applicant would incorporate several design features into the Project that are ultimately intended to prevent the occurrence of or minimize the significance

of adverse environmental effects. The IS/MND then applies these design features to the Project's unmitigated impacts on, *inter alia*, noise, odors, and air quality to conclude the Project's impacts are supposedly less than significant, without discussing the severity of the impact prior to mitigation, and without incorporating the alleged design features as ***binding*** mitigation measures.

Among other things, the supplemental project description provided by Applicants, as well as the May 7, 2020, document prepared by the Applicants, purport to make certain representations about how the Project will mitigate dust, noise, and other environmental effects. (See Exhibits "D," "E.") For example, without modifying the Project Description, the Applicants state the Applicant will use a specific type of system (Artis), a specific type of generator (150W Gillette), and that only a certain number of trucks will visit the site. Many other examples are included in the La Forest Report. However, none of these alleged commitments—or others—were included in either the Project Description or as mitigation. (See also Exhibits "A," "B" [La Forest, Nelson, Autumn Wind Reports].)

1. Failure to Disclose Potentially Significant Impacts Prior to Mitigation

The IS/MND's use of purported design features to attempt to minimize the Project's unmitigated impacts violates CEQA's requirement that the lead agency must first determine the extent of a project's impacts before it may apply mitigation measures to reduce those impacts. (CEQA Guidelines, § 15370; *Lotus v. Dept. of Trans.* (2014) 223 Cal.App.4th 645, 651-52.) In addition, the CEQA Guidelines define "measures which are proposed by project proponents to be included in the project" as "mitigation measures" within the meaning of CEQA. (CEQA Guidelines, § l5126.4(a)(l)(A).) As described in Section 15370 of the CEQA Guidelines, "mitigation" includes:

> (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
>
> (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
>
> (c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
>
> (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
>
> (e) Compensating for the impact by replacing or providing substitute resources or environments.

(*Lotus*, *supra*, 223 Cal.App.4th at 650.)

California courts interpreting Section 15370 have held that "avoidance, minimization and/or mitigation measures," are not "part of the project." (*Id.* at 656.) Rather, they are mitigation measures designed to reduce or eliminate environmental impacts of the Project, ***and must be treated as such***. Mitigation measures cannot be incorporated in an IS/MND's initial calculation of the Project's unmitigated impacts because the analysis of unmitigated impacts, by definition, must accurately assess such impacts ***before*** any mitigation measures to reduce those impacts are applied. (*Id.* at 651-52.) An environmental document that conflates the analysis of impacts and mitigation measures into a single issue disregards the requirements of CEQA.

Because CEQA prohibits the conflation mitigation measures with project features, the IS/MND's lack of analysis of potential environmental impacts caused by the Project violates CEQA. The IS/MND should be revised to disclose the severity of all potentially significant impacts prior to mitigation.

2. Failure to Require Enforceable Mitigation

To be adequate under CEQA, mitigation measures must be enforceable through conditions of approval, contracts, or other methods to ensure the measures are legally binding. (Pub. Resources Code, § 21081.6, subd. (b); CEQA Guidelines, § 15126.4(a)(2); *Lotus*, *supra*, 223 Cal.App.4th at 651-52.) This requirement is intended to ensure that mitigation measures will actually be implemented, not merely adopted and then ignored. (*Fed. of Hillside & Cyn. Ass'n v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261; *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1186.)

The IS/MND's reliance on design features (as opposed to binding mitigation) fails to meet this threshold requirement because the measures are not incorporated as binding mitigation measures in either the MMRP or proposed Conditions of Approval. As a result, the IS/MND fails to include any binding mechanism to ensure the applicant would actually implement these measures for the Project. Without an enforceable mechanism, the project features described in the IS/MND are little more than aspirations about what might occur, and the IS/MND's conclusions that the Project's impacts would be less than significant with these project features incorporated are unsupported.

If the County intends to rely upon project features to reduce or avoid potentially significant impacts, and to reduce those impacts to less than significant levels, the project features must be incorporated into the Project's MMRP and Conditions of Approval. (*Lotus*, *supra*, 223 Cal.App.4th at 651-52.)

3. Impermissible Deferral of Mitigation

Under CEQA, the lead agency must adopt all feasible mitigation measures that minimize the significant environmental impacts of a project. (Pub. Resources Code, § 21002;

CEQA Guidelines § 15126.4(a)(1).) Lead Agencies generally may not defer formulation of mitigation measures to the future. (CEQA Guidelines, § 15126.4(a)(1)(B).) A lead agency can only defer mitigation where, *inter alia*, the environmental document sets forth criteria governing future actions to implement mitigation, and the agency has assurances that future mitigation will be both "feasible and efficacious." (*Califs. for Alternatives to Toxics v. Dept. of Food & Agric.* (2005) 136 Cal.App.4th 1, 17.) Impermissible deferral occurs when an EIR calls for mitigation measures to be created based on future studies but the agency fails to commit itself to specific performance standards. (*Cal. Clean Energy Comm. v. City of Woodland* (2014) 225 Cal.4th 173, 195.)

Several mitigation measures identified in the IS/MND suffer from these defects, including:

- Mitigation Measure HYD-1 merely states that the applicant must receive permits, but it does not explain how those approvals might actually result in mitigation, or what that mitigation may entail. Rather, the mitigation is deferred to a later date. As such, the mitigation measure is unlawful.

- Mitigation Measure NOI-1 does not specify what noise-reducing measures must be used, and there is no performance standard or other guidance articulated. As such, this mitigation measure contemplates the impermissible deferral of mitigation.

- Mitigation Measure NOI-2 does not actually articulate mitigation, but merely restates the County's zoning code. There is no mitigation actually required, leaving mitigation up to future discretion by the County and/or the Applicant. It is thus invalid.

- Mitigation Measure FIRE-1 reserves the siting of facilities to a future date, without explaining which standards or other requirements with which the Applicant must comply. Rather, it leaves those measures to future discretion. This is the impermissible deferral of mitigation, and thus unlawful.

Similarly, several mitigation measures are impermissibly vague, including the following:

- Mitigation Measure AES-2 is impermissibly vague because it does not provide any standards for screening; it merely provides for healthy, non-hazardous vegetation that "provides screening." This is insufficient under CEQA.

- Mitigation Measure AIR-4 does not specify which fugitive dust control measures must be implemented, or what the performance standard is to prevent migration. It is likewise deficient.

- Mitigation Measure CUL-2 is incomplete. While it requires a cultural resources monitor to be present, there is no verbiage concerning the what the role of the monitor might be, or what authority the monitor may have.

- Mitigation Measure NOI-1 is likewise incomplete. It does not state what "lowest allowable levels" actually are, or how those would reduce the noise volumes to less than significant. It likewise does not provide any standards for noise-reducing measures, but merely states that "noise-reducing measures" must be utilized.

- Mitigation Measure NOI-2 does not actually articulate mitigation, but merely restates the County's zoning code. It is vague because it does not actually articulate any affirmative measures, or create any enforceable mechanism to reduce noise, particularly during Project operation.

Moreover, as explained by Mr. La Forest in his comments, the IS/MND's noise-related mitigation measures are inadequate, "because they fail to prevent excessive increases in construction noise and operational noise levels at nearby homes, and because they would allow County planning staff to subsequently approve a new noise study and new noise mitigations without public review." (Exhibit "A.")

Further, as explained by Mr. Gilbert in the Autumn Wind comments, numerous air quality mitigation measures that are required to lessen impacts to a less-than-significant level have not been included. And the existing mitigation contains flawed language that violates CEQA. (See Exhibit "B" at 9-10.).

Until the above mitigation measures are corrected, the County may not adopt the IS/MND or approve the Project

F. The IS/MND Must Be Recirculated for Public Review

If, after circulation of an initial study, mitigation measures are changed, the initial study should be recirculated for additional public review. (See CEQA Guidelines, § 15073.5.) Based on the analyses included with this submission, and the arguments articulated above, at the very least, several mitigation measures must be adopted and/or revised. This appears to be recognized in the Rebuttal to Appeal and other documents, which make certain representations about mitigation of noise and dust, and other issues (without incorporating those alleged commitments as mitigation measures). (See also *supra*, § E.) As a result, the Project may not be

approved until several additional mitigation measures are added, at which time the IS/MND must be recirculated for public comment.

G. The Project Is Inconsistent With the Lake County General Plan and The County's Rivieras Area Plan

State planning and zoning law requires that all land-use decisions of counties must be consistent with the county's General Plan. (Govt. Code, § 65860, subd. (a); see also *Corona-Norco Unif. Sch. Dist. v. City of Corona* (1993) 17 Cal.App.4th 985, 994.) A "project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment." (*Corona-Norco*, *supra*, 17 Cal.App.4th at 994.) While perfect conformity may not be required, "a project ***must*** be compatible with the objectives and policies of the general plan." (*Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 782 [emphasis added] [citing *Families Unafraid to Uphold Rural etc. County v. Board of Supers.* (1998) 62 Cal.App.4th 1332, 1336].) "A project is inconsistent if it conflicts with a general plan policy that is fundamental, mandatory, and clear." (*Endangered Habitats*, *supra*, 131 Cal.App.4th at 782 [citing *Families Unafraid*, *supra*, 62 Cal.App.4th at 1341-42].)

The Project is inconsistent with several goals and policies of the County's General Plan:

- ***General Plan Goal LU-1***. The Project is inconsistent with this goal because it would discourage, diminish, and undermine agriculture and agricultural tourism, and in particular the wine industry. The Project would also diminish and undermine existing quality of life standards, particularly to nearby residents and businesses, due to noise, dust migration, aesthetic impacts, and other issues.

- ***General Plan Policy LU-1.1.*** The Project is inconsistent with this policy because it directs an urban use in a largely rural area, and not in an area occupied by similar industrial uses. It therefore does not direct growth toward existing communities. It likewise does not preserve open space, but rather undermines the preservation of open space, because it will result in an industrial use in an otherwise bucolic area.

- ***General Plan Policy LU-1.3.*** The facility contemplated by the Project is incompatible with adjacent residential, commercial, and agricultural uses. As such, the Project is inconsistent with this policy.

- ***General Plan Goal LU-2 and Policy LU-2.3.*** Because the Project contemplates an industrial, urban use in a rural area, it undermines the

County's ability to differentiate between urban and rural uses, and undermines the urban edge of existing communities.

- ***General Plan Policy LU-2.4.*** The Project does not contemplate any agricultural buffers or setbacks. As such, the Project is inconsistent with this policy.

- ***General Plan Policy LU-5.*** This Project contemplates an industrial facility on land not otherwise designated for such uses. As such, the Project is not consistent with this goal.

- ***General Plan Policy LU-5.4.*** The Project is entirely inconsistent with this policy, which requires compatibility of industrial projects with surrounding land uses.

- ***General Plan Policy LU-5.5.*** The Project is inconsistent with this provision because it contemplates access from a residential area.

- ***General Plan Policy LU-5.6.*** The Project is inconsistent with this policy because it was not permitted under a planned development process, and the property is over five acres in size.

- ***General Plan Policy LU-6.4.*** The Project is not a high quality development that will entice visitors, businesses, and permanent residents to the area; rather, it will undermine such attractive features. As such, the Project is inconsistent with this policy.

- ***General Plan Policy LU-6.7.*** The Project is inconsistent with this policy. Much community pride is built upon the numerous appellations and the winery industry in the County. This Project—placing an industrial land use in the middle of vineyards and tasting rooms—is inconsistent with this community feature.

- ***General Plan Policy LU-6.8.*** The Project is inconsistent with this policy because the Project undermines agritourism.

- ***General Plan Policy LU-7.10.*** The Project is inconsistent with this policy because the industrial facility will interfere with visual access to the hillsides, vineyards, and other distinctive natural areas.

- ***General Plan Policy LU-7.13.*** The Project would undermine agricultural uses and agritourism, as opposed to enhancing recreational features. As such, it is inconsistent with this policy.

- ***General Plan Policy LU-7.15.*** The Project does not contemplate screening of the facility, including visual impacts. As such, it is inconsistent with this policy.

- ***General Plan Policy HE-3.9.*** The residents and employees near the existing site have made numerous complaints regarding PG&E's operations on the site. However, those went unabated, with code enforcement taking no action. There is nothing in the Project approval to ensure code enforcement will ensure any nuisances are abated. As such, the Project is inconsistent with this policy.

- ***General Plan Policy HE-7.1.*** The Project will undermine nearby agricultural uses and agritourism, including local tasting rooms. It will also lessen the value of, and undermine, the Red Hills AVA. In addition, operations at the project site have already interfered with nearby commercial and residential uses. As such, the Project is inconsistent with this policy because it undermines the development of a job base.

- ***General Plan Policy PFS-6.2.*** To the extent the Project could be considered to include an electric facility, the facility would not be appropriately sited to minimize environmental and other impacts. As such, it is inconsistent with this policy.

- ***General Plan Policy HS-1.1.*** The County was unable to abate the nuisance caused by PG&E's use of the hammermill at the existing site. As such, the Project would be inconsistent with this policy, due to the danger that such fugitive dust and wood scrappign creates.

- ***General Plan Policy HS-3.4.*** The Project does not contemplate the paving of all internal roads used by trucks. In addition, there is a significant likelihood of continued dust associated with the Project. All of this is inconsistent with this policy.

- ***General Plan Policy HS-3.10.*** The Project does not contemplate adequate dust suppression measures and, as a result, it is inconsistent with this policy.

- ***General Plan Goal N-1***. The Project is inconsistent with this goal because it would not shield residents, employees, and visitors from excessive noise.

- ***General Plan Policy N-1.2.*** The Project would result in impacts to sensitive receptors that would exceed the thresholds identified in Table 8-1. As such, the Project would be inconsistent with this policy.

- ***General Plan Policy N-1.3.*** For the same reasons as Policy N-1.2, the Project is inconsistent with this policy.

- ***General Plan Policy N-1.4.*** The Project proponents did not site the facility in a manner that would result in successful noise attenuation. Nor are any of the mitigation measures in this policy required to be implemented. As such, the Project is inconsistent with this policy.

- ***General Plan Policy N-1.5.*** The Project does not include any abatement for transportation noise, including noise associated with heavy vehicles. The mitigation measures in this policy have not been required. As such, the Project is inconsistent with this policy.

- ***General Plan Policies OSC-1.18, OSC-2.13, and OSC-2.16.*** The Project does not endeavor to reduce or minimize lighting impacts to nearby uses, including residential uses and tasting rooms. As such, the Project is inconsistent with these policies.

- ***General Plan Goal OSC-2.*** The Project contemplates bringing an industrial facility into a rural area, which will interfere with both views from the scenic road and uphill tasting rooms and vistas. As a result, the Project is incompatible with this goal.

- ***General Plan Policy OSC-2.1.*** Although the Project contemplates the design of an industrial facility within a rural area, none of the guidelines in this policy were implemented. As such, the Project is inconsistent with this policy.

- ***General Plan Policy OSC-2.7.*** The Project does not contemplate sufficient landscaping to shield the development from the scenic roadway or nearby tasting rooms. As such, it is inconsistent with this policy.

- ***General Plan Policy OSC-2.8.*** Although S.R. 29 is a designated scenic roadway, the Project contemplates an industrial development along the parcel abutting the roadway. The view of these facilities are not screened. As such, the Project is inconsistent with this policy.

- ***General Plan Policy OSC-4.4.*** The Project would result in the generation of dust, and thus would interfere with and undermine this policy.

- ***General Plan Policies GR-2.1, 2.3.*** The Project contemplated that industrial facilities with anticipated dust migration and wood chippings would be sited nearby residential properties, agricultural uses, and tasting rooms. This is inconsistent with these policies.

- ***General Plan Policy GR-2.4.*** Rather than using new technologies to curb environmental impacts, the Project relies upon wood-chipping that causes dust migration and health hazards for nearby residents. The Project is thus inconsistent with this policy.

- ***General Plan Policy GR-2.15.*** The Project does not seek to minimize dust migration or contamination drift, or otherwise minimize air emissions. As such, the Project is inconsistent with this policy.

- ***General Plan Policy GR-2.16.*** This energy Project would result in adverse environmental impacts, and would thus be inconsistent with this policy.

- ***General Plan Policy GR-2.17.*** The Project would result in significant adverse noise impacts, as explained in the LaForest report. As such, the Project is inconsistent with this policy.

- ***General Plan Policy GR-2.22.*** There is no requirement that all internal roads used by trucks be paved, which is inconsistent with this policy.

- ***General Plan Goal AR-1.*** The Project undermines nearby agricultural and agro-tourism uses. As such, it is inconsistent with this goal.

- ***General Plan Policy AR-1.2.*** The Project undermines—rather than supports—nearby agricultural and agro-tourism uses. As a result, the Project is inconsistent with this policy.

- ***General Plan Policies AR-1.3, 1.4.*** These policies contemplate limiting non-agricultural development intensity around agricultural properties, while the Project does the opposite. No buffers or other mitigation measures were contemplated. It is thus inconsistent with these policies.

- ***General Plan Policy AR-1.6.*** No buffers have been suggested between the Project and agricultural land uses. The Project is inconsistent with this policy.

- ***General Plan Policy AR-1.7.*** This Project contemplates the extension of utilities, including electricity generation, into agriculutural areas. It is thus inconsistent with this policy.

- ***General Plan Policies AR-2.1, 2.2, 2.6.*** The Project undermines agricultural development and agri-tourism by interfering with vineyards and tasting rooms. It does not promote agriculture or economic development of agriculture in any way. As such, it is inconsistent with these policies

- ***Rivieras Area Plan Objective 3.4.1a*** (*Recognition by residents that preservation of agricultural lands provides privately maintained open-space and facilitates a rural lifestyle*). The Project contemplates an industrial land use adjacent to agricultural and agri-tourism uses. The Project undermines those uses. The Project is inconsistent with this objective.

- ***Rivieras Area Plan Objective* 3.4.1b** (*Protection of agricultural lands and operations from conflicting uses*). The Project contemplates an industrial land use adjacent to agricultural and agri-tourism uses. The Project conflicts with and undermines those uses. The Project is inconsistent with this objective.

- ***Rivieras Area Plan Policy 3.4.1a*** (*Buffer zones shall be incorporated into new projects adjoining dissimilar uses to reduce land use conflicts*). The Project contemplates an industrial land use adjacent to agricultural and agri-tourism uses. The Project undermines and conflicts with those uses. No buffers were proposed. The Project is inconsistent with this objective.

- ***Rivieras Area Plan Policy 3.4.1b*** (*Lands adjacent to agricultural lands shall be designated for low density use, wherever feasible, to serve as buffer areas between agricultural operations and suburban and higher density uses*). The Project contemplates an industrial land use adjacent to agricultural and agri-tourism uses, as opposed to low density land uses. The Project is inconsistent with this objective.

- ***Rivieras Area Plan Policy 3.4.1c*** (*Prohibit new non-agricultural uses in agricultural areas that can interfere with any normal agricultural operations or its necessary accessory uses*). The Project contemplates an industrial land use adjacent to agricultural and agri-tourism uses. The Project undermines those uses, and interferes directly with those uses through dust and pathogen migration, as well as interfering with agri-tourism and tasting rooms. The Project is inconsistent with this objective.

- ***Rivieras Area Plan Objective 3.5.2a*** **(***To take measures to protect and enhance scenic resources in the Rivieras Planning Area and promote a visually appealing environment)*. The Project seeks to place an industrial facility near a scenic roadway, and in a place where it can be visible from, and on the way toward, tasting rooms. The Project will undermine scenic resources, and it will be inconsistent with this objective.

- ***Rivieras Area Plan Objective 3.5.2b*** **(***To maintain the rural character of the planning area***)**. The Project contemplates the introduction of industrial facilities into a rural areas. It is inconsistent with this objective.

- ***Rivieras Area Plan Policy 3.5.2a*** (*The County shall encourage utility lines to be installed underground wherever possible. Where installing utilities underground is not practical, lines shall be sited in a manner that minimizes their visual intrusion*). The Project contemplates above-ground facilities where it is feasible to construct underground utilities. It is thus inconsistent with this policy.

- ***Rivieras Area Plan Policy 3.5.2b*** (*The siting of structures must not only reflect appropriate setbacks, but also consider the rural vista. Buildings should complement and not block views*). The industrial facilities interfere with the rural vista, both from the scenic roadway, as well as nearby tasting rooms. The Project is thus inconsistent with this policy.

- ***Rivieras Area Plan Objective 3.5.2c*** (*Protect the natural scenery along scenic highways and roads from new development that would diminish the aesthetic value of the scenic corridor*)**.** The industrial facilities interfere with the rural vista from the scenic roadway. The Project is thus inconsistent with this objective.

- ***Rivieras Area Plan Policy 3.5.2c*** (*New development along scenic corridors should be designed to relate to the dominant character of the corridor or of a particular segment of the corridor. Relationships shall be achieved in part through regulations concerning building form, site location and density of new development*). The industrial facilities interfere with the rural vista from the scenic roadway. The Project is thus inconsistent with this policy.

- ***Rivieras Area Plan Objective 3.5.2d*** (*To establish and enforce design standards which will give the County, private property owners and developers a tool to achieve the highest architectural, functional, cost-effective and environmental quality*). The Project does not incorporate the

highest architectural, functional, cost-effective and environmental quality design. It is thus inconsistent with this objective.

- ***Rivieras Area Plan Objective 4.4.1*** (*To protect the health of residents of the Rivieras Planning Area from poor or diminished air quality*). Wood chipping operations has interfered with the health of nearby residents and employees. The Project contemplates that those activities would be permitted, continue, and promoted. The Project is thus inconsistent with this objective.

- ***Rivieras Area Plan Objective 4.4.2*** **(***To maintain clear visibility for the area's view sheds***).** The industrial facilities interfere with the rural vista, both from the scenic roadway, as well as nearby tasting rooms. The Project is thus inconsistent with this policy.

- ***Rivieras Area Plan Objective 5.2.1b*** (*Ensure that new development does not conflict with existing development*)**.** The Project contemplates the introduction of industrial facilities into a rural areas. It is inconsistent with this objective.

- ***Rivieras Area Plan Objective 5.5.4*** **(***To promote development of agricultural uses and support the continued viability of Lake County's agricultural economy***)**. The Project undermines agri-tourism and agricultural uses, as described herein. The Project is inconsistent with this policy.

- ***Rivieras Area Plan Policy 5.5.4*** (*Development adjacent to incompatible uses shall be designed to provide a buffer in the form of a setback of sufficient distance to avoid land use conflicts between the agricultural use and the non-agricultural use. Such setback or buffer areas shall be established by recorded easement or other instrument that reserves it in perpetuity. A method and mechanism (for example, a homeowner's association or easement dedication to a non-profit organization or public entity) for guaranteeing the maintenance of that area in a safe and orderly manner shall be established, if necessary*). The Project contemplates an industrial land use adjacent to agricultural and agri-tourism uses. The Project undermines and conflicts with those uses. No buffers were proposed. The Project is inconsistent with this objective.

Based on the foregoing, the Project conflicts with both the County's General Plan, as well as the Rivieras Area Plan. The Project thus violates state planning and zoning law. The Project should be denied.

H. Conclusion

For each of the foregoing reasons, the County should not adopt the IS/MND for the Project, and should decline to approve Project. Although my clients believe the Project should fail on its own merits, the Project may not be approved unless the County prepares a full environmental impact report to fully evaluate the numerous potentially significant effects of the Project, and to fully mitigate each of those negative environmental effects.

Respectfully submitted,

John P. Kinsey

Enclosures

Enclosures

Exhibit A: August 14, 2020, *Noise Impacts Report*, Dale La Forest & Associates

Exhibit B: August 13, 2020, *Air Quality Analysis*, Autumn Wind Associates

Exhibit C: August 16, 2020, *Report on Agricultural Impacts of the Red Hills BioEnergy Project*, Clinton Craig Nelson

Exhibit D: April, 21, 2020, Supplemental Project Description

Exhibit E: May 7, 2020, Response to Appeal

Exhibit F: photographs of surrounding area showing proposed location of Project

EXHIBIT A

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NOISE IMPACTS REPORT

Initial Study/Mitigated Negative Declaration for
Red Hills Bioenergy Project
Major Use Permit UP 19-05
Initial Study IS 19-09

Dear Mr. Kinsey:

August 14, 2020

At your request, I have prepared this Report in response to the County of Lake's IS/MND for the Red Hills Bioenergy Project ("Project"). My qualifications are attached hereto as "Attachment 2". This report shows that the Project's noise impacts are potentially significant under the California Environmental Quality Act, Pub. Res. Code § 21000 *et seq*., ("CEQA") and will exceed maximum permissible noise standards set by the County of Lake ("County").

During its operations, the Project would subject nearby homes and businesses to excessive noise levels from its proposed chipper operation, its generators' noise, and its heavy equipment with backup beepers and wood chip delivery truck use of the Project site.

Because operational noise impacts not fully disclosed in the Project's Initial Study will likely exceed applicable significant thresholds under the County's Zoning Ordinance and General Plan, the Planning Commission's approval of an IS/MND is inappropriate per 14 Cal. Code. Regs. § 15000 *et seq.* (the "CEQA Guidelines").

Hence, the County should require the Project applicant to prepare a more demanding CEQA review such as an environmental impact report ("EIR") to consider feasible mitigation measures.

EXECUTIVE SUMMARY

1. CEQA requires this IS/MND to have evaluated if the **magnitude of the increase** in noise levels this Project may create at sensitive receptors by comparison to existing ambient noise levels will be significant. But the IS/MND never examined such increases. The IS/MND does not provide any measurements of ambient conditions at neighboring homes nor evaluates the Project's likely increase in such noise levels. That failure violates CEQA and is important because this Project will generate loud noise level increases at neighboring homes. (See p. 4 of this Report.)

2. The use of **backup warning alarms** during chip truck deliveries and front-end loader operations will create noise levels that will exceed the County's Zoning Ordinance's maximum daytime noise standards at all seven nearest sensitive receptors. (See p. 6)

3. Loud **electrical generator noise** levels will exceed County standards and greatly affect nearby homes, especially at night. The Zoning Ordinance sets a maximum noise level at nighttime of 45 dBA L_{eq}-1 hr. The County's General Plan sets a limit of a *Maximum Allowable Noise Exposure level* of 60 dBA CNEL for "conditionally acceptable" uses at a residential land use. The General Plan also states: "*indoor noise levels for residential uses shall not exceed 45 dBA CNEL.*" This Project however will generate noise levels from just its **generators'** operation that will exceed all of these standards at several homes. When the daytime operations in the chipyard and delivery truck noise are added the generator noise, the total Project noise will exceed these noise limits at other homes nearby. (See p. 10)

4. Constant use of a **loud wood chipper** in this residential neighborhood will produce noise levels that exceed permissible standards. The County Zoning Ordinance prohibits this Project from generating daytime noise levels greater than 55 dBA $L_{eq\text{-}1\ hr.}$ at residences. But just the use of a wood chipper will create noise levels at seven nearby sensitive receptors that will exceed this noise standard and thus violate the Zoning Ordinance. (See p. 20)

5. Operation of the **front-end loader** during Project operations will create noise levels that exceed County noise standards at all five nearest homes. (See p. 24)

6. **Construction-related** short-term noise impacts to neighboring homes will be significant. Site clearing and construction activities could generate serious noise level increases at these homes of potentially 20 to 40 dBA louder than existing ambient noise levels at some homes. (See p. 25)

7. The IS/MND's **noise mitigations are inadequate** because they fail to prevent excessive increases in construction noise and operational noise levels at nearby homes, and because they would allow County planning staff to subsequently approve a new noise study and new noise mitigations without public review, thus violating established CEQA case laws. (See p. 28)

The consequence of the IS/MND's failure to comply with CEQA and to reveal that this Project will likely violate County noise standards is that its approval must be overturned and an EIR be prepared before this Project is allowed to proceed.

Figure A – Map of Noise Sensitive Receptors Near Project Site

IS/MND FAILS TO DESCRIBE LOCATION OF SOME NOISE-SENSITIVE RECEPTORS

To evaluate a project's noise impact on adjacent residents or businesses, an IS/MND must first identify accurately *where* the likely affected sensitive receptors" are located in relation to the Project's noise-generating activities.[1] Typically the location of such noise-sensitive neighbors are indicated on a map in an IS/MND. But this Project's IS/MND does not contain such a map, nor even a text description that accurately informs the public where all these noise-affected sensitive receptors are with their distances to the Project's noisy operations. The Noise Impact section of the IS/MND is only two pages long[2] and has no maps at all.

Of the seven potentially-noise-impacted sensitive receptors in the Project's vicinity, the IS/MND p. 24 only vaguely and even incorrectly mentions the distance to three of them.[3] Onsite **House B** (200 feet) and Onsite **House A** (300 feet) and Offsite **House C** ("about 800 feet") to the southwest of the proposed building. (*See* this Report's **Figure "A"** - *Map of Noise Sensitive Receptors* on the previous page for all seven relevant noise-sensitive receptors.)

But the location of some other likely-noise-affected homes and a nearby commercial office are never described in the IS/MND. By not including these other sensitive receptors, the IS/MND underestimates the extent of this Project's potentially significant noise impacts. These additional locations include:

- One unmentioned nearby **home** (herein labeled **House D**) is located just south of **House C**. It is about 900 feet southwest of the proposed generators according to Google Earth's distance measuring tool.

- Another unidentified **home** (now labeled **House E**) is located above 1,300 feet east of the Project's chipping and biomass storage yard. This house is at 7140 Eagles Nest Lane. Its residents have been adversely affected by previous noisy PG&E wood chipping operations on the Project site, as stated in their emails to planning officials dated February 3, 2020.

- A **travel trailer** is located onsite about 450 feet southeast of the Project's chip yard and biomass storage area. This trailer is mentioned in the IS/MND, but its correct distance to noise-producing activities is not provided there. Nor is any mention made of the amount of Project noise its occupants will be exposed to, including at nighttime when they may be attempting to sleep amidst the loud generator noise that will occur 24 hours per day.

- A **business office** for the Eagle's Nest Self Storage facility is about 1,170 feet east-northeast of this Project's proposed chipping and biomass storage yard.

As will be shown in this Report, these additional unidentified noise-sensitive receptors will likely be significantly impacted by this Project's noise.

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[1] A noise-sensitive receptor is any property where frequent human use occurs and where a lowered noise level would be beneficial to reduce significant noise impacts.

[2] See: *IS/MND*, pp. 24 – 45, Section XIII, Noise chapter of a checklist.

[3] *See: IS/MND* p. 24, where it states: "The "Level 2" housed gen-set would be located on the west side of the building, over 140 feet from Red Hills Road, over 200 feet from the nearest on-site residence, and 800± feet from the nearest off-site residence."

THE IS/MND PROVIDES NO AMBIENT NOISE LEVEL MEASUREMENTS

The County General Plan requires "*project specific acoustical studies for projects where existing or project-related noise levels exceed County noise standards*." [4] This would be such a project because its noise levels would exceed County Noise Ordinance and General Plan noise standards. Part of such a required acoustical study is the assessment of the *"noise environment in the general project vicinity.*" (*See:* General Plan, p. 8-6) To assess the noise environment, ambient[5] noise level measurements are required of conditions near existing homes. But the IS/MND contains no ambient noise level measurements. Nor does it contain an acoustical study. In their absence, this Project is inconsistent with the General Plan and the Zoning Ordinance, § 41.11 Noise.

Conformity with a general plan does not insulate a project from EIR review where it can be fairly argued that the project will generate significant environmental effects. The County's exclusive reliance on specific decibel metrics does not provide a complete picture of the noise impacts that may result from the Project. The setting here includes a quiet rural location and very few homes in the neighborhood. The intrusion of this noisy industrial facility will likely result in a large increase in magnitude in noise levels at these homes. The ambient noise levels at neighboring homes are essentially baselines for comparison to the noise levels that will result from Project activities. For projects like this, CEQA requires ambient measurements. Ambient noise levels in the IS/MND would have allowed County officials or the public to have evaluated the magnitude and significance of the Project's noise level *increases*.

THE IS/MND FAILS TO EVALUATE THE MAGNITUDE OF THE NOISE LEVEL INCREASES

Under Appendix G to the State CEQA Guidelines,[6] a project's noise impact is normally significant if:

- Exposure of persons to or generation of noise levels is in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- A substantial permanent increase in **ambient** noise levels in the project vicinity above levels existing without the project; or
- A substantial temporary or periodic increase in **ambient** noise levels in the project vicinity above levels existing without the project.

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[4] *See*: County of Lake General Plan, p. 8-6, Table 8-2, Noise Implementation Measure 1.0.

[5] Ambient Noise is defined "the all-encompassing noise associated with a given environment, being usually a composite of sounds from many sources near and far. Ambient noise level is the level obtained when the noise level is averaged over a period of at least 15 minutes without inclusion of noise from occasional or occasional and transient sources, at the location and time of day near that at which a comparison is to be made."

[6] California Natural Resources, Appendix G- Environmental Checklist Form, http://resources.ca.gov/ceqa/guidelines/Appendix_G.html Also, the current version of Appendix G for noise impacts, while recently revised, still directs the County to consider if the project's increase in ambient noise levels in the vicinity of the project may be substantial.

Neither the County nor the public can evaluate the Project's noise level increase without having that ambient noise level data. As a result, the IS/MND could not evaluate if there might be a substantial short-term noise level increase during construction or a permanent noise level increase during subsequent operations.

Generally, if a project's operational noise increases the overall noise level at a neighboring residence by 5 dBA or more, that much of an increase is considered by many California agencies and the courts to be a significant noise impact.[7]

But the IS/MND never analyzes how loud the combined noise level will be of this Project's activities when added to the existing noise levels at that neighboring home. Nor does the IS/MND disclose what the ambient noise level at that home currently is. As the result, the IS/MND fails to comply with CEQA because it does not discuss how much of an increase in noise levels at this home will result once the Project begins operating.

Instead, and without credible data or analysis, the IS/MND concludes this Project's noise levels will not exceed the County's allowable noise standards at that neighboring home. But that comparison only to the County's noise limit standards is not consistent with CEQA. The IS/MND should also have examined the magnitude of the noise level increase. The IS/MND fails to explain why the magnitude of the increase in ambient noise levels played no role in determining whether the change would be significant.

In a court decision: *King and Gardiner Farms, LLC v. County of Kern et al* (2020) 45 Cal.App.5th 814, 830, the Court of Appeal ruled:

> "As to the project's noise impacts, the County determined the significance of those impacts based solely on whether the estimated ambient noise level with the project would exceed the 65 decibels threshold set forth in the County's general plan. Based on prior case law, we conclude the magnitude of the noise increase must be addressed to determine the significance of change in noise levels."

This is the same error made in this Project's IS/MND. The IS/MND, on pages 24 – 25, compares the County's maximum noise standards and concludes the Project's noise levels will comply with those standards. Nowhere does the IS/MND consider the magnitude of the Project's noise level increases at nearby sensitive receptors. The IS/MND, p. 24, fails to include any mention of a substantial increase in noise levels triggering its significance criteria.[8] Because the IS/MND is

[7] *See: King and Gardiner Farms, LLC v. County of Kern et al* (2020) 45 Cal. App.5th 814, 892. https://scholar.google.com/scholar_case?case=4251652402952652772
increase in ambient noise levels in the
vicinity of the project in excess of standards
established in the

[8] The IS/MND p. 24 for XIII Noise *Significance Criteria* only states: "The Project would have a significant impact if it temporarily or permanently exceeded local noise standards in the vicinity of the Project, generated excessive groundborne noise or vibration; or would expose people residing or working in the area to excessive noise levels from public airports or private airstrips." The IS/MND p. 24, § XIII, never answers its question, would the project result in: (a) Generation of a substantial increase in ambient noise levels?

seriously flawed in this regard, an EIR must be prepared to evaluate if the magnitude of such noise level increases would be significant.

NOISE IMPACTS OF HEAVY EQUIPMENT BACKUP WARNING ALARMS WOULD SIGNIFICANTLY EXCEED NOISE ORDINANCE STANDARDS

The IS/MND fails to analyze the noise impacts to the neighbors from this Project's heavy equipment backup warning beepers. Such backup alarms are mandated on the haul trucks delivering wood chips and on the front end loader. That noise could be very audible and annoying at some homes near this Project site. As discussed below, noise levels from those backup beepers would be illegal in this setting because they will significantly exceed the County's maximum noise standards at neighboring properties.

Backup alarms are required to protect workers from being run over by heavy equipment. For on-ground workers, it is crucial to detect backup alarm signals as far away as possible rather than at close distances since this will provide them more time to react to approaching vehicles. However the required single-frequency tone used in typical backup alarms is not uniformly loud in all directions. For that reason, alarm manufacturers often make these alarms extra loud to protect their companies from liability as well as to protect nearby workers. Workers also often wear over-the-ear hearing protectors, like ear muffs, to protect their hearing from the loud heavy equipment operational noise. No reasonable worker using the Project's heavy equipment and very loud chipper would work without hearing protection. Such hearing protectors however reduce workers' ability to localize the direction of the backup alarms and move safely out of harm's way. Accordingly they require the alarms be louder than required to provide them an adequate safety margin.

> "The use of these hearing protectors may impair the ability to localize sound, i.e., recognize the direction of the source of the sound.[9] For safety reasons, under industrial conditions, it is vital to be able to correctly localize the noise source, which particularly applies to vehicle back-up alarm signals. Localization enables the user to take action to avoid being hit by a vehicle." [10]

Such backup alarms are typically the loudest equipment used on such wood chipping operations, so it is inexcusable the IS/MND is entirely silent on revealing the amount of their noise impacts.

Backup alarms or beepers are a frequent source of complaints from neighbors, whether they are used during the daytime or nighttime. Backup alarms must generate a noise level at least 5 to 10 dBA above the background noise in the vicinity of the rear of the machine where a person would be warned by the alarm. Thus, they are significantly louder than the Project's proposed

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[9] *See:* Impact of Hearing Protection Devices on Sound Localization Performance, by Véronique Zimpfer and David Sarafian (2004), available online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4052631/ A copy of this document is available to County officials if requested.

[10] *See:* Localization of Vehicle Back-Up Alarms by Users of Level-Dependent Hearing Protectors under Industrial Noise Conditions Generated at a Forge; Int. J. Environ. Res. Public Health 2019, 16, 394; doi:10.3390/ijerph16030394 www.mdpi.com/journal/ijerph A copy of this document is available to County officials if requested.

chip delivery trucks and front end loader equipment's engine noise. Yet the IS/MND fails to describe these alarms' decibel rating. The applicant has not agreed to place specific decibel limits on their loudness. Backup alarms typically produce from 97 to 112 decibels at four feet,[11] which attenuates to about 75 to 90 dBA at 50 feet,[12] and can even be heard at the distances where the surrounding neighbors live. At the noise levels the neighbors will hear, backup alarm noise would exceed the County's maximum limit for *pure tone* noise sources of 49 dBA L_{max} at residential property lines.[13] These backup alarms beep about once per second at a penetrating frequency of about 1,000 Hertz[14] which is designed to be easily heard by most people.

The County's Noise Ordinance, § 41.11(c), seeks to protect residentially-zoned and commercially-zoned property from loud, annoying unusual noise. It limits the maximum noise level for "noises of unusual periodic character," such as noise with a "pure tone" characteristic. A "pure tone" is simply definable as a single frequency sound such as a backup beeper emits. Pure tone noise is unusual and more annoying, and thus the County's Noise Ordinance, with its Table 11.3, sets limits on the median octave band noise levels. Octave Frequency Bands divide the audio spectrum into 10 equal parts. The specific octave band pertinent in this Project's case to backup beeper alarms has a center frequency of 1,000 Hz, and it ranges in frequency from 710 to 1420 Hz. This center frequency of 1,000 Hz is the median frequency of this octave band. According, the County's Table 11.3 limits the maximum sound pressure level for pure tone noise like backup alarms of 1,000 Hz during the daytime (7 a.m. to 10 p.m.) to at most **49 dBA L_{max}** as heard at residential properties beyond the Project site. This limit is a *maximum* allowed noise level, not an average. Unlike other noise standards in the Noise Ordinance, this limit is not complicated by requiring the difficult, logarithmic averaging the source's noise level over an hour. It is therefore simple to measure and to calculate. If the backup alarms would create a pure tone louder than 49 dBA at the property line of any residential property, they would violate the County's Noise Ordinance. It can be readily shown that this Project's backup alarms will greatly exceed that noise level limit at neighboring properties or homes. Their use would also exceed the permissible limit at the neighboring Eagle's Nest Self Storage commercial storage business.

Backup Alarm Noise Levels at Homes "A" and "B" Exceed Noise Ordinance Limits

The nearest home (labeled *House B* on the Site Plan) is on-site and about 200 feet south of this Project's chip yard. The backup alarm noise level at that home would be as loud as about 78 dBA L_{max}, or 29 dBA louder than the County's maximum permitted pure tone noise limit.

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[11] Source of back-up alarm noise levels from alarm manufactured by Pollak, #41-761, "Manually adjustable Back-up Alarm," rated at 112, 107, 97 dB.
Holzman, David C. (2011-01-01). "Vehicle Motion Alarms: Necessity, Noise Pollution, or Both?" available online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018517/
Environ Health Perspect. 119 (1): A30–A33. doi:10.1289/ehp.119-a30. PMC 3018517. PMID 21196143
A copy of this report will be made available to County officials if requested.

[12] Noise level attenuation due to distance is calculated as reduced by about 6 dB for each doubling of distance, and 7.5 dB for each doubling of distance beyond 1,000 feet from the noise source due to atmospheric attenuation.

[13] See Lake County Zoning Ordinance, § 41.11(c).

[14] *See:* "Vehicle Motion Alarms: Necessity, Noise Pollution, or Both?" available online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018517/

That assumes the alarms emit up to 112 decibels as measured at a distance of four feet away.[15] Nothing in the Project Description prohibits the applicant's use of typical backup alarms of that loudness.

The next home (*House A* on the Site Plan) is about 310 feet at the closest from this chip yard. At that distance, the backup alarms' noise levels could be up to 74.2 dBA L_{max}.[16] (Calculated being 6 dB quieter for each doubling of distance.) That noise level would also be illegal because it could be about 25 dB louder than the County's maximum pure tone noise limit of 49 dBA.

Backup Alarm Noise Levels at Homes "C" and "D" Exceed Noise Ordinance Limits

The nearest off-site homes are located to the southwest of the Project chip yard by about 720 feet (House C) and about 900 feet (House D). (See Figure A, Map of Noise Sensitive Receptors Near Project Site on page 3 of this Report). These distances are estimated using Google Earth's measuring tool.

As discussed above, a single backup warning beeper emitting 90 dBA at 50 feet could be as loud as 66 dBA at a home **720** feet away at **House C**. **Noise levels there of 66 dBA L_{max} could be 17 dBA greater than County's maximum pure tone limit of 49 dBA L_{max}**. (See Figure A for location of House "C") At this House C's nearest property line where the Noise Ordinance applies about 650 feet away, the backup alarms would be even louder.

At **House D** located about 900 feet from the chip yard, the backup beeper noise level could be as loud as nearly 65 dBA L_{max}. That back up alarm noise level at House D would exceed the County's maximum pure tone noise level standard of 49 dBA L_{max} by about 16 dB.

Backup Alarm Noise Levels at House "E" Exceeds Noise Ordinance Limits

Another home exists about 1,300 feet to the east of the Project's chip yard, (see Figure A, House E). At that **House E**, such backup beepers operated in the chip yard could create noise levels of up to about 60.4 dBA L_{max}.[17] Even if the intervening ground is assumed to be "soft" with a greater drop-off rate over that distance of 7.5 dB per doubling of distance, the resulting noise level of about 53.3 dBA L_{max} would still exceed the County's maximum pure tone noise limit of 49 dBA.[18]

Backup Alarm Noise Levels at Adjacent Eagles Nest Self Storage Office Exceeds Noise Ordinance Limits

[15] Calculation: $dB_2 = dB1 – 10 \times A \times LOG(R_2/R_1) = 112 – 10 \times 2.0 \times LOG (200' / 4') = 78.0$ dBA

[16] Calculation: $dB_2 = dB1 – 10 \times A \times LOG(R_2/R_1) = 112 – 10 \times 2.0 \times LOG (310' / 4') = 74.2$ dBA

[17] Calculation: $dB_2 = dB1 – 10 \times A \times LOG(R_2/R_1) = 112 – 10 \times 2.0 \times LOG (1,300' / 4') = 61.7$ dBA; however at a distance of 1,300 feet, atmospheric attenuation could reduce that noise level by approximately 1.3 dBA, resulting in a noise level at that home of about **60.4 dBA L_{max}.**

[18] Calculation: $dB_2 = dB1 – 10 \times A \times LOG(R_2/R_1) = 112 – 10 \times 2.5 \times LOG (1,300' / 4') = 54.6$ dBA. Then with a reduction due to atmospheric attenuation of 1.3 dB over 1,300 feet, that would result in **53.3 dBA L_{max}**.

Even the commercial office to the northeast of the Project's chip yard could be exposed to excessive noise from these backup beeper alarms. The Eagles Nest Storage company's office building is located about 1,170 feet from the Project's chip yard. The County's Noise Ordinance § 41.11 however establishes its Table 11.3 and Table 11.4 decibel limitations even closer at the western property line of this commercial property, and that property line is only about 700 feet to the east of the chip yard. For commercial properties exposed to loud noise, the Noise Ordinance Table 11.4 adds 5 dB to the 1000 Hz median octave band noise level limitation of 49 dB, and therefore limits these backup alarms generating pure tones to at most 54 dBA L_{max}. But at 700 feet, such alarms might emit noise levels up to 67 dBA L_{max}, thus exceeding that limit by 13 dB. Even at the actual commercial office building about 1,170 feet away, that backup alarm noise level could reach about **61 to 62 dBA L_{max}** depending upon atmospheric absorption. That pure tone noise level of at least 61 dBA L_{max} would exceed the County's commercial noise level limit of 54 dBA L_{max} by about 7 dB.

Conclusion about Backup Alarm Noise Impacts

As shown above, there are five homes (labeled A, B, C, D and E on **Figure A** on page 3 of this Report) and a commercial office where this Project's backup alarms could generate noise levels that exceed the County's Noise Ordinance maximum permissible standards. Such calculated exceedances present a fair argument of significant noise impacts at those homes and nearby office. Such a potential violation of the Noise Ordinance must be evaluated in a subsequent environmental study in order to be consistent with CEQA.

ELECTRICAL GENERATOR NOISE LEVELS WILL EXCEED COUNTY STANDARDS AT NEARBY HOMES

What resident of a quiet rural residential neighborhood would want to have his or her home exposed to loud industrial noise that would continue non-stop for 24 hours every day? But this is exactly what will occur with this Project's two loud electrical power generators. Their noise levels will even violate the County's noise standards during day or night unless major changes are made.

The County of Lake Noise Ordinance, in Section 41.11, Table 11.1, sets a *nighttime* maximum one-hour equivalent sound pressure level of **45 dBA L_{eq}-1 hr.** for residential property exposure. This noise standard could be exceeded at nighttime at several homes just by operation of the Project's two generators as summarized here, and explained in greater detail below:

- As shown below, the noise emissions from the generators when calculated at **House B** would be about **65.4 dBA** L_{eq}-1 hr. That noise level exceeds the Zoning Ordinance's maximum allowed *nighttime* standard of 45 dBA L_{eq}-1 hr.

- At **House A**, about 570 feet from the generators, it would be exposed to *nighttime* noise levels of about **58.2 dBA** L_{eq}-1 hr., in excess of the Zoning Ordinance standard.

- At the onsite existing **Travel Trailer** site about 690 feet from the proposed generators, its noise exposure during any nighttime hour if doors are open would be about **56.5 dBA** L_{eq}-1 hr., also exceeding the Zoning Ordinance maximum-allowed 45 dBA L_{eq}-1 hr.

standard. If the metal building's doors are shut, that generator noise level might be 10 dB less due to the building's barrier effect, resulting in a noise level at the travel trailer of about **46.5 dBA L_{eq}-1 hr**. That too would exceed the County's nighttime noise standard.

- Even at the offsite **House C** located about 720 feet southwest of the proposed generators, its exposure to generator noise at nighttime would exceed this Zoning Ordinance maximum noise standard. At that distance, the generator noise would diminish to about **56.2 dBA** L_{eq}-1 hr., and would exceed the County's maximum of 45 dBA L_{eq}-1 hr.

A project that would generate noise levels in excess of local noise standards is considered to create a significant noise impact. The IS/MND never evaluates the generator's compliance with the County's Noise Ordinance though. Instead, the IS/MND substantially underestimates how much noise the Project's two generators will produce. The information from the applicant as presented to the Planning Commission describes a generator noise level of **79 dBA** when measured at a distance of 23 feet. That estimation is significantly flawed for these reasons:

Applicant Underestimates Generator Noise

The IS/MND does not state how loud the Project's two generators will be. Instead, in a revised *Supplementary Project Description* released after the close of the comment period on the IS/MND and not included as part of the Project Description, the applicant claims its generators will produce noise levels of "79 dBA at a distance of 23 feet." [19] But according to the applicant's submitted product specifications,[20] that decibel rating is actually **83 dBA at 23 feet**, and it is for only one generator. Moreover, the Project proposes two generators that will both operate at the same time for 24 hours per day. The combined noise levels they both would emit could be over 3 dB louder on average, which would be **86.1 dBA at 23 feet.** That difference of over 7 dBA in noise levels between the applicant's claim and the actual data for two generators is significant. Calculation:

> Sound levels in decibels are logarithmic values that cannot be combined by normal algebraic addition. Instead, the sound levels in decibels are first converted to energy equivalents, the energy equivalents are added algebraically, and the total energy equivalent is converted back to its decibel values.
>
> Calculation: $L = 10 \times \text{Log}_{10} (10^{8.3} + 10^{8.3}) =$ ***86.1 dBA*** for 2 generators
>
> This cumulative result of 86.1 dBA can alternatively be verified using this online decibel addition calculator: http://www.sengpielaudio.com/calculator-spl.htm

Applicant's Specifications Underestimate Neighboring Noise Exposure Because They Are for *Average* Noise Levels, Not *Maximum* Levels as used by County Noise Standards.

The Applicant's possible reliance upon a generator noise level of 83 dBA is apparently only an *average* noise level stated by the manufacturer. But these generators are louder in some

[19] *See:* Scotts Valley Band of Pomo Indians' *Supplementary Project Description*, 04/21/2020, p. 2, for this claimed noise level of 79 dBA at 23 feet distance. Nothing in the IS/MND supports that claim of 79 dBA at 23 feet.
[20] *See:* IS/MND PDF p. 127, which specifies that an Gillette Generator Model T4D-1500 when equipped with a "Level 2 Critical Silencer" (an enclosure) will emit 83 dBA when measured at 23 feet on average during normal operations.

directions compared to their *average* noise level. For example, noise emits to a greater extent from the generators' exhaust ports which are located on one side of their enclosures. That is a similar phenomena to the noise level many automobiles emit being louder at the rear by their exhaust pipes. Because the IS/MND is tasked with analyzing how much noise neighboring homes may be exposed to, it must consider the *maximum* noise emissions that will be greater in directions toward some homes and not the others. The IS/MND fails to do that.

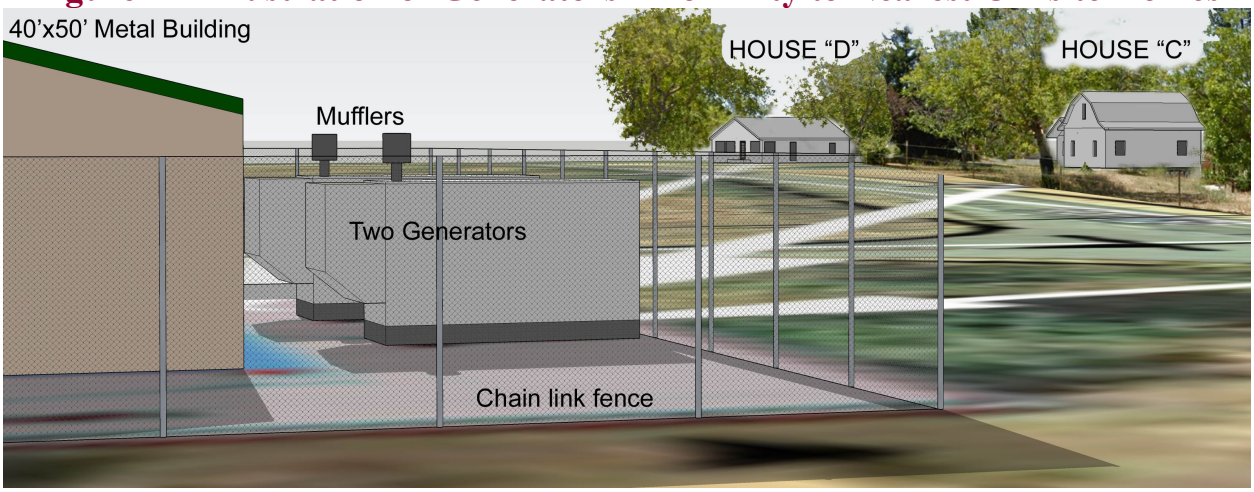
Even the placement of two noisy generators immediately west of the proposed metal building does not guarantee their combined noise emissions will be uniformly distributed or adequately silenced at nearby homes.

There is no evidence in the IS/MND to support its claim that generator noise will not exceed the County's noise standards at residences. The IS/MND provides no calculations of that claim. Besides, there are other applicable noise standards that CEQA requires be evaluated. As discussed above, those include increases in ambient noise levels, not just the fixed noise level standards that Lake County has adopted.

Calculation of Generator Noise Levels at Nearby Homes

One of this Project's most significant noise impacts will occur from the 24-hour per day operation of the two diesel-powered electrical generators as heard at some nearby homes. The IS/MND fails to accurately disclose that significant noise impact. The IS/MND, p. 4, "Site Plan," shows the two "Level-2" aluminum-housed Gen-Sets proposed to be located outside the metal building on its west side and with direct line-of-sight to some off-site residences, as illustrated here:

Figure B – Illustration of Generators' Proximity to Nearest Off-site Homes



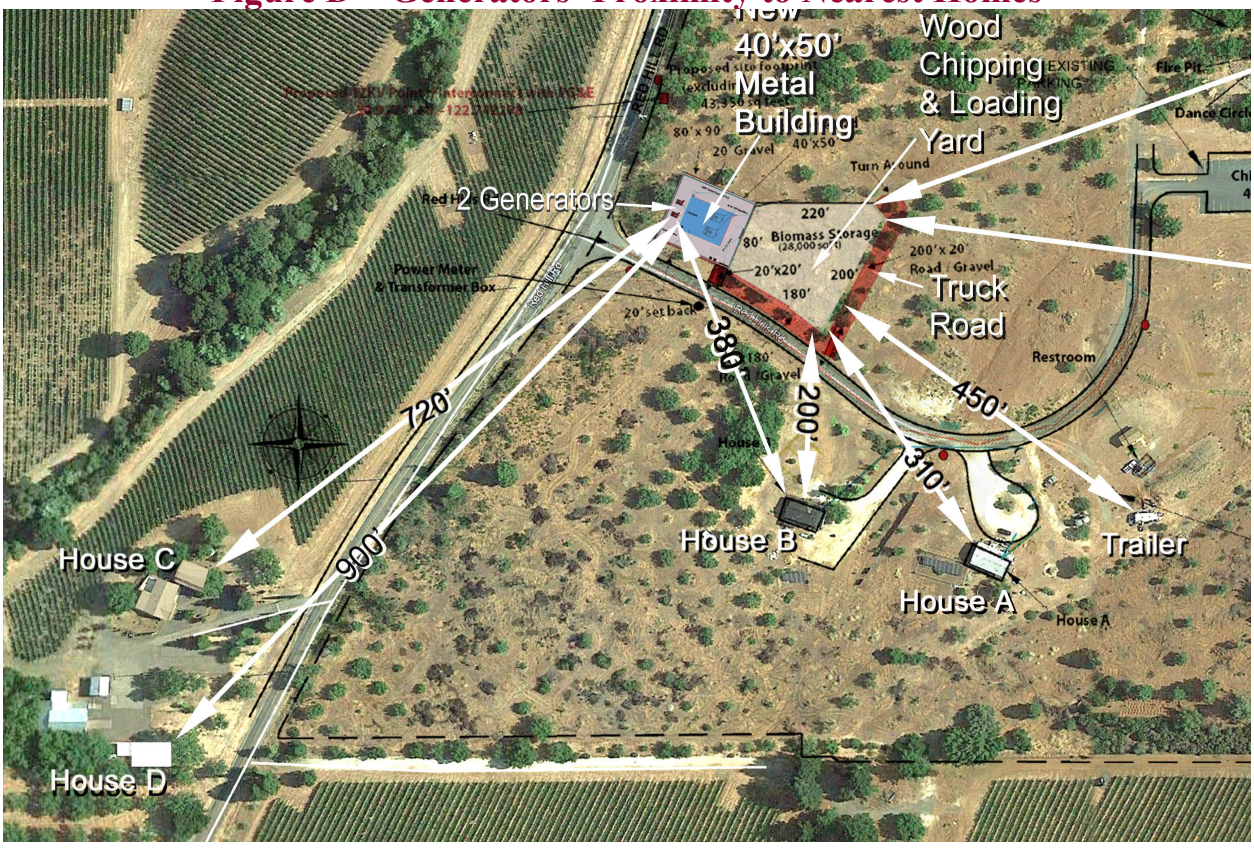
An engine-generator is the combination of an electrical generator and a diesel engine mounted together to form a single piece of equipment. The two engines specified for this Project's generators are much like trucks' six-cylinder 470 cubic-inch, 252-horsepower diesel engines. This combination is also called an engine-generator set or a **gen-set** as referenced in the Project's IS/MND. In many contexts, the engine is taken for granted and the combined unit is simply

called a generator. In this Project's case, this engine-generator grouping would be a fixed installation with two separate gen-sets located outside the west wall of the proposed Production Plant 40' x 50' metal building. (See IS/MND, p. 4: Site Plan) These gen-sets would be housed in aluminum enclosures with vents and external diesel engine mufflers. Most important, they could be loud, especially at nighttime when compared to the quiet the neighbors currently experience.

Distances in IS/MND from Project Generators to Nearby Homes are Incorrect

The IS/MND is vague about the locations and distances of the nearby homes from this Project's noise-generating construction activities and operations. Accordingly, assuming a reasonable worst case location as described below, the Project's noise impacts to these sensitive receptors would be potentially significant. For example, the IS/MND describes the proposed Generators being about 800 feet from the nearest off-site residence (House C), but Google Earth's measurement tool shows a distance of about 720 feet there.[21] That difference is significant because generator noise could be about **1 dB louder** at that **House C**'s closer distance, and a 1 dB loudness error might make the difference between complying with County standards or not complying. The IS/MND provides no accurate distances from this Project's two generators to other nearby homes that will also be exposed to this excessively-loud generator noise (i.e., Houses A, C, and D).

Figure D – Generators' Proximity to Nearest Homes



[21] *See:* **Figure A – Map of Noise Sensitive Receptors Near Project Site**, on page 3 of this Report. See also **Fig. D** on this page above for enlargement of that map.

Figure E – Plan View of Generators (Gen-Sets) and Metal Building on Project Site

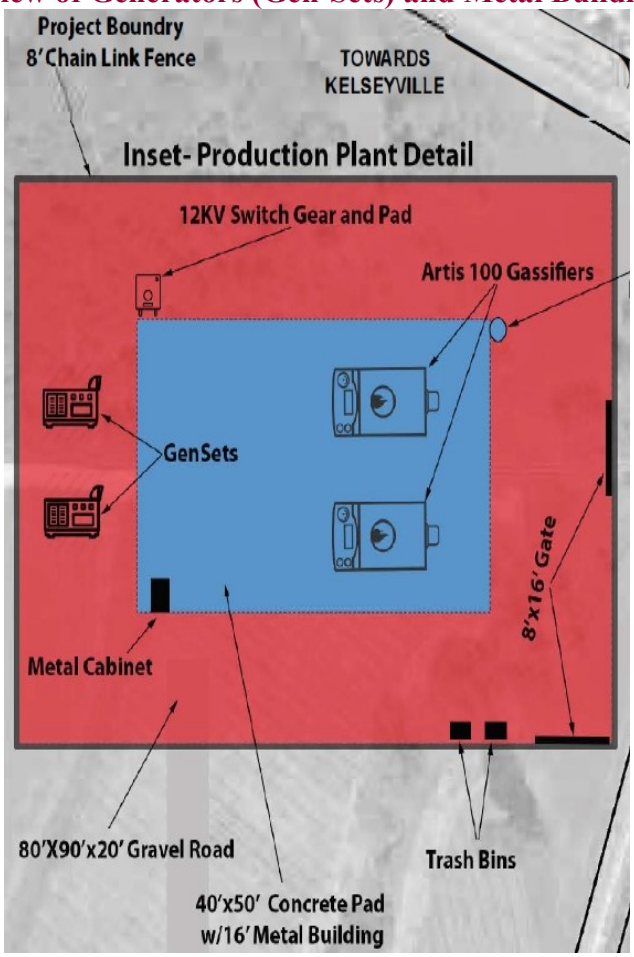


Figure F – Examples of Generators (Gen-Sets) to be Located Outside of 16' Metal Building

Generators' Noise Level at Nearest On-site House "B" Would Exceed County's Noise Standards

The nearest on-site homes may be partially shielded from direct line-of-sight of the two generators proposed on the west side of the new metal building. However, **House B** will have a line-of-sight to at least one of the generators according to the applicant's Site Plan drawings.[22] Also, if both 18-foot wide roll-up doors on the proposed metal building are open, those large openings will allow some direct transmission of generator noise to other on-site dwellings.

Without initially considering the metal building's partial attenuation factor due to its walls, combined generator noise emissions of more than 86.1 dBA L_{eq} would be reduced by the approximate 380 feet[23] of distance to the nearest on-site home (**House B**) to about **61.7 dBA L_{eq}**.

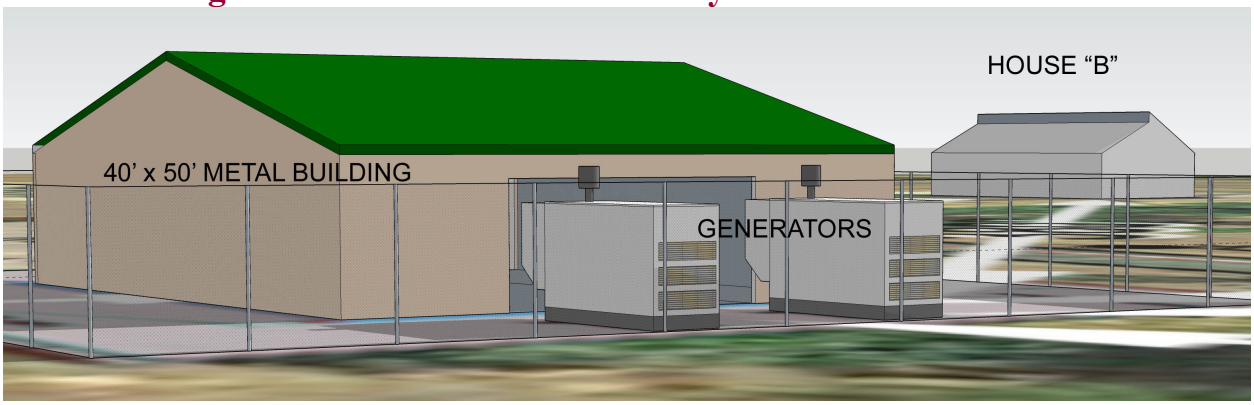
To calculate a dB level at different distances from a source given a known dB level for a known distance:

$dB_2 = dB_1 - 10 \times A \times LOG(R_2 / R_1)$ where:
LOG = logarithm, base 10,
A = dB drop-off rate coefficient (in this Project's case, a = 2.0 for a 6.0 dB drop-off rate (point source, no atmospheric absorption).)
dB_1 = dB level at know distance from source, R_1
dB_2 = dB level at another distance from source, R_2
R_1 = known distance from source for known decibel level dB_1
R_2 = second distance from source for which known decibel level estimate (dB_2) is desired

In this case, at a location where a home is 300' (R_2) from the proposed metal building, where the combined noise levels of two generators would be about 86.1 dBA L_{eq} at 23 feet:

dB_1 = 86.1 dBA at 23' (R1) from the generator building,
$dB_2 = dB1 - 10 \times A \times LOG(R_2/R_1) = 86.1 - 10 \times 2.0 \times LOG(380' / 23') =$ **61.7 dBA**

Figure G – Generators' Proximity to Nearest House "B"



The 40' x 50' metal building at most will only shield a direct line-of-sight to one of the two generators. Sound waves also bend around objects rather than travel in straight lines, so noise

[22] *See:* IS/MND p. 114, Attachment 1, including "Inset - Production Plant Detail"; see also Figure B - Generators' Proximity to Nearest House "B" above on page 12 of this Report

[23] The IS/MND states these generators will be located over 200 feet from the nearest home on the property. A distance of approximately 380 feet between the nearest generator and the nearest home (House B) is obtained using Google Earth's measurement tool. *See:* **Figure A – Map of Noise Sensitive Receptors Near Project Site.**

emitting from the tall gen-set diesel engine mufflers will tend also to go over the building's roof toward onsite homes. A light-weight metal building wall also does not have sufficient mass to block all noise transmission through the wall. Some generator noise will be transmitted through the building, especially if the doors or other ventilation openings are not closed. If half the acoustical energy of these two gen-sets is blocked by the metal building, the generator noise level that reaches **House B** would be about 3 dBA less, or **58.7 dBA L_{eq}-1 hr**. (61.7 – 3.0 = 58.6 dBA L_{eq}.) This is generator noise that will occur 24-hours per day.

That noise level of **58.7 dBA L_{eq}-1 hr** as measured at **House B** would greatly exceed the County's *nighttime* noise standard of 45 dBA. That exceedance of more than 13 dBA would be very significant. Generator noise would also exceed the County's *daytime* noise standard of 55 dBA, not even including any of the other daytime operational noisy activities such as trucking, chipping and loading wood chips. Therefore these two generators as proposed would likely create a significant noise impact at **House B**.

Generators' Noise Levels at On-site House "A" and Travel Trailer Would Exceed County's Noise Standards

This generators' noise levels would be excessive at *nighttime* also for onsite **House A** and the **Travel Trailer** located nearby.

1. The **Travel Trailer** would be about 690 feet from the two generators. At that distance, not considering the sound attenuation the metal building would provide, the travel trailer could be exposed to generator noise at nighttime of about **56.5 dBA $L_{eq-1\ hr}$.**

Calculation: $dB_2 = dB1 – 10 \times A \times LOG(R_2/R_1) = 86.1 – 10 \times 2.0 \times LOG\ (690' / 23') =$ **56.5 dBA**

That is a noise level that would significantly exceed the nighttime 45 dBA $L_{eq-1\ hr}$. noise limit of the County's Noise Ordinance. If the metal building's two exterior 18-foot wide roll-up doors are open, much of that generator noise would travel through the building directly southeast toward that travel trailer without much attenuation. Even if the building with closed doors reduced such generator noise by 10 dB, the resulting 46.5 dBA L_{eq}-1 hr. at the travel trailer would exceed the County's nighttime noise standards.

2. The **House A** located at about 570 feet from the generators would be exposed to nighttime noise levels during generator operations of about **58.2 dBA $L_{eq-1\ hr}$**. That noise level would also exceed the County's 45 dBA L_{eq}-1 hr. nighttime noise level limitation. If the metal building acting as a barrier reduced the generator noise level transmission by 10 dBA, **House A** would be exposed to about 48.2 dBA L_{eq}-1 hr. of generator noise. That too would exceed the County's nighttime noise standard of 45 dBA L_{eq}-1 hr.

Calculation: $dB_2 = dB1 – 10 \times A \times LOG(R_2/R_1) = 86.1 – 10 \times 2.0 \times LOG\ (570' / 23') =$ **58.2 dBA**

The IS/MND does not disclose these unacceptable noise level standard exceedances. Every neighbor has the right to peace and quiet, or at least as much as the County's noise standards provide. The IS/MND never considers how loud these generators will be when operating 24 hours a day as heard at these onsite residences. The County's noise standards apply even at a closer distance than 380 feet to the exterior walls of the nearest home. The standards apply at the property lines of off-site homes so the occupants can enjoy outdoor activities near their homes.[24] The Project noise just from generator operations would be excessive therefore even for outdoor activities at these onsite sensitive receptors.

Generator Noise Level at Nearest Off-site Home ("House C") Exceeds County's Noise Standards

The nearest off-site home on Red Hill Road (**House C**) is located about 720 feet to the southwest of the two outdoor generators proposed adjacent to the west side of the Project's metal building. As shown above, their combined noise levels would be at least and possibly more than 86.1 dBA at a distance of 23 feet. That is an average noise level calculated in all directions around a gen-set, but it may actually be greater depending upon which way the gen-sets are positioned. The IS/MND does not describe if the ends of the gen-sets' aluminum housings with their unenclosed mufflers raised above their housings and exhaust stacks and their cooling exhaust vents will be facing the nearest off-site homes. If so, these gen-sets may emit a noise level greater than 86.1 dBA at 23 feet in that direction.

At the nearest off-site home (**House C**), the noise level of both gen-sets would diminish by that 720 feet distance to about **56.2 dBA L_{eq}** (or more, depending upon orientation of gen-sets). Calculation:

$$dB_2 = dB1 - 10 \times A \times LOG(R_2/R_1) = 86.1 - 10 \times 2.0 \times LOG\ (720' / 23') = \mathbf{56.2\ dBA}$$

Even if this house is 800 feet away, the combined gen-sets' noise level would calculate to about 55.3 dBA L_{eq}. That result is derived from the same calculation using the different distance.

That generator noise level of either 56.2 or 55.3 dBA L_{eq} at **House C** would therefore exceed the County's maximum 45 dBA *nighttime* noise standard. That noise level would even exceed the County's *daytime* noise standard of 55 dBA. And depending upon the two gen-sets' orientations, their combined noise level at this home might be greater yet. Additionally, the County standards apply at this home's property line, not just the actual home distance as calculated above, so at that closer distance to the property line the gen-sets' noise levels would be slightly louder yet. Furthermore, the metal building exterior metal wall would tend to reflect some of the generator noise toward these two homes increasing their noise exposure even more. Exceeding both of the County's maximum *daytime* and *nighttime* noise levels at **House C** indicates this Project's generator operations would create a significant noise impact.

[24] As the IS/MND states: "County noise standards require noise levels **at the property line adjacent to residential** and agricultural uses (west, south and east) not to exceed 55dBA between the hours of 7:00 a.m. and 10:00 p.m. and 45 dBA between the hours of 10:00 p.m. and 7:00 a.m."

Generator Noise Level at Second Nearest Off-site Home ("House D") Also Exceeds County's Noise Standards

At the second nearest off-site home (**House D**) about 900 feet southwest of these generators along Red Hill Road, the combined noise level of both gen-sets would diminish by that 900 feet distance to about **54.2 dBA L_{eq}** (or more, depending upon orientation of gen-sets and the location of this home's nearest property line).

Calculation:

$$dB_2 = dB1 - 10 \times A \times LOG(R_2/R_1) = 86.1 - 10 \times 2.0 \times LOG\ (900' / 23') = \mathbf{54.2\ dBA}$$

That combined generator noise level of **54.2 dBA L_{eq}** at **House D** would therefore exceed the County's maximum 45 dBA *nighttime* noise standard. That noise level is so close to 55 dBA that it might also exceed the County's maximum *daytime* noise standard of 55 dBA L_{eq} even without adding the other daytime noise-producing Project activities. Therefore **House D** would be exposed to excessive generator noise levels at *nighttime*, and excessive *daytime* Project noise (generator noise plus the daytime operations of trucking, grinding, and loading activity noise). Exceeding both *daytime* and *nighttime* noise levels at **House D** indicates this Project's combined operations would also have a significant noise impact.

Generator Noise Will Likely Create a Significant Noise Impact by Raising the Existing Ambient Noise Levels at the Two Nearest Off-Site Homes by More Than 5 dBA.

CEQA also requires the County to evaluate the magnitude of the noise level increase the Project might create compared to ambient noise levels at these homes without any Project operations. The IS/MND fails to do that. If just the generator noise levels at these homes is more than 5 dBA louder than the ambient noise levels in either the daytime or nighttime, that Project-related noise level increase would be considered to create a significant noise impact.[25] The IS/MND provides no ambient noise level measurements at these homes (House C and House D). But it is highly unlikely that at any hour during the nighttime the existing ambient noise level either home is never lower than 49 dBA $L_{eq\text{-}1\ hr}$. Typically in such rural locations in the wee hours of nighttime the ambient noise level will drop to less than 40 dBA $L_{eq\text{-}1\ hr}$. Yet this Project's nighttime generator noise levels at these two homes will likely exceed 54.2 dBA, representing much more than a 5 dBA noise level increase compared to the likely 40 dBA L_{eq} or less noise level at some nighttime hours. For that matter, it is also likely that such generator noise will increase the daytime noise levels at these homes compared to ambient conditions by more than 5 dBA. This too is evidence this Project's generators during the nighttime and maybe the daytime will create significant noise impacts at these two homes.

[25] As described above, a project's 5 dB increase in noise levels compared to ambient conditions is typically considered to create a significant noise impact. *King and Gardiner Farms, LLC v. County of Kern et al* (2020) 45 Cal.App.5th 814, 892.

GENERATOR NOISE LEVELS WOULD EXCEED COUNTY'S GENERAL PLAN 24-HOUR DAYTIME NOISE STANDARDS AT THE NEAREST ON-SITE HOME.

At **House B**, located about 380 feet from the proposed generators, its nighttime noise exposure to generator noise could be about **58.7 dBA $L_{eq\text{-}1\ hr}$**. as calculated above. Because the generators would operate 24-hours a day, their noise level can result in a weighted day-night average noise level of **65.4 dBA CNEL** at **House B**.[26] That noise level is just for generator operations and does not include chipping, trucking and loading noise.

That noise level would exceed the General Plan's "Maximum Allowable Noise Exposure" level of 60 dBA CNEL for "conditionally acceptable" uses at a residential land use.[27] To put an end to all question about acceptability, when the noise levels of *daytime* Project operations of chipping and trucking are added to the 24-hour/day generator noise levels, their combined CNEL noise level would greatly exceed 65.4 dBA CNEL. Under such circumstances, the General Plan defines this Project to be unacceptably noisy because of its proximity to those existing on-site dwellings.

> "Normally Unacceptable. New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded." (General Plan, Table 8-1)

At **House B**, that cumulative exterior noise level of **65.4 dBA CNEL** or more from just the generators' use could result in an excessive interior noise level as well as described below.

GENERATOR NOISE LEVELS WOULD EXCEED INTERIOR GENERAL PLAN NOISE STANDARDS FOR OCCUPANTS OF SEVERAL NEARBY HOMES.

Noise from the generators alone, even without any chipping or heavy equipment use, could create excessive interior noise levels for both onsite homes. The County's General Plan Noise Element Policy N-1.3 on page 8-4 states that "*indoor noise levels for residential uses shall not exceed **45 dBA CNEL***." But at **House B**, its interior noise exposure level with open windows would be in excess of that noise limit. With an exterior noise level of **65.4 dBA CNE**L at

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[26] The General Plan, p. 8-1, defines: "*Community Noise Equivalent Level (CNEL). Used to characterize average sound levels over a 24-hour period, with weighting factors included for evening and nighttime sound levels*." To account for greater noise sensitivity in the evening from 7 p.m. to 10 p.m., noise levels in this weighted averaging calculation are increased by 5 dB. And during the nighttime from 10 p.m. to 7 a.m., noise levels are increased by 10 dB. The General Plan Table 8-1, *Maximum Allowable Noise Exposure by Land Use,* defines residential noise exposure at single family homes greater than 60 dBA CNEL to be "*normally unacceptable*."

Calculation of CNEL where generators emit 58.7 dBA L_{eq} for 24 hours per day: **CNEL = 65.4 dBA**; See https://www.noisemeters.com/apps/ldn-calculator/ for online calculator of "Lden" (which is CNEL) day-night weighted noise level. Or use this formula from the CalTrans Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013, page 2-53, Formula 2-24 found online at: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf

CNEL$=10\log_{10}[(1/24)x\{ (10^{(58.7+10)/10}x\ 9\ hrs)+(10^{(58.7)/10}x\ 12\ hrs)+(10^{(58.7+5)/10}x\ 3\ hrs)\}] =$ **65.4 CNE**L

[27] General Plan Noise Element p. 8-3, Table 8-1.

House B's windows, and with an attenuation factor of 10 dBA due to noise passing through the walls and roof of a home with open windows, the interior noise level there would be as much as about **55.4 dBA CNEL**. (65.4 – 10.0 = 55.4 dBA) Even with the windows closed at **House B**, assuming a 20 dBA transmission loss from exterior to the interior, that generator noise level when measured indoors might still exceed the County's 45 dBA CNEL maximum standard.

Similarly, at **House A** located about 570 feet from the generators, its windows could be exposed to exterior noise levels just from generator operation of 48.2 dBA L_{eq}-1 hr. That assumes the metal building's 18-foot wide doors are closed and the building as a barrier reduces noise transmission by 10 dBA. When converted to a day-night average noise level for all 24 hours of generator operation, the exterior of House A could be exposed to 55.0 dBA CNEL. Calculation:

$$\textbf{CNEL}=10\log_{10}[(1/24)x\{(10^{(48.2+10)/10}x9\text{ hrs})+(10^{(48.2)/10}x12\text{ hrs})+(10^{(58.2+5)/10}x3\text{ hrs})\}] = \textbf{55.0 CNEL}$$

With open windows where exterior noise levels are quieted by about 10 dB on the interior, that home's interior noise level could be as high as about 45.0 dBA CNEL. If the metal building's doors are open any time in that 24-hour day, this generator noise level measured in the interior of House A could be in excess of the General Plan's 45 dBA CNEL maximum standard. When other Project noise such as chipping, trucking and loading activities is considered, the interior rooms of **House A** would be exposed to even more noise than allowed by County standards. Such excessive interior noise can interfer with sleep, speech and other activities even during daytime hours.

USE OF JUST THE WOOD CHIPPER WILL CREATE NOISE LEVELS IN EXCESS OF ZONING ORDINANCE'S 55 dBA L_{EQ}-1 HR. DAYTIME MAXIMUM STANDARDS.

The IS/MND (PDF pp. 24 & 119) describes and the Planning Commission approved the use of a diesel-powered wood chipper onsite at this Project's outdoor biomass storage yard. Yet nowhere does the IS/MND describe how loud this wood chipper's use will be. Calculations below will show that the chipper noise levels will be so loud that they will violate the County's noise standards at all seven sensitive receptors mentioned in this Report.

Nor does the IS/MND as approved by the Planning Commission actually regulate where in the storage yard this chipper can be used. Wood chippers can be extremely loud, especially for residents living just several hundred feet away. The IS/MND is inadequate for failing to describe how loud the chipper's use may be. As will be shown below, the wood chipper's use may create noise levels so loud that they can exceed the Noise Ordinance's maximum one-hour **55 dBA L_{eq}-1 hr.** during a daytime hour at any of the seven sensitive receptors studied in this Report. That includes at **House E** located about 1,300 feet east of the Project's wood chipping and storage yard; those residents have previously complained about excessive noise from wood chipping on this same Project site.

In the applicant's revised *Supplementary Project Description* released too late for the CEQA minimum 30-day public review, a 6–inch secondary chipper is vaguely proposed that "*operates at approximately 100 dBA*." No other information was submitted about its noise level. That claimed approximate 100 dBA noise level is essentially meaningless because there is no stated

distance from the chipper where that measurement is assumed. Without such a distance in the noise specification, it is impossible to predict how loud that chipper would be at a different distance when measured near the surrounding sensitive receptors.

Chipper Location and Noise Impact Consequences Are Uncertain

The applicant suggested some additional chipper noise limitations in its *Supplementary Project Description* but those may turn out to have no benefit whatsoever to neighbors. The public was not given adequate time to consider those last moment changes either. It is unclear if those conditions were even formally imposed upon the Project. These suggested changes include:

> *"The chipper's operating location has been revised to be placed within 10 feet of the east side of the building vs the original concept of working in the storage yard."*
>
> *"The chipper will be placed between the fence and the building with both acting as sound attenuation media."*

But if a chipper is located only 10 feet from a 10-foot high, 40-foot wide metal building wall, the building's large metal wall will reflect and thus essentially amplify the chipper's noise in that generally-eastward direction. Existing **Houses A, B, E** and the **Travel Trailer** will therefore be exposed to even greater chipper noise emissions than if the chipper was not next to that metal building's east wall. Reflected noise can be perhaps 2 dBA greater than when a reflective wall is not present.[28] The IS/MND never evaluates such a probable noise reflection consequence because the applicant suggested this change after the IS/MND was circulated.

In its May 7, 2020 Response to Appeal, p. 6 to help reduce chipper noise impacts, the Project applicants are vaguely proposing, "*if necessary*," to possibly use portable fencing and acoustical absorption blankets. But the applicants provide no specifications about the fencing, acoustical blankets or their location. It is unlikely that such fencing will have any effect if the chipper is located close to a 10-foot high metal building where reflected sound waves could easily pass over a fence unimpeded by the fence's height. So that vague suggestion by the applicants has no merit in ensuring adequate chipper noise attenuation. It also suffers from the legal defect of an improperly deferred mitigation measure chastised in the appellate court's decision in *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307 as discussed below. Any subsequent noise reduction method the applicant might implement unannounced or negotiate with County staff when no specific performance criteria have been publicly agreed to does not comply with CEQA.

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[28] "In contrast to the effects mentioned above, reflection can increase noise intensity. For instance, if a wall were erected along one side of a road or train track, the noise energy reflected by the wall would be additive to the noise energy reaching a receiver directly from the source. The size of the additive effect would depend on the characteristics of the wall and on the relative locations of the source, the wall and the receiver. If the wall were very long, very high, very flat, non energy-absorptive and continuous, if the road or track were long and straight, and if there were no air/ground absorption and path interruption effects, the resultant noise intensity at a receiver location could be much as 3 dB higher than it would have been without the wall. This maximum 3 dB noise enhancement would be experienced at locations far from the road or track; at closer points, the increase would be less." Source: http://www.city.palo-alto.ca.us/planning-community/documents/PTOD%20Noise%20Report.pdf

The Project applicants in their *April 21, 2020 Supplementary Project Description* on page 2 also proposed another new noise mitigation. The applicants propose to locate the chipper:

> "*an additional 1,000 feet from the tub grinder site or a total of not less than 1,800 feet from the eastern property boundary. This additional distance will further reduce the noise level demonstrated in the tub grinder's operation.*"

This mitigation makes no sense and thus is unenforceable. The Project site itself is hardly more than about 1,800 feet wide (from east to west) at its southern property line. There appears to be no location on the entire site where the chipper could be placed where it would be "*not less than 1,800 feet from the eastern property boundary."*

That proposed new mitigation also seems to indicate that a tub grinder may also be located somewhere on this Project site.[29] No location for that tub grinder is shown in the IS/MND so its noise impact cannot be accurately predicted. That may not be necessary though at this time since even the location of the smaller and quieter chipper would exceed the County's noise standards at the sensitive receptors. If the tub grinder will indeed operate on this Project site, its noise impact can be cumulatively considered in an EIR. If the tub grinder will instead be operated somewhere off-site, then the IS/MND is inadequate because it has not indicated that and the potential noise impacts of that undisclosed off-site location have not been evaluated.

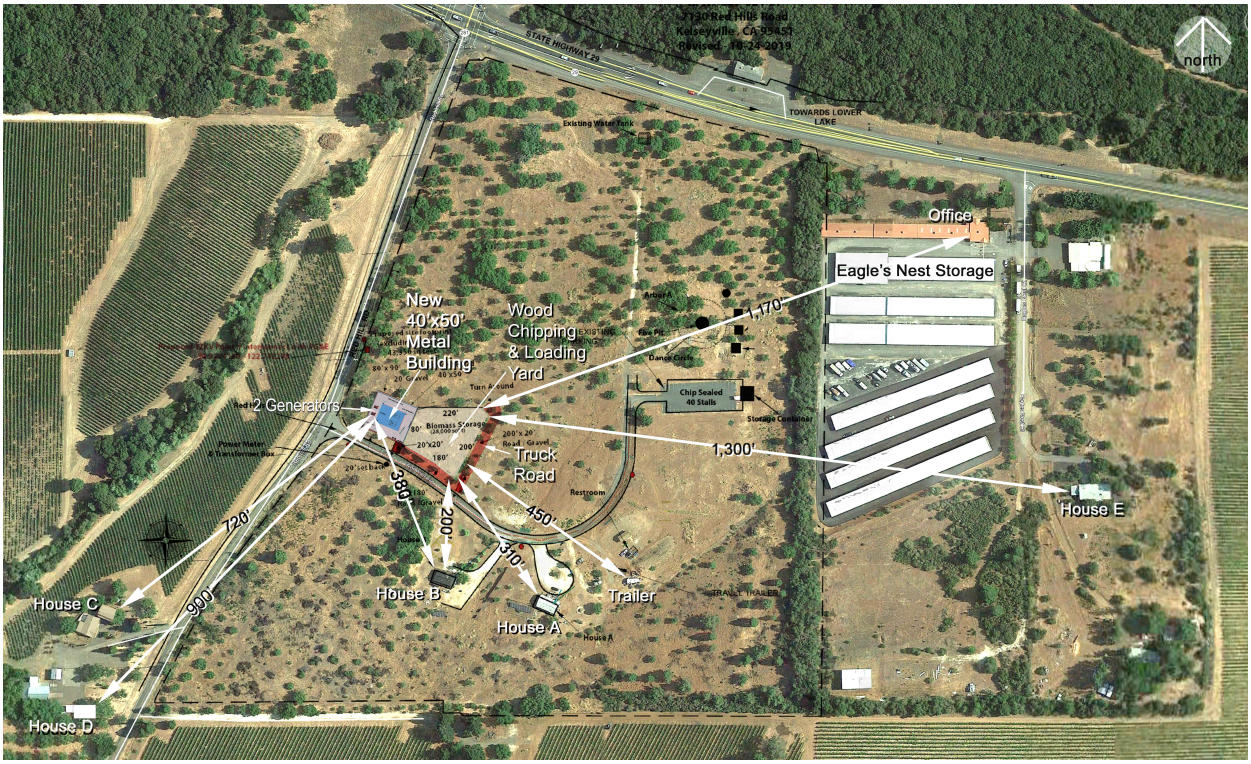

Figure A (repeated for convenience**) – Map of Noise Sensitive Receptors Near Project Site**

[29] *See:* Red Hills Bioenergy Project , "Project Description – Revised 10/23/2019", page 1, paragraph 2: "When the material accumulates, a **tub grinder** stored on site will be operated for intervals of 2-3 hours at a time." *(emphasis added)*

Wood chipper noise levels have been rated by other counties at about 89 dBA at 50 feet.[30] That is a reasonable noise level to use in this Report. The applicants have not agreed to use quieter wood chipper(s). With no barriers proposed surrounding the wood chipper, the following calculated noise levels at nearby homes are estimated. [31]

- At **House B** about 200 to 300 feet from the chipper location, its noise level would be about **73.4** to **77** dBA L_{eq}-1 hr. respectively, assuming no additional reflected noise from the building.
- At **House A** as close as about 310 to 460 feet from the chipper location if allowed anywhere in the chip storage yard, its noise level would be about **73** to **69.7** dBA L_{eq}-1 hr., respectively. That noise level will likely be significantly louder once reflected noise bouncing from the metal building's eastern wall is added.
- At the **Travel Trailer's** location about 450 feet to 620 feet from this chipper, depending where the chipper is located, the chipper noise level would be about **70** to **67.1** dBA L_{eq}-1 hr. respectively, assuming no additional reflected noise from the east wall of the generator building.
- At **House C** located about 750 feet from the west side of the chip storage yard where the chipper might be located, the chipper noise level at that distance could be about **65.5** dBA L_{eq}-1 hr.
- At **House D** located about 900 feet from the west side of the chip storage yard where the chipper might be located, the chipper noise level at that distance could be about **63.9** dBA L_{eq}-1 hr.
- At **House E** located between 1,320 feet to 1,500 feet from anywhere in the yard where the chipper might be located, the chipper noise level at that distance could be about **59.3** to **58.0** dBA L_{eq}-1 hr.[32]
- At the **Office** of the adjacent neighboring Eagle's Nest Self-Storage business located about 1,170 feet from the chip storage yard, or about 1,400 feet from the western end of this yard where the chipper might be located, the chipper noise level could be from **60.2** dBA L_{eq}-1 hr. to **58.6** dBA L_{eq}-1 hr.[33]

All of these chipper noise levels would exceed the County's maximum allowable daytime noise level during any hour of the daytime of **55 dBA L_{eq}-1 hr**. That calculation does not include other Project noise such as trucking, front end loader noise, conveyor belt noise, backup beeper warning noise, or additional reflected noise from the metal building if it is behind the chipper, any of which would raise the Project's noise even further. This is strong evidence that the Project as proposed will generate noise levels that exceed the Noise Ordinance limitations of

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[30] *See:* Table 4.7-6 – "Construction Equipment Noise Emission Levels"; Wood Chipper *89 dBA at 50 feet* Source: Napa County, BDR 2005. *Napa County General Plan Update Draft EI*R, Feb. 2007, page 4.7-18 This document is online and/or a copy will be made available to County officials if requested: https://www.countyofnapa.org/DocumentCenter/View/7959/47-Noise-General-Plan-DEIR-PDF

[31] The estimations of predicted chipper noise levels were calculated with this formula below which has been used in other calculations previously. First, noise attenuates from a point source at a rate of approximately 6.0 dBA per doubling of distance,[31] the Project's noise impacts on sensitive receptors nearby can be determined by the following "Equation 1" for noise attenuation over distance:

$$(1) \qquad L_2 = L_1 - |20\ log_{10}\left(\frac{d_1}{d_2}\right)|,$$

Where:

L_1 = known sound level at d_1
L_2 = desired sound level at d_2
d_1 = distance of known sound level from the noise source
d_2 = distance of the sensitive receptor from the noise source

[32] Due to atmospheric absorption of sound at distances greater than 1,000 feet, the calculated noise level has been reduced by 1.3 to 1.5 dB respectively.

[33] These noise levels at distances greater than 1,000 feet have also been reduced due to atmospheric absorption.

55 dBA L_{eq}-1 hr.[34] As such, this Project's IS/MND is incorrect in determining the Project's noise impact due to the use of the proposed wood chipper will be less-than-significant.

Some calculated chipper noise levels described above would be slightly decreased by "atmospheric absorption" at locations over 1,000 feet from the chipper. However that decrease would not significantly reduce the impact at **House E** or the adjacent business **Office** location. At 1,500 feet, such absorption of sound by the atmosphere would not exceed about 1.5 dBA.[35] Additionally, the row of trees along the Project site's eastern property line is too narrow to have a significant noise reduction effect. Moreover, that row of trees is not close enough to either the source or the receiver of such noise to reduce that noise transmission significantly because sound waves tend to wrap around obstacles at a distance from either source or receiver. The noise levels at those locations of **House E** and the **Office** would therefore still exceed the County's maximum limit of 55 dBA L_{eq}-1 hr.

OPERATION OF THE FRONT-END LOADER WILL CREATE SIGNIFICANT NOISE IMPACTS AT THE FIVE NEAREST HOMES.

A diesel-powered front-end loader is proposed for use. A front-end loader is a noisy piece of heavy equipment when operated for up to eight hours per day near homes.[36] This Project requires that wood be chipped and moved around the site before being stored and burnt for power production. Front-end loaders can generate 85 to 87 dBA at 50 feet.[37] At a distance of 300 feet affecting the two on-site homes, **Houses A and B**, and without any noise wall to attenuate such loader noise, this equipment's noise levels as reduced by distance can be about **69.4 to 71.4 dBA**.[38] At a greater distance of up to about 1,500 feet as proposed by the Project Description and the Project's Site Plan, a single front-end loader could generate noise levels as loud as **54.0 to 56.0 dBA.**[39] **House E** is located about 1,500 feet from eastern side of the Project's chip storage yard where such a front-end loader would be used.

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[34] *See:* Noise Ordinance § 41.11, Table 11.1, for daytime residential maximum one-hour equivalent noise levels of 55 dBA L_{eq}-1 hr.

[35] *See:* "Calculation of Absorption of Sound by the Atmosphere, where 0.1 dB is reduced per 100 feet of distance, for noise of 1,000 Hz at 70 degrees F; this calculator is available online or a copy will be provided to County officials if requested, at http://www.sengpielaudio.com/calculator-air.htm

[36] *See:* IS/MND p. 19: "A diesel-powered front-end loader is estimated to operate 6-8 hours per day, five days per week."

[37] *See:* U.S. EPA, "Noise from Construction Equipment and Operation," Building Equipment and Home Appliances, 1971.

[38] Calculation: $dB_2 = dB1 – 10 \times A \times LOG(R_2/R_1) = 87 – 10 \times 2.0 \times LOG (300' / 50') =$ **71.4 dBA** If the intervening terrain between source and receiver is considered to be soft, an attenuation rate of 7.5 dB per doubling of distance would reduce the calculated noise level at some of these homes. For example, at 300 feet, the front-end loader would generate noise levels of 67.5 dBA instead of the 71.4 dBA calculated above. In this case though, the ground in between Houses A and B and the Project chip yard consists largely of unvegetated gravel and pavement so it might not qualify for that 7.5 dB attenuation rate.

[39] Calculation: $dB_2 = dB1 – 10 \times A \times LOG(R_2/R_1) = 87 – 10 \times 2.0 \times LOG (1,500' / 50') =$ **57.5 dBA**; then subtract 1.5 dB for atmospheric absorption over 1,500 feet of distance: **56.0 dBA $L_{eq-1\ hr}$**. Note: At distances over 1,000 feet, atmospheric absorption typically is assumed to reduce noise transmission by approximately 1.0 dBA per 1,000 feet; therefore just the front-end loader's use may not generate noise levels greater than the County's daytime noise standard. But noise from the other daytime Project operations when added cumulatively will exceed this limit.

If the loader or similarly loud mobile equipment or truck operates in between a home and a large wall of the Project's metal building, then reflected noise could increase its noise level by up to another two decibels. In either case though, even this single front-end loader's operation could create a significant noise impact on nearby homes because that noise level increase would exceed County standards. The County's maximum daytime noise standard for operations of all Project equipment as measured at neighboring residences is **55 dBA $L_{eq\text{-}1\ hr.}$** Just the operation of the Project's front-end loader will exceed that noise standard at all these neighboring homes. That includes **Houses A, B, C, D, and E** because they are less than 1,500 feet from the Project's wood-loading areas.

Not only will the noise level from front-end loader use exceed County standards, but its operation will also generate a noise level *increase* that will be greater than 5 dBA louder in magnitude than the existing ambient noise levels at these neighboring homes. That much of an increase is a significant noise impact and it would be clearly audible and likely annoying to these residents. Yet the IS/MND utterly fails to disclose, evaluate or mitigate the noise levels this front-end loader will generate at nearby sensitive receptors.

CONSTRUCTION-RELATED SHORT-TERM NOISE IMPACTS WILL BE SIGNIFICANT

The IS/MND states that during construction, this Project "*may involve the use of a tractor/grader, compactor, water truck, and trucks delivering rock and concrete. Construction noise would occur over a period of approximately 8-12 weeks*." (IS/MND, p. 24) The IS/MND does not mention that a chain saw and a wood chipper may also be used to cut and chip the dozens of trees proposed for removal. (*Ibid*., p. 12) This equipment can generate very loud noise impacts for months that neighbors have a right to know about.

During construction activities with the use of a chain saw, a chipper and a grader when all three might be operating simultaneously, the builders could generate noise levels of up to 79.5 dBA $L_{eq\text{-}1\ hr.}$ at the nearest home 200 feet from the site.[40] That noise level would be **24.5 dBA greater** than the Zoning Ordinance maximum-allowed daytime 55 dBA $L_{eq\text{-}1\ hr.}$ limit. But construction noise could be exempted from the Noise Ordinance standards during those hours. The County's exemption rule about construction noise however does not mean this Project would not have a significant noise impact to those sensitive receptors. CEQA still applies.

If for example, in this rural location these homes could be exposed to existing ambient noise levels of about 40 dBA $L_{eq\text{-}1\ hr.}$ in the daytime, but for months on end could be exposed to increased construction noise levels of up to about 79.5 dBA $L_{eq\text{-}1\ hr.}$, that could represent a temporary noise level increase of nearly 40 dBA. (79.5 – 40 = 39.5 dBA increase) More realistically, most construction would occur farther away at the location of the proposed metal building. So construction noise would decrease somewhat. Even if construction noise level

[40] The estimation of a noise level of 79.5 dBA L_{eq}-1 hr. at that home is calculated by adding the separate noise levels of a chain saw (85 dBA), a chipper (89 dBA), and a grader (85 dBA) that could be used simultaneously near that home. Those decibel levels are at a distance of 50 feet. Calculation: $L = 10 \times \text{Log}_{10} (10^{8.5} + 10^{8.9} + 10^{8.5})$ = 91.5 dBA at 50 feet. Then to adjust for the 200-foot distance to this House B, where sound levels attenuate by 6 dBA for each doubling of distance, the noise level at that house would be 12 dBA less, which is about 79.5 dBA.

increases dropped to half as much of an increase, a 20 dBA temporary increase would still be significant because it is much more than a typical 5 dBA threshold of significance used by many agencies reviewing CEQA projects. In such quiet rural locations, loud industrial construction noise can be particularly intrusive and disturbing. A 20 dBA to 40 dBA temporary noise level increase would be very significant. These neighboring residents may be unable to get away from this loud construction noise because they may still be under pandemic-related mandates that they stay home. Under these trying circumstances, these residents need protection from excessive noise. The IS/MND is inadequate for failing to disclose that potentially-significant temporary noise impact.

Other agencies require such an evaluation of significant increases in noise due to construction activities. For example, the City of Los Angeles defines[41] that "a project would normally have a significant impact on noise levels from construction if:

- Construction activities lasting more than one day would exceed existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use.
- Construction activities lasting more than 10 days in a three month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use.

Another standard to be considered is the California Noise Insulation Standards (Building Code Title 24, Section 3501 et seq.). This standard for residential land uses sets a maximum interior noise level of **45 dBA L_{dn}** in any habitable room, averaged over a 24-hour period. This standard protects against sleep-disturbance impacts at nighttime, and more pertinent here to actual construction noise, against unreasonable annoyance impacts during the daytime.

If construction activities occur with a combined noise level of 91.5 dBA L_{eq} at 50 feet, then at 350 feet from House B, that noise level would be reduced by distance to about 74.6 dBA L_{eq}. If construction occurs for 12 hours per day from 7:00 a.m. to 7:00 p.m., centered at 350 feet from House B, and the site is quiet for the remaining 12 hours per day, the day-night weighted average noise level would be about **71.6 dBA L_{dn}** at that home's exterior.[42]

With an exterior noise level of 71.6 dBA CNEL at **House B**'s windows, and with an attenuation factor of 20 dBA due to noise passing through the walls and roof of a home with closed windows, the interior noise level there would be as much as about **51.6 dBA CNEL.** That interior noise level due to Project construction would exceed the Building Code standards and the County General Plan's maximum allowable 45 dBA CNEL interior noise limit. Construction noise could be louder yet if the work occurred in the chip yard as close as 200 feet to **House B**. Therefore construction noise impacts would be significant at some homes.

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[41] See L.A. CEQA Thresholds Guide (2006) Page I.1-3, Section 2(A) Significance Threshold.

[42] Calculation of CNEL: Assign **74.6 dBA L_{eq}** to each daytime hour from 7 a.m. – 7 p.m., and **45 dBA L_{eq}** for each evening hour from 7 p.m. – 10 p.m., (i.e. add 5 dB to each hour presumed at 40 dB), and **50 dBA L_{eq}** for each hour from 10 p.m. – 7 a.m. (i.e. add 10 dB to each nighttime hour presumed at 40 dB. Then calculate the logarithmic average of these noise levels for all 24 hours in a day with this formula:

CNEL$=10\log_{10}[(1/24)x\{(10^{(40+10)/10}x7\text{ hrs})+(10^{(74.6)/10}x12\text{ hrs})+(10^{(40+5)/10}x3\text{ hrs})+(10^{(40+10)/10}x2\text{ hrs})\}] =$

$=10\log_{10}[(1/24)x\{700{,}000 + 346{,}083{,}780 + 94{,}868 + 200{,}000\}$

$=10\log_{10}[(1/24)x347{,}078{,}648] = 10 \times \log_{10}[14{,}461{,}610] = 10 \times 7.16 =$ **71.6 CNEL**

Such extremely loud construction noise is not reasonable and unavoidable because there are commonly available and routinely used methods to quiet such loud construction noise. For example, temporary sound curtains can be erected to protect neighbors. There are also mufflers, hand tools or quieter electric-powered equipment that can be used.

COUNTY NOISE STANDARDS DO NOT ADEQUATELY PROTECT NEARBY HOMES FROM LOW-FREQUENCY HEAVY EQUIPMENT NOISE

The IS/MND fails to evaluate how intrusive the nature of this Project's low-frequency industrial noise would be if located so close to the neighboring residences. The County's noise standards do not limit the amount of very intrusive, low-frequency noise typically emitted from diesel-powered heavy equipment operations, trucks, front end loaders, and chippers; the County's noise standards are based upon an "A-scale" frequency range that does not proportionately account for low frequency noise less than 500 Hertz where much heavy equipment noise energy is concentrated. Low frequency noise from the Project's operations is not attenuated well by light-weight residential structures, and thus is more troublesome for this Project's neighbors. This kind of an incompatible neighboring land use is generally solved by not allowing zoning heavy industrial operations to be adjacent to residences.

When low frequency noise is of concern, C-weightings are used because they attenuate low frequencies much less than the other weightings. Other California EIRs discuss noise impacts using the C-weighted scale. For example, the Blue Rock DEIR for Sonoma County states:

> "In special situations, the C-weighted sound level or dB(C) scale is sometimes used. This scale gives more weight to lower frequency noise. When it is used, the intent is to differentiate between noises that have varying amounts of low frequency noise that would produce only little differences in A-weighted sound level." http://www.sonoma-county.org/prmd/docs/eir/bluerockdeir/apdx-i.pdf

It is true that people are more sensitive to noises in the "A"-weighted frequency range of 1000 Hz to 4000 Hz, but that doesn't mean that lower frequency sounds should be discarded from consideration. Industrial uses with large equipment and heavy trucking often produce much of their noise at frequencies less than 500 Hz. The "C"-weighted scale takes into account those frequencies down to 50 Hz where much industrial noise is generated. Noise level meter readings on the "C"-weighted scale can often be 8 dB louder than those on the "A"-weighted scale. The "A"-weighted noise scale emphasizes noise in the 500-20,000 Hz frequency range, while the "C"-weighted noise scale more broadly covers the lower frequency 50-20,000 Hz range where this Project's industrial noise from heavy truck deliveries and unloading of wood chips, chipper machinery and other equipment will be generated. The booming sound of heavy equipment can greatly impact nearby residences. Nearby homes neighborhood are predominantly constructed with lightweight wooden walls and thin windows that are not good at blocking low frequency sounds.

INADEQUATE NOISE MITIGATIONS

Some proposed noise reduction measures identified by the Project applicants have not been called "mitigations" during the Project approval. Thus these noise reduction measures are inadequate and not enforceable under CEQA because they are not binding mitigations. These measures must be included as binding mitigations because otherwise the noise impact would be potentially significant. Other identified mitigations are simply inadequate.

Noise Mitigation Measure NOI-1 is Inadequate

The IS/MND had to investigate if the Project "*would result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies*?" (IS/MND p. 24) Some of those standards from the County's Noise Ordinance, designed to protect neighboring residents, require the builders not to exceed a noise level of **55 dBA L_{eq}-1 hr.** at neighboring residences. That is, per one exemption, unless construction occurs onsite between 7:00 a.m. and 7:00 p.m., in which case there is no limit to the noise level the County's Noise Ordinance would regulate.

So for example, during construction use of a chain saw, a chipper and a grader when all three might be operating simultaneously, the builders could generate noise levels of 79.5 dBA L_{eq}-1 hr. at the nearest home 200 feet from the site.[43] That noise level would be 24.5 dBA greater than the Zoning Ordinance's maximum allowed 55 dBA L_{eq}-1 hr. standard. But that construction activity noise level could be exempted from the Noise Ordinance standards during those hours. That exemption however does not mean there would not be a significant noise impact to sensitive receptors nearby. This mitigation measure NOI-1 (from the IS/MND, p. 25) does not cover all applicable concerns about excessive noise:

> Noise Mitigation Measure NOI-1: (For temporary construction noise)
>
> *NOI-1: All construction activities including engine warm-up shall be limited to Monday Through Friday, between the hours of 7:00 a.m. and 7:00 p.m. to minimize noise impacts on nearby residents. Back-up beepers shall be adjusted to the lowest allowable levels. Contractors shall implement noise-reducing measures during construction when occupied residences or other sensitive receptors are located within 500 feet.*

CEQA imposes a different threshold of significance on construction noise rather than exempting it altogether from 7:00 a.m. to 7:00 p.m. One question also before the County is whether or not there might be a *temporary increase in ambient noise levels* in the vicinity of the project? The

[43] The estimation of a noise level of 79.5 dBA L_{eq}-1 hr. at that home is calculated by adding the separate noise levels of a chain saw (85 dBA), a chipper (89 dBA), and a grader (85 dBA) that could be used simultaneously near that home. Those decibel levels are predicted at a distance of 50 feet.

Calculation: $L = 10 \times \text{Log}_{10} (10^{8.5} + 10^{8.9} + 10^{8.5}) = 91.5$ dBA at 50 feet.

Then to adjust for the 200 foot distance to this House B, where sound levels attenuate by 6 dBA for each doubling of distance, the noise level at that house would be 12 dBA less, which is about 79.5 dBA.

appellate court decision in *King and Gardiner Farms, LLC v. County of Kern et al* (2020) 45 Cal.App.5th 814, 892 shows that the County is required to also consider the magnitude of the increase in noise levels caused by the Project's temporary construction activities at nearby sensitive receptors. The IS/MND never does this. No ambient noise level measurements were provided there. And no discussion of how much louder such construction noise might be compared to ambient noise levels there was included in the IS/MND. Without that analysis, there is no evidence to support the IS/MND's determination that this noise mitigation measure NOI-1 will reduce construction noise to a less-than-significant level. If for example, in this rural location these homes are exposed to existing ambient noise levels of about 40 dBA L_{eq}-1 hr. in the daytime, but for months on end could be exposed to increased construction noise levels of up to about 79.5 dBA L_{eq}-1 hr., that could represent a temporary noise level increase of nearly 40 dBA. (79.5 – 40 = 39.5 dBA increase) In such quiet rural locations, loud industrial construction noise can be particularly disturbing. A 40 dBA temporary noise level increase would be very significant. The IS/MND is inadequate for failing to disclose that potentially significant noise impact that construction activity may cause.

Mitigation measure NOI-1 is not saved by its requiring contractors to implement noise-reducing measures during construction when occupied residences or other sensitive receptors are located within 500 feet when no such measures are even specified. If the on-site residences were unoccupied during construction, then this mitigation would not even require any noise-reducing measures to protect off-site **Houses C, D, and E** located more than 500 feet away from loud construction noise.

The Project's mitigation that "*(b)ack-up beepers shall be adjusted to the lowest allowable levels*" is also ineffective because some such alarm devices do not allow adjustments. Backup alarms are one of the most complained about sources of noise because they are intentionally designed to be loud and alarming.

Noise Mitigation Measure NOI-2 is Also Inadequate

The Planning Commission approved the IS/MND (p. 25) with noise Mitigation Measure NOI-2. That mitigation allows during normal operations, if the chipper's noise level exceeds County standards, planning officials to subsequently negotiate with the Project applicant and approve different noise attenuation measures behind closed doors without any public knowledge. That mitigation clearly violates CEQA because, along with the failure to provide an adequate noise study now in the IS/MND, it allows deferring an actual noise impact assessment to some future date. It also allows the applicant and County staff to decide upon new noise control measures of unknown effectiveness. As such, that mitigation measure violates *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307. [44]

> "It is also clear that the conditions improperly delegate the County's legal responsibility to assess environmental impact by directing the applicant himself to conduct the hydrological studies subject to the approval of the planning commission staff. Under CEQA, the EIR or negative declaration must be prepared "directly by, or under contract

[44] That court decision in *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307 is available online at: https://scholar.google.com/scholar_case?case=1928844925867305993

> to" the lead agency. (Pub. Resources Code, § 21082.1.) The implementing regulations explicitly provide: "The draft EIR which is sent out for public review must reflect the independent judgment of the lead agency." (Cal. Code Regs., tit. 14, § 15084, subd. (e).) Moreover, the EIR must be presented to the decisionmaking body of the agency. In *Kleist v. City of Glendale* (1976) 56 Cal. App.3d 770, 779 [128 Cal. Rptr. 781], the court held that the city council cannot delegate responsibility for considering the EIR to a planning board. By necessary inference, the board of supervisors cannot delegate the responsibility to the staff of the planning commission."

The noise standards[45] mentioned in mitigation measure NOI-2 are also inadequate as specified because they do not include all applicable noise standards. Some applicable noise standards are not found in the County's Noise Ordinance. For example, this mitigation measure would not restrict Project activities that increase the ambient noise level at nearby sensitive receptors by more than 5 dBA, as CEQA is often interpreted to require. This mitigation measure also does not hold the applicant to those noise standards found in the County's General Plan.

CONCLUSION

As discussed above, the Project's Initial Study/Mitigated Negative Declaration fails to provide sufficient and basic information required for the County to adequately assess the severe noise impacts of this Project. As a result, this Project's likely construction and operational noise impacts have been demonstrated that there is substantial evidence in this Report of a fair argument to show that the Project may have significant noise impacts. As a result, this IS/MND is inadequate and inappropriate for the Project's CEQA review.

The Project's noise impacts to these nearby homes should compel the County to require proper CEQA review of these significant noise impacts and likely exceedances of County noise standards. Moreover, feasible mitigation measures are available and need to be considered pursuant to a CEQA-compliant EIR.

Sincerely,

Dale La Forest

Dale La Forest
Professional Planner, Designer, INCE Associate (Institute of Noise Control Engineering)
Dale La Forest & Associates

Attachment 1 - Appendix – with additional information
Attachment 2 - Statement of Qualifications

[45] *See:* IS/MND p. 25, for the mitigation measure NOI-2 with reference to some noise standards.

Attachment 1

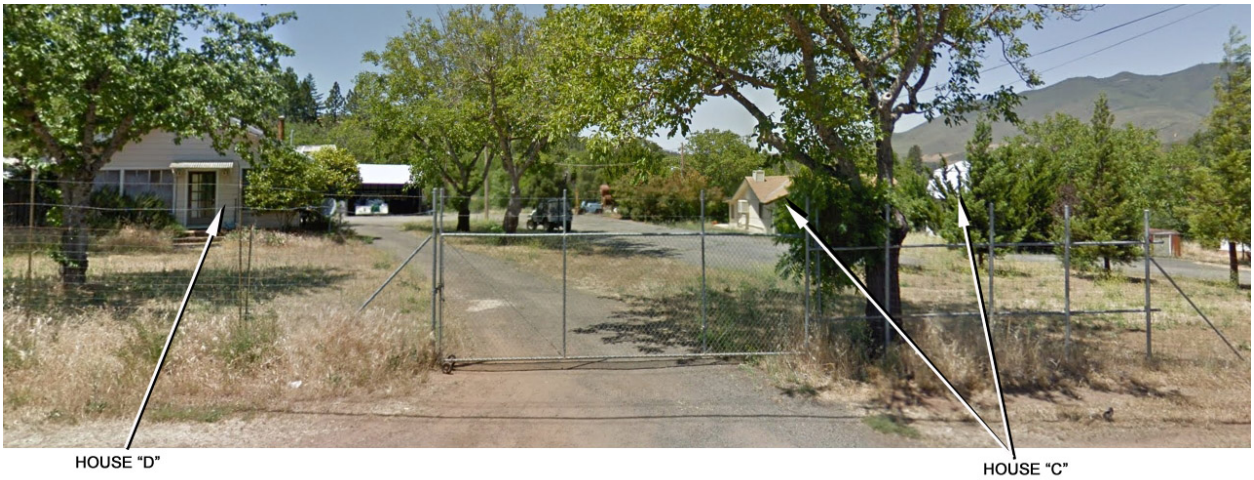
APPENDIX

The IS/MND p. 1 mentions two single-family residences[46] and a travel trailer used for housing but without listing their distances to Project activities. Elsewhere, the IS/MND p. 5, mentions an off-site residence situated "approximately 800 feet southwest of the Project Site." [47] That description somewhat exaggerates the distance to that home because that home (hereafter called "House D") is directly across the street from the Project site. It is merely about 720 feet from the Project's proposed generator and outdoor chip grinding and storage yard.

On page 13, the IS/MND states "*There are two on-site residences and a travel trailer located approximately 200 to 300 feet from the Project Site*." This distance claim also occurs on pages 20 and 24.

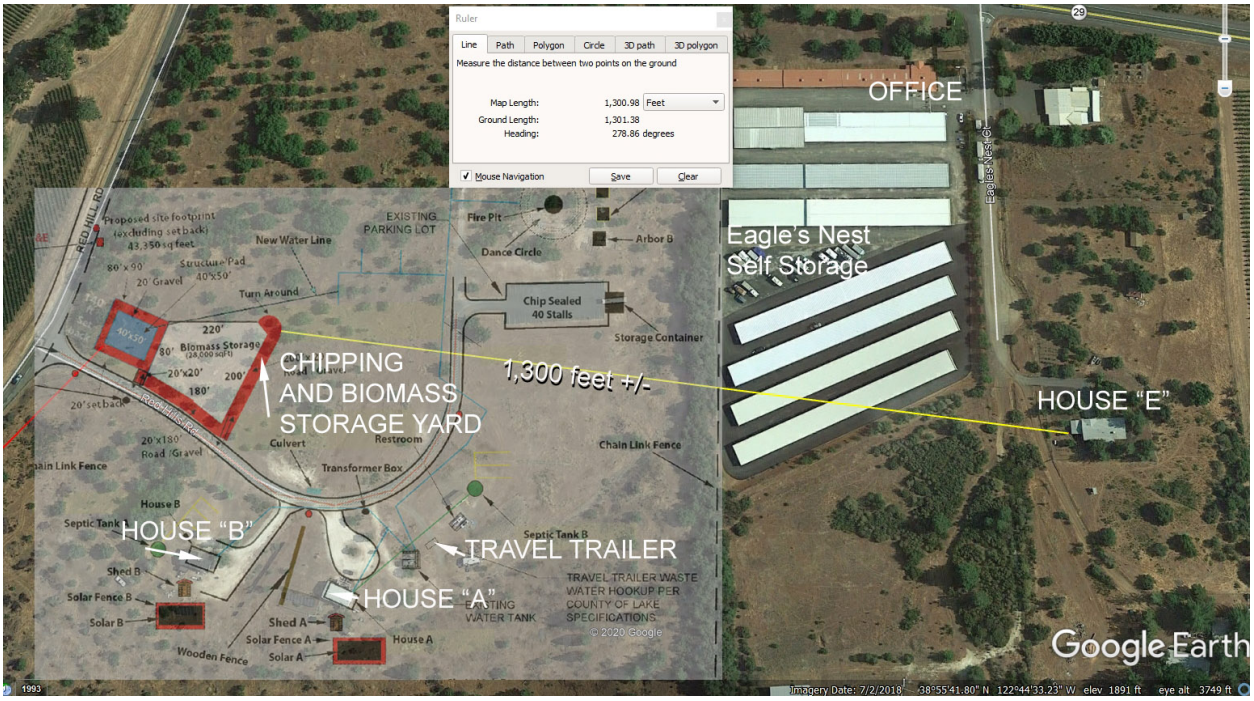
For reference, here are photographs of **Houses D and C.**

FIGURE H
PHOTO OF NEARBY HOMES TO SOUTHWEST OF PROJECT OPERATIONS ON RED HILLS ROAD



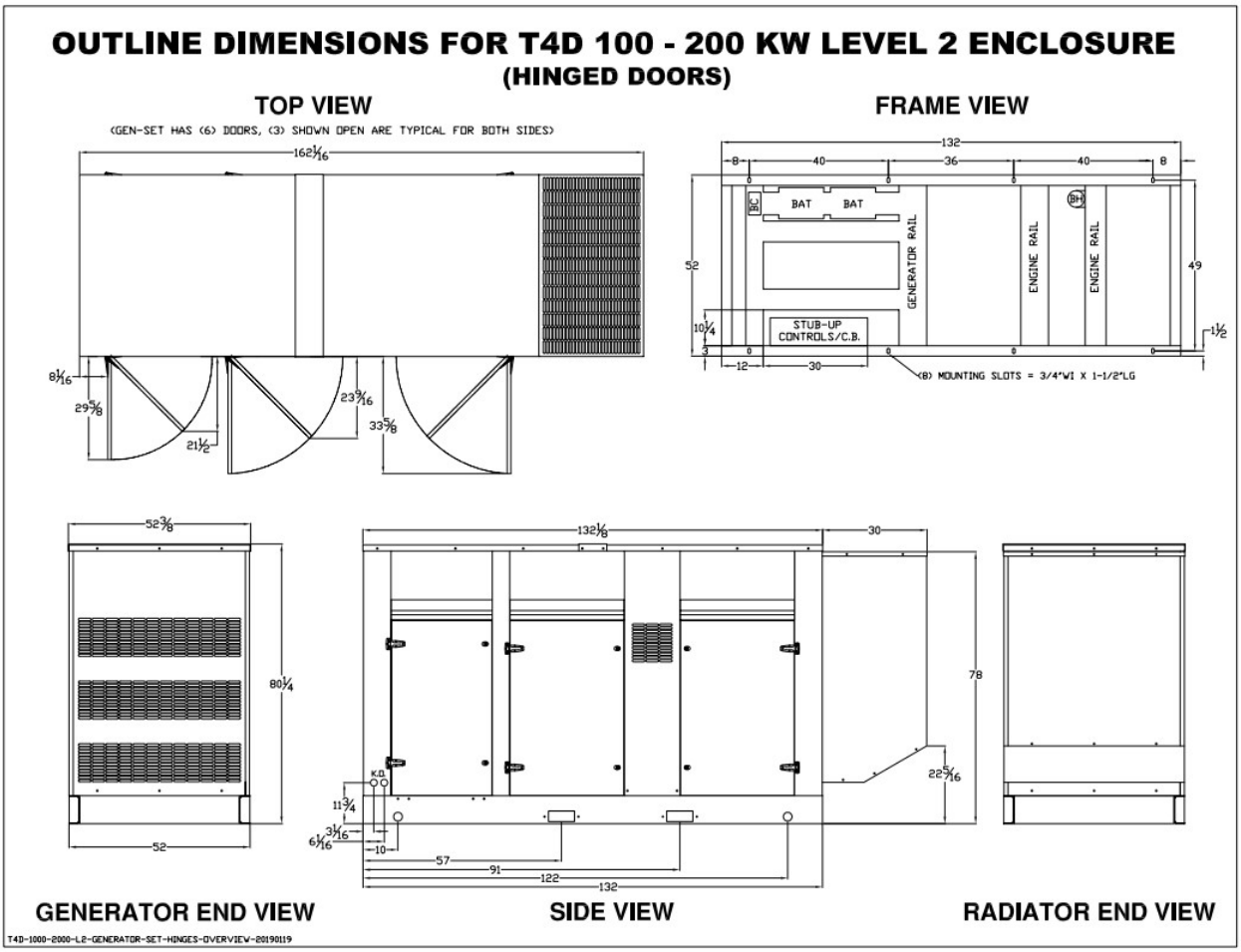
[46] "House A" and "House B", as identified on the Project Site Plan to the south and southeast of the generator building.
[47] Similarly, the IS/MND p. 24 states "(t)he nearest off-site single-family residence is located approximately 800 feet southwest of the edge of the property boundary."

FIGURE I
DISTANCE OF HOUSE "E" TO EAST FROM PROJECT OPERATIONS
BARNES RESIDENCE AT 7140 EAGLES NEST LANE



The electrical generators this Project proposes are better described with the following information from their manufacturer:

Gillette T4D-1500 Prime Generator (150kW)



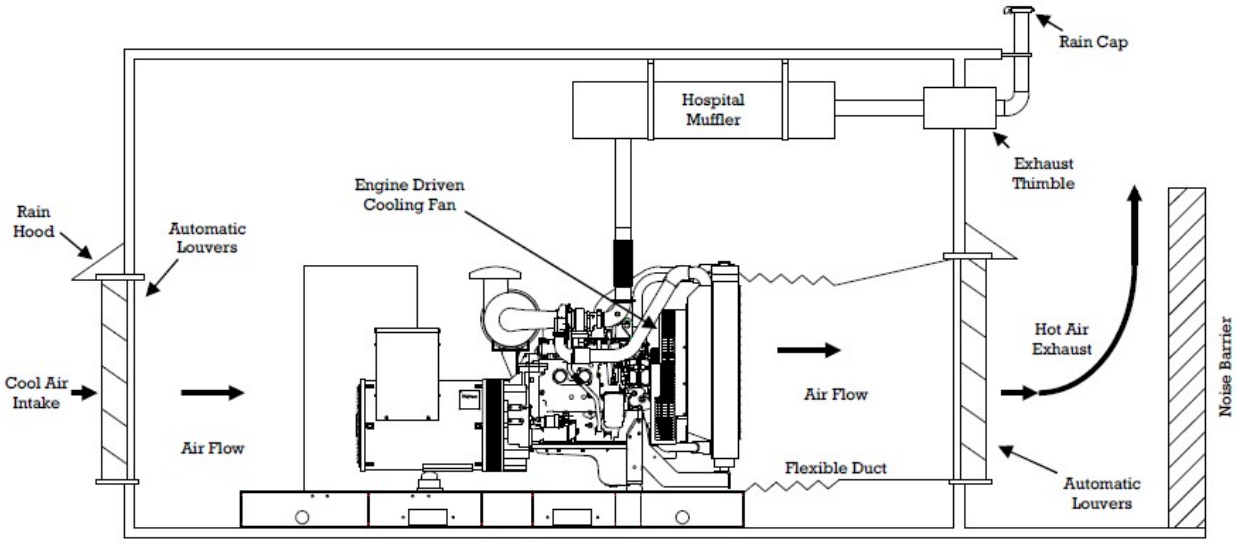


FIGURE 5

Figure J – Section View of Gen-Set from Manufacturer – But Project Does Not Include any Noise Barrier outside the Aluminum Enclosure's Hot Air Exhaust Grill

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ATTACHMENT 2: Statement of Qualifications

INTRODUCTION

Dale La Forest & Associates provides commercial and residential design services, acoustical consulting, environmental review, project planning permitting for government approvals and multi-disciplinary environmental studies for government and private industry and citizens groups.

HIGHLIGHTS

In 45 years, I have designed hundreds of homes in California. During the last 20 years, I have also prepared expert acoustical studies for various development projects and reviewed and commented upon dozens of noise studies prepared by others. My expertise in environmental noise analysis comes from this formal educational training in architecture and planning, and from many years of evaluation of acoustics as relates to environmental analysis and challenging flawed project applications prepared by less-than-professional, industry-biased acousticians. I regularly measure and calculate noise propagation and the effects of noise barriers and building acoustics as they apply to homes near projects and their vehicular travel routes. I have also prepared initial environmental studies for noise-sensitive development projects including hotel and campground projects along major highways. I have reviewed dozens of quarry project and batch plant project environmental documents. I have designed highway noise walls, recommended noise mitigations, and have designed residential and commercial structures to limit their occupants' exposure to excessive exterior noise levels throughout California.

EXPERIENCE

1975 – 2020 **DESIGNER & PLANNER** — Dale La Forest & Associates; Mt. Shasta, CA. Design of commercial, residential, subdivision planning projects and environmental and acoustical consulting for commercial and industrial firms and for the public.

Dale La Forest, Architectural Designer, INCE Associate (Institute of Noise Control Engineering)

EDUCATION

1966 – 1973 **University of Michigan**, College of Architecture and Planning - Bachelor of Architecture, 1973; and Masters studies in architecture and planning.

ACOUSTICAL ANALYSIS/COMMENTS

8/28/19	CitizenM Hotel Project, DEIR, Los Angeles, CA
4/15/19	Mart South Hotel Conversion Project, C.E., Los Angeles, CA
2/27/19	Citizens News Project MND, Los Angeles, CA
2/11/19	2005 James Wood Hotel Project MND, Los Angeles, CA
2/4/19	Breakers Hotel Project C.E., Long Beach, CA
1/23/19	Residence at 1888 N. Lucile Ave. MND, Los Angeles, CA
12/5/18	100 E. Sunset Bridge Housing C.E., Los Angeles, CA
11/6/18	Dewey Hotel Project C.E., Los Angeles, CA
2/12/18	Residence at 17642 Tramonto Dr., Los Angeles, CA
11/16/17	Crystal Geyser Water Company EIR, Mt Shasta, CA
8/18/17	Freeze Car Wash Project MND, Mt. Shasta, CA
3/13/17	Roseburg Water Line Project MND, Mt. Shasta, CA
1/19/17	Residence at 2056 Mandeville Canyon Rd., Los Angeles, CA
8/31/16	Austin Quarry Project EIR, Madera County, CA
10/20/15	Syar Napa Quarry Expansion Project EIR, Napa
9/30/13	Shasta Dam Raising Draft EIS, Shasta County, CA
9/30/13	Livermore Walmart Project, Livermore, CA
8/27/13	Talmage Interchange Reconstruction Project MND, Ukiah, CA
6/10/13	Townhouse Project MND, Mt. Shasta, CA
3/15/13	Costco Wholesale Store DEIR, Ukiah, CA
3/14/13	Jaxon Enterprises Asphalt Plant IS/MND, Shasta County, CA
3/14/13	Amdun LLC Asphalt Plant IS/MND, Shasta County, CA
1/30/13	Grist Creek Aggregates Project IS/MND, Mendocino County, CA
9/24/12	Austin Quarry Draft EIR, Madera County, CA
8/26/12	Tesoro Viejo Specific Plan Revised EIR, Madera County, CA
10/10/11	Eagle Peak Asphalt Batch plant MND, Callahan, CA
6/12/11	Walmart Expansion Project EIR, Poway, CA
2/20/11	McCloud Springs Ranch Subdivision MND, Siskiyou County, CA
1/4/11	Comingdeer Asphalt Batch Plant MND, Redding, CA
10/1/10	Biogreen Cogeneration Power Plant, La Pine, OR
7/13/10	Chapin Concrete Batch Plant MND, Volta, CA
1/25/10	Walmart Supercenter Draft EIR, Galt, CA
1/11/10	Doctor's Park MND, Mt. Shasta, CA
9/22/09	Livingston Concrete EIR, Placer County, CA
6/10/09	Poonkinney Quarry MND, Mendocino County, CA
5/11/09	Orchard Subdivision MND, City of Mt. Shasta, CA
1/2/09	McCloud Springs Ranch Subdivision MND, Siskiyou County, CA
10/8/02	Shasta Mountain Lodge Hotel 2 (Springhill Dr.), Mt. Shasta, CA
10/10/95	Shasta Mountain Lodge Hotel 1 (Mt. Shasta Blvd.), Mt. Shasta, CA

EXHIBIT B

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August 13, 2020

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RE: AWA Comments Regarding Air Quality Analysis, Significance Determinations and Mitigations Contained Within the Red Hills Bioenergy Project (IS 19-09) IS/MND

At the request of John P. Kinsey, Esq., Autumn Wind Associates has reviewed the above-referenced Initial Study and Mitigated Negative Declaration and associated Lake County documents for the analysis, determination, and mitigation of air emission impacts estimated for the proposed Red Hills Bioenergy Project ("Project"), and submits this comment letter regarding our concerns for the project's failure to adequately characterize and mitigate the project's air quality impacts.

All page references in this report are, unless otherwise noted, taken from the project's IS/MND provided by Lake County as Lead Agency, and utilize the pdf program's page counter function for the 191-page document, obtained from the County's website, since the document as posted by the County is not logically paginated.

As proposed, the Project will utilize existing land owned by the Scotts Valley Band of Pomo Indians on Red Hills Road, Kelseyville (Lake County, CA) to site and operate a bioenergy/gasification/power generation plant on a full-time basis using woody biomass delivered to the site by heavy-duty trucks. Chipped and native woody materials delivered to the site will reduced by chipper, hammermill, or tub grinder and moved onsite by a front-end heavy-duty diesel loader. Gasifier and related equipment will be located in a newly constructed steel building; two 100kW gensets will be located outside, nearby, and co-located near woody biomass storage and processing equipment. Production of syngas at the site will occur on a daily basis, year-round, and may provide fuel for two 100kW gensets intended to provide electricity into the grid. Based on complaints of dust and noise noted in information resulting from discussion of the project in a public Planning Commission hearing, the project site was recently used to operate across a number of months a wood waste grinding operation which resulted in complaints of dust and noise to the County and the LCAQMD.

I. The IS/MND Fails to Provide Effective, Comprehensive Analysis and Evaluation of the Project's Air Quality Emissions and Their Potential Impacts

Our review reveals a number of shortfalls with the CEQA document's failure to 1) adequately identify and discuss important emissions-related information regarding process rates and emissions-generating equipment to be used routinely at the proposed Red Hills BioEnergy operation; 2) in some cases lists contradictory information relevant to the determination of potentially significant emissions impacts, and: 3) in other cases provides no information necessary to evaluate the project's emissions of federally- and state-regulated criteria air pollutants for determination of project-related significant air quality impacts.

As an example, IS/MND at pg. 40 (of 191) states that one full-time employee at the site will

> "work 5.5 hours/day, seven days a week on a split shift. The operator will be responsible for chipping feedstock, feeding the hopper, packaging biochar and monitoring the plant's operation. Equipment employed in the storage area will include one front end loader, one hammermill, and possibly two conveyor belts placed between the chipper and the hammermill and between the hammermill and the hopper".

However, at pg. 41 the use of the front end loader is identified to occur "6 – 8 hours per day", exceeding the 5.5 hours/day for the one full-time employee who will be charged with accomplishing several different duties each day.

In addition, no detailed information is found in the IS/MND that identifies the size and horsepower of the diesel-powered front end loader, either a diesel-powered or electric-powered chipper (identified as diesel at pg. 19 but possibly electric at pg. 24), either an electrically powered (pg. 24) or diesel-powered (pg. 41) hammermill, and mobile conveyor belts that while unstated for power source may operate on diesel power. These contradictions (or in the case of the conveyors, missing information) are required for an accurate determination of whether the project could cause significant local or even regional air quality impacts. Without their substantive review the IS/MND has failed its CEQA duty and cannot justifiably claim that the project will not lead to unacceptable air pollution increases.

II. Diesel Equipment Emissions are Not Provided in the IS/MND

Necessary information to estimate the project's diesel-related equipment and vehicle emissions is simply not provided in the project's CEQA documentation, and this oversight is not acceptable since diesel engines emit diesel particulate matter (DPM), a CARB-listed toxic air contaminant with well-demonstrated serious health

effects.[1] Unsafe accumulations of DPM and particulate matter can, particularly under stagnant air conditions that often in early mornings and under summer and fall high-pressure atmospheric conditions, cause localized exceedances of 24-hour state or federal PM10 or PM2.5 health-based air quality standards.

At pg. 2 the IS/MND states that the project will grid-connect to 240 volt/3-phase/100-amp service, but because the IS/MND provides no information on the horsepower demands for electric motors necessary to operate chipper, hammermill, conveyors, etc., the 100-amp, three-phase grid power supplied to the site may be unable to supply sufficient power for the hammermill, conveyors, and other equipment. If this occurs it will result in reliance on higher-polluting diesel equipment. Such reliance would increase localized particulate and toxic air contaminants including DPM. No mention is made of the health risks associated with DPM in the project's CEQA documentation; this is unacceptable since nearby residents may be exposed to significant increases in non-cancer and cancer health risks. A project's potential for creating unacceptable health risks for cancer risks, typically identified by numerous air districts throughout the State as an increased cancer risk of 10 per million population, is a routine component of MND's involving the operational use of diesel vehicles and equipment. However, the Red Hills BioEnergy IS/MND has ignored this potential impact altogether.

III. IS/MND Provides Conflicting Emissions-Relevant Information Regarding Gensets

In similar fashion, while numerous entries in the IS/MND (starting at pg. 2) identify that the project's two "modified" (pg. 16) 100kW genset engines will be operate on syngas produced onsite by the Artis gasifier unit, no emissions rate information is provided for the "modified" genset engines, nor is there any information provided to show that they will meet CARB offroad engine certification regulations currently applying to the Volvo Penta diesels. Similarly, nothing is found to show that modifications necessary to permit them to run on project syngas will comply with EPA Memo 1-A's tamper-proofing and modification requirements.

In addition at pg. 47 manufacturer cut-sheet information clearly identifies that the two gensets will utilize large-displacement Volvo-Penta diesel engines and that they will consume up to 11.5 gallons of diesel per hour at full load. And while information provided by the gasifier's manufacturer (Omni BioEnergy, LLC) provides details identifying percentages of hydrogen, CO, methane, etc., expected for the project's syngas that may (or may not) fuel each generator's engine, it is a fact that diesel (compression-ignited) engines are not inherently capable of

[1] CA Air Resources Board; "Diesel engines emit a complex mixture of pollutants, including very small carbon particles, or "soot" coated with numerous organic compounds, known as diesel particulate matter (PM). Diesel exhaust also contains more than 40 cancer-causing substances, most of which are readily adsorbed onto the soot particles. In 1998, California identified diesel PM as a toxic air contaminant (TAC) based on its potential to cause cancer. Diesel engine emissions are believed to be responsible for about 70% of California's estimated known cancer risk attributable to toxic air contaminants. Also, diesel PM comprises about 8% of outdoor fine particulate matter (PM2.5), which is a known health hazard. As a significant fraction of PM2.5, diesel PM contributes to numerous health impacts that have been attributed to particulate matter exposure, including increased hospital admissions, particularly for heart disease, but also for respiratory illnesses, and even premature death. CARB estimates that diesel PM contributes to approximately 1,400 (95% confidence interval: 1,100-1,800) premature deaths from cardiovascular disease annually in California. Additionally, exposure to diesel exhaust may contribute to the onset of new allergies; a clinical study of human subjects has shown that diesel exhaust particles, in combination with potential allergens, may actually be able to produce new allergies that did not exist previously." See https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts

operating on a gaseous fuel. Either the gensets will run on diesel fuel or they will require extensive modifications, including the addition of spark plugs which will shift their regulatory status from diesel to spark-ignited, in order to operate with the project's proposed hydrogen-rich syngas. Their respective emissions test data are conspicuously absent from the IS/MND.

At pg. 41, the IS/MND claims without EPA or CARB emissions certification data or any other evidence that

> "The electricity generator will meet all EPA and regional air quality board standards with an emission level cleaner than a natural gas generator.

This statement reveals broad ignorance of air agency emission standards and regulations that apply to the two genset engines proposed for use in the Red Hills BioEnergy project, and is a gross oversimplification since by law only EPA and CARB can regulate the several types of Clean Air Act-specified "criteria" pollutants emitted by the Volvo Penta diesel engines. Further, local or regional air quality stationary source permitting and enforcement duties are undertaken by air districts (not a "board"), and natural gas engine emissions (of the "natural gas generator" noted above) are certified under harmonized (EPA/CARB) Large Spark Ignited (LSI) regulations to the same emission standards irrespective of fuel type; therefore, a "natural gas generator" certified by CARB or EPA for use in CA must meet the same standards as, say, a certified gasoline, propane, or syngas-fueled engine.

Importantly, because the project's genset engines must be modified to operate on syngas, certified offroad engine emission values applied to the two diesel genset engines will no longer apply. No emissions test or certification data for the two engines have been provided in the IS/MND and therefore the project's CEQA air quality review cannot ensure that the modified engines, despite their operating with the syngas' purported 43% hydrogen level, will not cause NOx, HC, or CO emission excursions that exceed their EPA-certified (diesel) Tier Four-Final emission levels or spark-ignited engines under applicable LSI regulations. Similarly, excursions of genset emissions could combine cumulatively with emissions of diesel woody greenwaste delivery trucks and onsite diesel equipment (e.g. front-end loader, chipper, hammermill, to cause or contribute to localized exceedances of federal and ambient air quality standards in violation of CEQA Guidelines.

The gross simplification and over-generalization of the genset engine emissions lacks the necessary substance and detail expected of the most basic CEQA review, and the notion that simply because the two diesel-designed genset engines will be modified to run on gasifier-produced syngas their emissions will be at low or even non-detect levels is patently invalid---all engines, regardless of fuel, produce NOx, CO2, and other pollutants which can exceed applicable regulatory CI (compression-ignited) and LSI (Large Spark Ignited) emission standards. The IS/MND must provide verifiable emissions-testing proof that the two genset engines—either to run on diesel or syngas, depending on where you look in the document---will operate at very low emissions, and this must occur BEFORE the IS/MND's otherwise poorly-substantiated determinations of less than significant air quality impacts is accepted by decisionmakers.

IV. IS/MND Air Quality Impact Analysis is Inconsistent with CEQA Guidelines Appendix G

Specifically, CEQA Guidelines Appendix G provides that a project could cause a significant air quality impact if it would violate any air quality standard or contribute substantially to an existing or projected air quality violation. While Lake County is in attainment of all state and federal air quality standards currently, the IS/MND provides no specific data, evidence, information, or calculations used to estimate or evaluate for impact significance operational air quality emissions that will result from operation of the Red Hills BioEnergy project (with a planning lifetime of at least 30 years) and thus cannot fulfill CEQA's essential objective of ensuring that the proposed project will not cause or contribute to a significant air quality impact.

Similarly, Appendix G requires that a lead agency "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" (Section 15064(a)), yet the IS/MND does little more than reflect the claim at pg. 19 by the gasifier's manufacturer that it will operate on a carbon-neutral basis. There, it states

> "Trace level emissions to below detectable levels from the sealed-system Artis gasifier result in a carbon neutral system".

However, nothing in this statement or elsewhere in the IS/MND is provided to substantiate this claim, nor does the claim apply to the GHG emissions that should have been (but were not) estimated for the project consistent with CEQA Guidelines Appendix G.

In fact, the project will result in GHG emissions from grid-powered electric equipment that will operate at the site, from diesel equipment that will operate at the site, from diesel delivery trucks that will travel to and from the project site from unspecified locations and which will likely require thousands of miles of travel by heavy-duty diesel trucks weekly, from worker trips, and from other sources of emissions that will result from routine operation of the project over its planning lifetime. The IS/MND has clearly failed to require that the project's criteria and GHG emissions be effectively estimated and evaluated, deferring instead to oversimplified and unsubstantiated claims that fail to fulfill CEQA Guidelines Appendix G or its essential purpose of identifying, disclosing, and mitigating with reasonable, feasible measures the project's significant impacts. The IS/MND should have utilized emissions modeling estimates provided by readily available and commonly used CalEEMod land use emissions program.[2] Its failure to do so reflects a poorly organized, scattershot environmental review that is not consistent with CEQA Guidelines.

[2] CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Further, the model identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user. The model was developed for the California Air Pollution Officers Association (CAPCOA) in collaboration with the California Air Districts. Default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California Air Districts to account for local requirements and conditions.

The CalEEMod land use emissions estimation model should have been used to produce discrete, quantitative emission estimates for specific pollutants that will result from the project's long-term, routine operation. In most cases those quantities would then be gauged for impact significance against quantitative CEQA thresholds of significance developed by the air district with jurisdiction. In this case LCAQMD has no CEQA significance thresholds and the County is in attainment of federal and state ambient air quality standards. Nonetheless, to prevent unacceptable deterioration of local air quality and to prevent emission increases that could result in localized exceedances of applicable state or federal ambient air quality standards, the project's emissions should have been carefully estimated and then compared to CEQA thresholds of significance developed by an adjoining air district with similar air quality conditions. Lake County is adjacent to several air districts with CEQA guidance and thresholds and the IS/MND should have, at the very least, utilized their guidance/thresholds to evaluate the Red Hills BioEnergy project for air quality impact significance.

V. Technical Information Regarding Hammermill and Truck Emissions is Missing from the IS/MND

Technical information regarding the project's use of a hammermill is missing altogether from the IS/MND; the hammermill at the project site will be used regularly to reduce larger diameter chipped material produced at the site or delivered via the 2- 5 truckloads (at 2 – 5 tons per load) noted at pg. 19.

It may also be possible that the IS/MND has underestimated the tons of materials that will be delivered per load to the Red Hills Road site since chipping that occurs on timber salvage and risk reduction projects in the forest or field routinely use ~50' "chip" trucks to cost-effectively transport materials to the cogeneration or biowaste treatment facility, often at a substantial distance. A typical chip truck will transport 25 tons of wood waste chips per load, with materials then dried prior to subsequent use or secondary processing (as will occur at the Red Hills project to a "feedstock moisture level of 10-20%" found at IS/MND pg. 38 and to reduce chip diameter to ¼" avg.).

Deliveries of the 2 – 5 tons per truckload to the Red Hills project identified in the IS/MND, delivered from wood waste and utility line clearance projects located throughout the region—although with originating locations are never specified or even mentioned in the IS/MND--- is inconsistent with standard industry practices and is likely to be cost-ineffective due to equipment, distance, labor costs, and fuel cost-related economies of scale cost factors. Similarly, a major portion of the project's operational emissions will result from daily deliveries by diesel heavy-duty vehicles to the site which will originate elsewhere. Those emissions belong to the Red Hills BioEnergy CEQA review, and therefore diesel delivery truck trip distances and frequencies should have been included in the IS/MND's air quality element. When combined with onsite diesel and dust emissions it is possible that a localized exceedance of PM10 standards or health risk thresholds could occur, and this potential should have been evaluated in the IS/MND.

The IS/MND may have intended to list the industry's commonplace 25 tons-per-truckload delivery value, which would likely produce lower total delivery-related emissions compared with the maximum of 5 daily smaller-

capacity diesel truck trips anticipated by the IS/MND's stated information. The quantity of materials requiring onsite processing that will arrive at the Red Hills project site is critical to the potential for the project to cause unacceptable air quality impacts for the surrounding area—nor is this issue theoretical, as wood waste processing at the site in the earlier months of 2020 by PGE resulted in numerous emissions complaints to the County and the LCAQMD from residents and the mini-storage facility workforce located nearby. Without fully paved roads on the project site, truck deliveries and traffic may, in combination with other project emissions, cause additional emission and dust complaints from nearby citizens.

While the IS/MND notes that it will utilize a hammermill at the site, it fails to provide air pollution-relevant information on its anticipated size, power supply (electric or diesel), process rate, or methods or controls it will employ to limit materials-grinding dust emissions that have in the recent past caused public nuisance[3] and health-related complaints from citizens and residents in the surrounding area.

A hammermill utilizes flat-steel hammers suspended on rotating bars that spin at high speed to quickly reduce larger diameter materials (wood wastes in this case) to meet smaller diameter requirements. Hammermills, tub grinders, and chippers are known to cause dust entrainment in ambient air, particularly when timber harvest, line clearance, or fire salvaged materials, often coated with dirt or ash, are processed.

As noted in the IS/MND, chipped materials coming from the field will average 1.5" in diameter and will require reduction to the .25" diameter required by the Artis gasifier; hammermilling those larger diameter materials will be a common occurrence, and they can be expected to generate fugitive dust emissions which will cause (more[4]) public air quality-related nuisances complaints from nearby citizens and residents. Dust emissions can also be expected to cause deposition of dust materials on crops with the potential to impair growth and value of adjacent agricultural grape growing operations. Based on the anticipated long-term, 24/7/30/12 operation of the proposed Red Hills BioEnergy project---30 years is the typical planning lifetime of a CEQA-subject land use proposal—it

[3] California Code of Regulations Health and Safety Code § 41700—Public Nuisance commonly serves as the baseplate for local adoption of a public nuisance rule by most CA air districts (but not including LCAQMD). The regulation is considered a safety-net measure, permitting the air district to respond to and enforce against air quality-related complaints representing potentially significant or considerable health risks and which are not otherwise covered by a specific, pollutant-based rule or regulation. CCR H&S §41700 states that "no person can discharge air contaminants that cause injury, nuisance, or annoyance to any considerable number of persons or the public, or that endanger the comfort, health or safety of such persons". The number and sustained nature of dust complaints to the County and the LCAQMD resulting from wood waste processing at the Red Hills project site in the first months of 2020 should have been—but intentionally were not---enforced by either entity with use of this public nuisance regulation.

[4] Numerous dust and noise complaints from citizens in the project area have been received by the County and LCAQMD, along with concerns expressed on the record to Planning Commissioners. According to the complainants at the nearby mini-storage, their complaints resulted in statements from the County and the LCAQMD that there was nothing that could be done regarding tub-grinding dust and noise issues at the project site based on what was presented as the superseding authority and jurisdiction of the State. This was both incorrect and classic scapegoating, designed to have citizens believe that local authorities had no control over dust or noise issues emanating from the wood waste processing across several recent months, when in fact local governmental agencies were chiefly and primarily responsible for ensuring that planning and air quality regulatory enforcement duties at the site were applied and enforced. Further, according to complainants, report materials resulting from the one and only site inspection by LCAQMD were never provided despite their requests. They claim that they were also advised to secure the services of an attorney for resolution of their dust and noise complaints.

is highly likely that without highly effective dust controls the project will lead to air quality complaints consistent with those occurring at the site earlier this year.

Hammermilling of woody feedstocks at the Red Hills site will also create dust with the potential to cause local exceedances of LCAQMD visible emissions rule[5], and based on previous project-related dust complaints fugitive dust from processing woody feedstocks at the site likely violated the District's rule along with the provisions of the State's H&S Code 41700- Public Nuisance since nuisance complaints of dust were received from neighbors and raised in at least one County-led public project-related meeting. The failure of the IS/MND to identify and discuss air quality regulations pertinent to the project is unacceptable.

Grinding-related dust contains PM10, a health-based pollutant regulated and monitored locally by the LCAQMD under federal and state Clean Air Act regulations. As noted in a University study[6] of dust generated by hammermilling of agricultural products,

> "Dust suspended in the air is a mixture with varied chemical composition and physical characteristics. Organic dust present in the air with a particle diameter greater than 10 m quickly settles on surface and is called deposited dust. At the same time, smaller fractions are suspended in the air. PM10 fraction refers to particles with the size smaller than 10 micrometers, while PM1.0 to the particles with the diameter smaller than 1 micrometer. Dust with dimensions smaller than 10 micrometers (PM10) enters the respiratory system and those with particle size smaller than 1 micrometer may penetrate alveoli and thus enter bloodstream and all other systems [7–9]. As evidenced by studies, dangerous mycotoxins enter the human body together with inhaled organic dust [10,11]. The presence of dust during the grinding process is very common. Primarily, particles of a greater size are present (PM10), but there are also those with smaller particle size (PM2.5). As the result of their further spread, and frequently mutual collision, their additional fragmentation takes place, which increases the amount of fine fraction PM2.5 and very fine fraction PM1.0."

The proposed project is expected to process woody materials from timber salvage and fire risk reduction projects that contain blue-stain and various types of molds common in decaying timber wastes; chipping and grinding may result in their entrainment in open, ambient air that will then migrate offsite to nearby breathers; this component of the project's potential to create fugitive dust emissions represents increased health risks, especially to those with asthma or other breathing difficulties. No information is found in the IS/MND that discusses sensitive receptors, or mitigations to control dust emissions that can move quickly offsite to nearby residences, agricultural operations, and at least one commercial business.

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[5] LCAQMD Rules and Regulations; Article 1, Section 400 – Visible Emissions; this rule prohibits fugitive emissions from the Red Hills site that cause an opacity impact greater than a Ringelmann 2 (or 40% opacity) for more than 3 minutes aggregated in any hour. Based on witness/complainant accounts of excessive dust, via statements claimed to have been made to County and LCAQMD staff, from relatively recent tub-grinding at the Red Hills project site it is likely that Section 400's opacity limitation was violated regularly.

[6] "Evaluation of Dust Concentration During Grinding Grain in Sustainable Agriculture"; article by researchers P. Sobczak , J. Mazur, K.Zawislak, M. Panasiewicz, W. Zukiewicz-Sobczak; published August 2019 by the Multidisciplinary Digital Publishing Institute. See https://www.mdpi.com/2071-1050/11/17/4572

VI. Air Quality Mitigations are Not Contained Within an MMRP and Contain Flawed Language

Air quality mitigation measures are found at IS/MND pg. 13-14; these measures are flawed since they have not been written into an enforceable Mitigation, Monitoring, and Reporting Plan and because important components have been made conditionally subject to discretionary action by an unspecified "review authority".

Significant impacts from dust generated by the project's operational, routine use of onsite equipment (e.g. front-end loader, chipper, hammermill, etc.) and reliance on daily worker and delivery truck trips are likely, based on the history of dust complaints resulting from woody materials grinding at the project site and because the IS/MND fails altogether to estimate, evaluate, and impose controls to limit dust emissions from any of the number of project-related operational sources.

As an example, materials delivered to the site will contain dust contaminants including residual dirt, dust, and, likely, ash/char on fire-salvaged materials, and fugitive dust emissions will result during chipping, grinding (hammermilling)and conveying materials onsite via conveyor belt and front-end loader. Cyclones are commonly used devices to control dust from wood grinding activities, and water sprays are similarly employed to reduce fugitive dust emissions at chipping and grinding equipment and conveyors. No discussion, however, is found in the IS/MND that identifies these or other mitigation methods that should have been evaluated for use at the site to reduce operational fugitive dust entrainment/re-entrainment.

The IS/MND similarly contains no Mitigation, Monitoring, & Reporting Program (MMRP) element and thus the public has no assurance that air quality mitigations (Air-1 through Air 4) will be made a condition of project approval, and, thereby, providing for the measures' enforcement over the project's operational lifetime.

Significant and potentially significant environmental impacts raised or identified in the project's Mitigated Negative Declaration require that the lead agency adopt a

> "reporting or monitoring program for the changes to the project which has adopted or made a condition of approval in order to mitigate or avoid significant effects on the environment" (PRC §21801.6(a); CEQA Guidelines §15091(d) and §15097)."

The MMRP is the instrument by which impact mitigation measures, identified to reduce the severity of impacts identified and evaluated in the MND, are assured of implementation and enforceability. The MMRP must reflect changes made to the project prior to the decisionmakers' body determination of findings, and it will specifically include enforceable conditions of approval required by the lead agency. The lack of an MMRP in the Red Hills BioEnergy IS/MND is not acceptable since mitigations Air-1 through Air-4, even if not containing the subjective language which will render Air-2 unenforceable, may be quickly ignored once CEQA findings are concluded.

MM Air-2 contains this language which renders the measure subjective and unenforceable:

> "Prior to operation, the primary access roads and parking area shall be constructed, surfaced and maintained with an all-weather surface of asphaltic concrete or concrete ***unless another all-weather surface is approved by the review authority*** to minimize dust impacts to the public, visitors and road traffic. (emphasis added)

No information by the Lead Agency is provided to identify the "review authority" to be responsible for deciding what constitutes an acceptable "all weather surface", nor does the measure identify a schedule by which the alternative would be chosen, applied, and maintained for the life of the project.

Because the county has failed to reasonably and effectively respond to and mitigate dust complaints generated by the preceding wood waste tub-grinding operation at the Red Hills project site, it is reasonable to assume that they do not have the resources or will necessary to review, approve, and then enforce the effective use and maintenance of "another all-weather surface" to reduce fugitive dust entrainment by the trucks and equipment that will regularly operate once the IS/MND is approved with findings. To correct the air quality mitigation defects noted above, the MND must be re-written with precise, enforceable dust mitigation language and requirements, and with identification of the agency that will ensure their implementation and sustained maintenance over the project lifetime.

VII. Conclusion

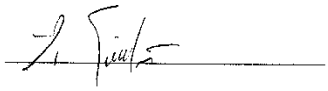
The Red Hills BioEnergy IS/MND contains numerous flaws, contradictions, and omissions of information necessary for the accurate and effective estimation, determination, and mitigation of project-related emissions impacts. Genset emissions are uncertain since no emissions data were provided, and contradictory documentation in the IS/MND shows that the gensets will run either on diesel or syngas. Process rates for project equipment affecting emissions were not provided, nor was an estimate of vehicle miles traveled (VMT) or source locations associated with the daily delivery truck trips that will move woody feedstocks to the site or transport generated biochar to a southern central-valley location. Contradictory or missing information is evidenced throughout the environmental documentation regarding which power source—diesel or electric---for all or nearly all pieces of operational site equipment (e.g. hammermill, conveyors).

The IS/MND has failed to note or discuss the numerous previous dust and noise complaints from the public to the County and the LCAQMD that, as part of the subject property's history, should have been presented as an environmental setting and "baseline" component under CEQA since wood waste processing, virtually identical in nature to what is described in the IS/MND, occurred at the site for several months prior to preparation of the IS/MND.

Based on the proximity of residences and businesses (mini-storage, vineyard(s)), as close as 220' to the proposed gensets, storage yard, and building, the identified up to several heavy-duty truck deliveries to the site daily, 24/7 operation of the two genset engines, and daily operation of diesel equipment that will or could include chipper, hammermill, conveyors, and front-end loader, the IS/MND has failed to evaluate the project's potential to cause localized exceedances of regulated particulate and possibly DPM emissions, nor has it estimated or evaluated any of the project's other emissions-producing equipment, relying instead on gross simplifications and generalizations

obtained from non-expert sources including, likely, equipment manufacturers with an obvious financial interest in the proposed project's approval and development. Dust emissions at the site in the recent past have, via numerous complaints to the County and the LCAQMD, resulted in private and public nuisance complaints that were subsequently not resolved to the satisfaction of local residents, citizens, and taxpayers and which we believe are highly likely to recur under the operational scenario information presented in the flawed IS/MND.

Substantive, thorough, comprehensive revisions including emissions data and operational emissions estimates for truck trips to/from the site, onsite equipment, and gensets should be made to the IS/MND with re-release for subsequent public review and comment.



Greg Gilbert
Autumn Wind Associates

STATEMENT OF QUALIFICATIONS

Greg Gilbert

Autumn Wind Associates

Greg Gilbert is director and founder of Autumn Wind Associates, located northeast of Sacramento, CA. AWA provides expert review, analysis, and estimation of potential air quality and related environmental impacts of proposed land-use development projects involving indirect- (mobile) and stationary (operating under air agency permit) sources of air pollution. He has consulted on air quality land use planning, mobile, and stationary source projects to private and public clients since leaving public service as an air agency manager in 2000. Previously, he was national marketing director for an emissions catalyst products and technology firm with international markets in mobile and stationary sources. Between 1990 and 2000 Mr. Gilbert was employed in two California air agencies, most recently as project manager in the Mobile Source Division of the Sacramento Metropolitan Air Quality Management District (SMAQMD). While at SMAQMD Mr. Gilbert assisted in the development and implementation of the agency's heavy-duty diesel vehicle low-emission incentive program that would later evolve into the Moyer Program; the evaluation of land use-related air quality emission impacts and control strategies, development of California Environmental Quality Act (CEQA) thresholds of significance and mitigations to reduce, offset, or eliminate air quality impacts of new land use; development of air-related CEQA guidance; and creation of the first air quality CEQA mitigation fee program with percentage-based emission reduction mitigation choices provided to the building developer.

Since 2001, AWA has provided consulting expertise to private entities and air agencies, conducted research on construction practices and equipment emissions, assisted with development of CEQA land-use guidance documents and mitigation strategies for CA air quality agencies, and provided analysis and modeling of potential air quality impacts identified primarily in Mitigated Negative Declarations and Environmental Impact Reports for proposed land use development projects throughout California. Mr. Gilbert continues to review and provide expert written and testimony on CEQA- and development-related project-specific environmental analysis, mitigation, and documentation for a wide range of public-, private-, and environmental-sector clients, including law firms specializing in CEQA-NEPA cases.

EXHIBIT C

August 18, 2020

Report on Agricultural Impacts of the Red Hills BioEnergy Project

Clinton Craig Nelson

I. Introduction

The following is a report on the agricultural impacts associated with the Red Hills BioEnergy Project (the "Project"), as well as an analysis and review of the Agricultural & Forestry Resources and the Aesthetic Impacts analyses included in the County of Lake's Initial Study IS 19-09 (the "Initial Study").

The Lake County winegrape growing region is found in the intermountain region of Northern California, north of San Francisco and inland from the Pacific coast. The county is centered on Clear Lake, the largest natural freshwater lake in California, and has a Mediterranean-like climate of hot dry summers and cool moist winters. The county has long focused on agriculture with winegrapes, pears, and walnuts the main crops. The post-prohibition renaissance of the wine industry started in the 1960's and today includes approximately 200 vineyards representing nearly 9,400 acres. The majority of the vineyards in the region are planted within seven TTB-approved American Viticultural Areas that provide a myriad of grape growing environments: Guenoc Valley AVA, Clear Lake AVA, High Valley AVA, Benmore Valley AVA, Big Valley District Lake County AVA and Kelsey Bench Lake County AVA and for the sake of this discussion the Red Hills Lake County AVA (Jones 2014).

The Red Hills AVA is known for rolling mountain ranges comprised of unique volcanic soils, intense solar radiation and picturesque landscapes. The summers are hot and dry with a strong diurnal shift. Following the onset of fall, cooler days and nights help promote and retain intense flavor development. The cumulative effect of ideal climate along with porous soils offer the potential for building a world class winegrowing region.

Temperature is a critical factor in the development of quality winegrapes. If temperatures are excessively high, key phenolic compounds can be inhibited, degraded and even diluted over a larger sink of fruit (Keller 2010, Van Leeuwen and Darriet 2016). The grapevines can better handle extended warm days as long as appropriate cultural practices are implemented. However warm nights can greatly affect winegrape quality, especially during the later stages of development (Koshita et al. 2007).

Growing degree-days (GDD) is a common formula for calculating temperature's influence on plant growth potential and vigor. The vineyards located near this Project align with other high quality areas in nearby regions. For example, the Amber Knolls Vineyard (which is located in the Red Hills AVA) accumulated approximately 3880 GDD. Historically, these Red Hills vineyards

mirror some of the well-known mountainous Napa Valley AVA's like Stag's Leap, and they are slightly greater in heat accumulation than valley AVA's like St. Helena and Calistoga (Jones 2014).

The area, also known for having some of the highest air quality reports in the state (Gearhart 2017), encounters less diffusion of solar radiation from potential pollutants allowing greater interception of light. This is abundance of light help promote secondary metabolites that make the area perfectly suited for ultra-premium winegrape production.

Development of a grapevine begins in the soil. The Red Hills AVA is comprised of well-drained volcanic soils rich in native materials ideal for sugar accumulation while simultaneously driving strong minerality and aromatic potential in the fruit. This region, located approximately 45 minutes north of Napa Valley has relatively thin topsoil and is rich with obsidian rock that lends itself to rapid drainage after rain and irrigation events. The predominant soil type being Glenview-Arrowhead complex which is defined as a well-drained, extremely gravelly loam on obsidian hillsides (SSURGO).

Potentially the greatest and one of the most defining distinctions between the Red Hills AVA compared to other famous hillside vineyard appellations is the increase in uniformity of the parent material. The regional volcanics, obsidian and lava rock, have been deposited as recently as 10,000 years ago (USGS) from eruptions of Mount Konocti and form a continuous crust of porous rock across the vineyard landscapes. This is atypical for most California AVA's, where a vast number of hillside vineyards are composed of alluvial fans where differences in weathered material can impart variability across changing elevations.

With over 9,400 acres planted in Lake County; winegrape production alone accounts for over $70,000,000 in gross revenue. Winegrapes and subsequent wine bottles are defined by their locale, for example a bottle of Napa Valley Cabernet will hold 10-fold monetary value compared to a Lodi appellate Cabernet. Consumers of fine wines depend greatly on the geographic pedigree and established quality of appellations. In the United States, we label these areas as American Viticulture Appellations (AVA). Consumer's dependence on AVA's drives the impetus on maintaining the value of the Red Hills AVA. The appellation process is extensive and involves petitions, fees and licenses through the Alcohol and Tobacco Tax and Trade Bureau (TTB).

The Project Would Result in Potentially Significant Agricultural Impacts

A. Impacts Associated with Dust Migration

The County has received written and verbal testimony concerning existing dust migration issues associated with the use of a tub grinder on the Subject Property. Because the Project does not contemplate mitigation that would assure dust migration would no longer occur, this report provides an analysis of the effects of dust migration on vineyard health, yield, sugar accommodation, fruit quality, and wine quality. This report also discusses potential conflicts between the Project and nearby vineyards, and the potential of the Project to cause the conversation of farmland to non-agricultural use.

Dust has the capability of carrying numerous windborne pathogens that could adversely affect vineyard properties. Such pathogens have the potential to cause insect, mite and fungal infestations.

1. For example, in Northern California's premium wine country, there are two species of dust mites ("Pacific spider mite": *Tetranychus pacificus* and "Willamette spider mite": *Eotetranychus Willamettei*), both of which spread primarily through dust plumes. Both *spp.* Of mites damage the grapevine integrity in similar ways; they use piercing/sucking mouthparts to drain canopy components of carbohydrates and chlorophyll, both of which are essential to photosynthesis and plant health. The damage begins as yellow spots, ultimately resulting in dead (necrotic) areas on the leaves as damage progresses. High populations of the pacific spider mite can render leaves unfunctional with leaf burning/bronzing, with large amounts of webbing. Due to impacts on photosynthesis, both mite *spp.* inhibit the ability of the plant to absorb sunlight, and convert sunlight to energy, decreasing the ability of the vines to grow. This results in the ability of the vine to develop fruit, and creates a subpar quality product for winemakers to vinify. Among other things, advanced mite damage causes wines to lack color, flavor, and mouthfeel astringency. In an environment where the smallest variables make a world of difference in the final product, which is high-quality wine, it is significantly more damaging to have unwarranted disease pressure impact marketability.

   Damage associated with both mites can be managed somewhat by biological controls. However, unwatered dirt roadways and other uses that cause dusts can exacerbate mite infestations. (University of Irvine, Integrated Pest Management Program, *Webspinning Spider Mites* (2019)).

2. Eutypa dieback, Botryosphaeria dieback, Esca, and Phomopsis dieback make up a complex of "trunk diseases" caused by different wood-infecting fungi. Eutypa dieback delays shoot emergence in spring, and the shoots that eventually do grow have dwarfed, chlorotic leaves, sometimes with a cupped shape and/ or tattered margins. Symptomatic shoots are likely to either die back later that growing season or the spur from which they originate will die the following year. Eutypa dieback causes death of spurs, arms, cordons, canes, and sometimes the upper section of the trunk, depending on the location of the wood canker. Wedge-shaped wood cankers form in infected wood and are indistinguishable from those associated with Botryosphaeria dieback and Phomopsis dieback. Dead spurs and shoot dieback caused by Eutypa dieback are canopy symptoms shared in common among multiple trunk diseases, which often occur in mixed infection within the vineyard and even within an individual vine. (*UC IPM Pest Management Guidelines: Grape* UC ANR Publication 3448)

   Typically, trunk diseases are spread through aerosol droplets that disperse during rain events. Spore dispersal is volatilized by rain droplets and infect open wounds

during winter and spring pruning. The Project's wood pulverization, grinding and chipping will likely not only disperse dust, but potentially contribute to the spread of the aforementioned dangerous trunk disease spores. This can and would be catastrophic for adjacent vineyard that would incur substantial vine losses as well as a decrease in vineyard uniformity. Vineyard uniformity, i.e. all vines growing and maturing at the same rate, is critical for driving quality vines. If significant numbers of vines are affected by fungal pathogens that decrease vigor, limit photosynthesis and eventually kill the vine – then growers are at risk of losing clients and being burdened with unmarketable fruit due to fungal pathogen vine decline as well as vine mortality.

The impacts of dust carrying fungal spores and mites has been stated and is well known (Plant Disease Management Guide (2016), Retief et al. (2006), University of Irvine, Integrated Pest Management Program, *Webspinning Spider Mites* (2019)). However, what is less known are the impacts of storing decaying wood near functioning vineyards. Cane borers and termites have been known to both cause detrimental impacts to grapevines and vineyards. The increased probability of having these insects drift from adjacent debris piles may ultimately lead to vine decline, mortality and once again unmarketable fruit.

It is the combination of these avoidable threats to vineyard sustainability that may potentially lead to the land be ill-suited for agriculture as a whole. As a result of this contamination drift, there is a significant likelihood of a scenario where uniquely valuable, ultra-premium winegrape land will need to be converted to something more suitable for an industrial zoned area, which would have a wide-ranging and long-lasting effect on agricultural lands within the Red Hills Appellation.

In sum, the Project has the potential to adversely affect nearby agricultural lands through the migration of dust. This would not only constitute a direct conflict between the Project and nearby vineyards, but also cause the conversion of nearby farmland to non-agricultural uses, as those adjacent properties would be unsuitable for vineyard uses. Based on the foregoing, and due to the lack of mitigation that reduces the above impacts, the evidence shows the Project would result in potentially significant impacts to nearby agricultural resources.

B. The Project Would also Cause Negative Impacts to Agricultural/Aesthetic Resources by Installing Incompatible Facilities that Would Undermine the Lake County/Red Hills Wine Appellations

One of Lake County's largest revenue producing resources, as well as key tourist attractions, is the wine industry that is comprised of a diverse assortment of wine appellations. These uniquely distinct growing regions are led by the Red Hills AVA which produces some of the most sought after winegrapes in the state.

Maintaining and cultivating a sense of *terroir* or landscape is critical to the success of any wine region. To blemish it with an industrial complex will undo years of efforts by local

industry leader's whom are attempting to market the next great wine locale. The wine industry is unlike many others in that it is driven by sensory perception. What people hear, smell, taste and see impact how they take in the appeal of a vineyard or how they distinguish the flavors of wine. Stated another way, the ability for vineyards and wineries to sell and market wine is driven strongly by visual aesthetics and ambience. If that atmosphere is tainted with the sounds and visuals of an industrial complex, that sense of being in a picturesque vineyard and/or winery will be lost. This avoidable disadvantage will negatively affect current businesses in the Project's vicinity as well as surely stymie future growth and commerce.

Lake County is not easily accessible as it remotely located hours from any major cities. Many of the tourists that make the travel to Lake County visit the area to get away from industrialized urban regions. Part of the attraction and ambiance of the Red Hills AVA is the unadulterated rolling hills consisting of either native vegetation or vineyard land. These vistas are unmatched and make this Project even more unharmonious with the location.

Because the Project is located adjacent to vineyards and tasting rooms, the Project has the potential to adversely affect the status of the Red Hills Appellation (and the Lake County Appellation generally), which is critically important to the survival of local vineyards. Among other things, the siting of an industrial facility with attendant noise, dust, and visual impacts would undermine the very qualities that promote the appellation—*i.e.*, its bucolic setting, natural hills, and clean air. As a result, the Project would result in potentially significant impacts to nearby agricultural resources by undermining the Red Hills and Lake County Appellations.

C. The Project Would also Adversely Affect Agricultural Operations by Diminishing the Value of Ancillary Facilities that are Critical to a Healthy Wine Industry

Of course, vineyards are of critical importance to the wine industry, as those lands produce the fruit that winemakers use to manufacture wine. For premium and ultra-premium wine grape lands and appellations, winemakers rely upon ancillary facilities and operations to market and promote their product. Often called tasting rooms, these facilities have become part and parcel of the modern winemaking industry. In addition to promoting a particular vineyard, these tasting rooms—when deployed in a critical mass within an appellation, directly enhance the appellation's prestige to the public.

The Project also has the potential to adversely affect the tasting rooms and wineries, which are critically important for the wineries. Small tasting rooms and wineries depend on return customers for a large portion of their sales. Direct to consumer (DtC) wine sales account for nearly 60% of total sales for wineries producing 50,000 cases or less (Wine Business International (2018)). The majority of Red Hills wineries fall into this category.

Like the Napa and Sonoma Appellations, the Red Hills AVA is primarily visited by customers coming from either the Bay Area or greater Sacramento region in search of a retreat away from urban environments. Winery and/or tasting room customers expect—and demand—a rural atmosphere with unique and aesthetically pleasing visual resources that reflect the agricultural nature of the experience. As a result, successful wineries and tasting

rooms are typically complemented by a rural, bucolic setting. They are often surrounded by vineyards, rolling hills, farmhouses, and sweeping rural vistas. Adjacent urban uses—and in particular industrial uses, such as energy plants—detract from the rural, bucolic nature of the experience, and have a significant potential to undermine the success of the facility. This will not only result in significant adverse aesthetic impacts for winery/tasting room visitors, but also significantly affect agricultural resources by undermining the ability of local producers to engage in DtC wine sales, which represent more than half of the total sales of small to medium-sized wineries.

II. CONCLUSION

As currently configured, the Project has the potential to cause significant impacts to agricultural and aesthetic resources that are of critical importance to the wine industry in Lake County and the Red Hills Appellation. Dust associated with the Project has the potential to cause bacterial, insect, and fungus infestations, all of which diminish the value of nearby vineyards, and the capability of the vines to produce high quality wine. In addition, the placement of the Project near productive vineyards and popular tasting rooms as a significant potential to undermine the Lake County and Red Hills Appellations, which are important to the survival and growth of agricultural uses within the County and the Red Hills Area.

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Clinton Craig Nelson

Director of Vineyard Operations
ClintN@BeckstofferVineyards.com
707-349-3499

Curriculum Vitae

EDUCATION:

California State University, Fresno

Masters of Sciences: Viticulture and Enology

- *Outstanding Graduate Student Nominee 2015*
- *University Fellowship Award 2013-2015*
- *Research Assistantship Award 2014*
- *American Vineyard Foundation Scholarship 2013-2015*
- *Graduate Golden Key Club Member*

California State University, Chico

Bachelors of Sciences: Biology

- *Omicron Theta Epsilon* Honors Society
- *Dean's Honor Roll*
- *Golden Key Club Member*
- *Special Problems Research*
- *SMART Grant Award 2009-2012*

AREAS OF EXPERTISE:

- Grapevine fertility
- Winegrape chemistry
- Sensory evaluation of wine and winegrapes
- Grapevine canopy management
- Horticulture and agriculture pests and diseases
- Special problems

WORK EXPERIENCE:

Director of Vineyard Operations — March 2016 – Current: Beckstoffer Vineyards – Red Hills

- Directed cultural practices, pest control, fertility and harvest
- Managed team of vineyard managers, PCA's, viticulturists and supervisors
- Built and executed entirety of budget for 1800 acres of North Coast Cabernet; including development, farming and harvest
- Helped drive luxury tier fruit from Lake County that went into vineyard designated $80-100 retail bottle prices
- Implemented precision irrigation strategies with the goal of limiting vigor and driving grape quality
- Lead liaison with winemakers and grower relations reps
- Orchestrated over 500 acres of new developments from design to preparation of; ripping, disking, soil amendments, trellis and irrigation, and clonal/rootstock selections
- Managed viticulture team that performed field data collection for lab analysis
- Renovated viticulture lab and delivered Brix, TA, pH and YAN to clients on bi-weekly cadence from veraison to harvest
- Designed and directed experimental research plots
- Worked alongside Dr. Kaan Kurtural (UC Research Specialist) to design, implement, and promote one of the most comprehensive Cabernet Research Trials in the state
- Primary liaison between company and sustainability certifying agency CSWA, CCOF, CAWG, County Agencies, State Agencies, and UC Davis

Grower Outreach Specialist — Dec. 2015- March 2016: E&J Gallo Winery - Acampo, CA

- Educated external growers on vineyard best practices to increase fruit quality, while maintaining yield
- Go-to expert on phenological based timing of cultural practices of water stress for white and red varietals
- Lead researcher and statistician for outreach department
- Conducted field data collection and lab analysis
- Designed and executed experimental research plots

- Primary liaison between company and sustainability certifying agency CSWA
- Guided over 150 contracted growers through the CSWA sustainability programs
- Promoted innovative vineyard mechanization
- Assisted in advancement of GIS and Remote Sensing technologies
- Special problems researcher; first to identify Pinot Gris Virus as well as Sudden Vine Collapse in the Lodi AVA
- Irrigation, canopy management and vine nutrition specialist

Principal Viticulturist **Dec. 2014-Dec 2015: Jack Neal and Son, Inc. - St. Helena, CA**

- Primary liaison between company and certifying agencies CCOF, Organic CDFA and Fish Friendly Farming (FFF)
- Managed and scheduled irrigation; delegating work to team of irrigators and supervisors
- Arranged fertigation, soil and foliar nutrient applications
- Pest and disease identification
- Selected rootstock and scion combinations dependent upon soil type and climate of varying AVA's in Napa County
- Conducted sampling of soil, water and plant tissue to monitor nutrient status
- Special problems director

Graduate Research Assistant **Sept. 2013-May 2015: California State University of Fresno**

- Initiated and managed 80-acre commercial research project
- Implemented trials on effects of nitrogen application, pruning systems, rootstock selection and deficit irrigation
- Work with analytical equipment such as High-Performance Liquid Chromatography and SEAL-Analytical AQ2
- Proficient statistical analysis using SAS, SPSS and Microsoft Office Suite
- Manage and coordinate team of interns, student workers and lab assistants with ranch leaders and PCA's; work cross-functionally with winemakers, enologists and chemists

CSU Research Assistant **Feb. 2013-Sept. 2013: California State University of Fresno**

- Conduct research directly under supervision of Viticulture Research Chair PhD S. Kaan Kurtural
- Manage research projects with San Joaquin Valley and Central Coast
- Work on aspects of vineyard mechanization, sustainable viticulture and grape chemistry

Publications and Symposiums

- February 2020 Farm Bureau/Winegrape Commission Speaker **'Cultivating the Wine Industry'** Kelseyville, CA
- December 2019 WinExpo presentation '**Effects of Climate Change on Red Winegrapes'** Santa Rosa Fair Grounds, CA
- September 2018 Speaker **'AgVenture – Women in Agriculture'** Kelseyville, CA
- February 2017 Scientia Horticulturae ***'Precipitation Before Bud Break Affect the Response of 'Zinfandel' Yields and Berry Composition to Production System'***
- December 2016 Irrigation Scheduling Seminar, Lodi, CA
- June, July 2016 Irrigation Field Seminar 'Best Practices Demonstration,' Acampo, Modesto and Waterford, CA
- May 2015 CCOF Panel Discussion on Organic Farming, Rutherford, CA
- May 2015 CCOF Field Tour, Neal Family Vineyards, St. Helena, CA
- August 2015 American Journal of Enology and Viticulture ***'Applied Water and Rootstocks Affect Productivity and Anthocyanin Composition of Zinfandel in Central California'***
- April 2015 American Journal of Enology and Viticulture ***'Anthocyanin Composition of Merlot Grapevine is Ameliorated by Light Microclimate and Irrigation in Central California'***
- March 2015 VMB Defense Seminar for Carneros Grape Growers, Adastra Vineyard, Carneros, CA
- Dec. 2014 Research Review, Bronco Wine Company, Ceres, CA
- Nov. 2014 Industry presentation for West Coast Grape Growing, Fresno State University
- Aug. 2014 Grape Day Presenter **'Interactive Effects of Pruning Systems and Deficit Irrigation on 'Zinfandel'** Fresno, CA
- June 2014 65th Annual American Society of Enology and Viticulture **'Rootstock Selection and Deficit Irrigation'** Austin, Texas
- June 2014 65th Annual American Society of Enology and Viticulture **'Pruning Systems and Deficit Irrigation'** Austin, Texas
- Nov. 2013 Industry presentation **'Effects of Fertilizer, Canopy Management and Rootstock on Wine Composition'**, Fresno State University

OTHER ACTIVITES

- Board member for Lake County Farm Bureau
- Lake County Winegrape Commission Research & Education Committee Member

EXHIBIT D

Scotts Valley Band of Pomo Indians

Red Hills Bioenergy Project
7130 Red Hills Road, Kelseyville
Assessor's Parcel No. 009-021-070

SUPPLEMENTARY PROJECT DESCRIPTION
04/21/2020

Three issues, aesthetic, noise and dust, appear to be the main concerns discussed at the Planning Commission's meeting held on April 9, 2020. The following information is intended to address these three concerns.

Aesthetic

Attached are photos that show the placement of the proposed 2,000 square foot building in relation to its visibility. The first 4 photos were taken from four points of view. The first (#1) is inside the property looking north towards Highway 29. The next three are from the west side of Red Hills Road at the main entrance to the property, north of (#2), south of (#3 and mid-point of (#4) the entrance. These last three vantage points reflect that the full building is not in view at any point in time while traveling north or south on Red Hills Road. The natural tones proposed also allow the structure to blend into the site. In addition, as originally proposed, there will be an 8 foot high slatted wire fence placed around the building. The fence will further assist in blending the building into the site from offsite vantage points. From Red Hills Road moving south, it would appear that only the roof will be visible plus a small portion of the top of the building side, if at all.

Additional photos have been taken from vantage points south and north. The two southern vantage points were the immediate adjacent Beckstoffer Vineyards and the second from the entrance to the La Jour Winery. In neither photo can one see the location of the proposed building site. From La Jour the predominate structure seen is the PG&E substation. From the north vantage point on highway 281, again the proposed building will not be in view. And the most predominate structure viewed is a large building to the south west of 281 and south of 29.

There is a single photo taken of the two-story home that is on the west side of Red Hills Road and south of the property's main entrance. It provides a view of a building larger in size and width than the proposed building as seen on Red Hills Road.

Finally, the last photo shows a large building, painted all white, located south of Eagle's Nest and readily seen when driving west on 29 and south on 281.

Noise

PG&E's current full operation at Red Hills via its subcontractor, Donahoo, will end on May 9. Prior to the end date, they will need to operate the Bandit model 3860 tub grinder, for a

maximum of 4 days between May 4 to May 8. After the end date Donahoo will need time to clean site and restore it to its former state. This will NOT require the use of the tub grinder.

The Bandit 3860 operates at a noise level between 135 dba and ~115dba. Scotts Valley's proposal is to be well under this noise level and operate within the county standards, as measured at its property line. To achieve this reduced level, the following additional mitigation measures will be taken.

- The required fuel, forest material will be chipped off site in large pieces averaging 1" to 3" in size. It will then be transported to the site and unloaded in the storage area. The system's two reactors require approximately 4.0 tons of fuel daily. This equates to 28 – 30 tons brought to the site weekly and would equate to 6 – 5 ton loads transported and unloaded. Each load would be held in a separate pile and not expected to be higher than 12 feet.
- This large chip will undergo a second chipping to provide for a smaller more uniform size between 1/4 - 1/16 inch, required for processing. The time required to complete this process is estimated to be 2 – 4 hours per day 6 days a week, excluding Sunday
- To perform this second chipping operation, a 6 inch chipper will be employed. This is a revision downward from the original 9 inch chipper. The 6 inch chipper operates at approximately 100dba. It will be located and additional 1,000 feet from the tub grinder site or a total of not less than 1,800 feet from the eastern property boundary. This additional distance will further reduce the noise level demonstrated in the tub grinder's operation.
- The chipper's operating location has been revised to be placed within 10 feet of the east side of the building vs the original concept of working in the storage yard. The chipper will be placed between the fence and the building with both acting as sound attenuation media.
- As a precaution we have also developed a rapid mitigation response plan that would allow us, should it prove necessary, to further sound isolate the chipping process. This would involve the use of portable fencing and acoustic absorption blankets.
- The chipper will be filled with a front loader tractor, ideally with a cubic yard bucket. Current estimates dictate that 16 to 20 loads will be required to chip the requisite tonnage. The tractor's reversing alarm will be either the lowest level sold or muffled to achieve the lowest noise level allowed by regulation.
- The Gillette Generators (catalogue cut included in primary report) function at 79 dba at a distance of 23 feet. When installed inside a Level 2 enclosure with selective catalytic reduction/residential silencer, the dba rating drops to meet the established noise standards.

In summary, we are confident that our site design and location will allow us to achieve the required 55db or less at the impacted residential properties.

<u>Dust</u>

Neighbors also raised concern about dust because of the amount that emanates from the tub grinder. In discussing this concern with the current operator, it was noted that the tub grinder has

a 30’ high boom that more easily releases dust into the environment. The Project’s chipper will have a release point of not more than 8’ high. In its revised location, behind a fence and close to the building, both structures will act as a wind buffer. Operating the chipper in the morning hours is proposed, when wind patterns are historically calm. And since the operation of the chipper is to reduce the size of the pre-chipped material plus its farther distance from the residences in line with the prevalent wind pattern, the far lesser amount of dust from the operation is not envisioned to reach these residences.

Scotts Valley staff also met with Clint Nelson, Director of Vineyard Operations Beckstoffer Vineyards, on site on the morning of April 20, 2020.

That conversation provided clarity on the location and operation of the plant. He asked about the height and material for the fence. He also suggested that at a future date a screen of trees be considered along the western boundary line to promote the area’s scenic corridor goal.

In a telephone conversation with Commissioner Brown, his question related to the project’s impact on cultural activities. Currently, the cultural area noted on the plot plan is used one day of the year in Septembers and historically on a Saturday or Sunday. Attendance can be up to 200 visitors and vendors. The day begins at 11 am and ends at 7:00. The parking lot accommodates the majority of the vehicles and with the rocked area left by PG&E’s subcontractor there is adequate room for any overflow. As noted above there will be no chipping proposed on weekends and the production process emits little noise. If requested by the Tribal Council, the production plant can be closed for maintenance for the day and this would result in even less noise. Ideally the cultural site will be used for even more frequent smaller events sponsored by the Tribe. Requested accommodations will be honored for such events.

Finally, two points warrant clarification.

This operation is a resource driven activity. It requires forest material as its input and therefore it is logical to place the operation close to the input source in order to have the least amount of carbon emissions from transport of the material, particularly in light of the collective effort to reduce carbon emissions.

Also, it must be noted that this revised operating process will eliminate a secondary original idea to provide a location where community residents could bring brush material free of charge. The material was to be chipped and used as additional fuel thereby promoting a carbon negative result for this brush material. Reducing chipping in terms of hours and frequency will bar this service.


Image 1


Image 3


Image 4


PRIVATE
PROPERTY
NO
NO
PARKING

EXHIBIT E

Generating Renewable, Green Energy, Protecting Air & Water Quality, Creating Local Jobs

SCOTTS VALLEY BAND OF POMO INDIANS
BIOENERGY/BIOCHAR FACILITY

Scotts Valley Indian Energy, LLC | Red Hills Road Project | May 7, 2020

The Scotts Valley Band of Pomo Indians through its tribally owned company, Scotts Valley Energy Company, LLC, (SVEC) is submitting this response to the appeal of its bioenergy/biochar production project as submitted by Clint Nelson, Beckstoffer Vineyards, but said to be representing the "Red Hills AVA Stakeholders Alliance" comprised of vineyard, winery, and property owners in the vicinity. We do not know specifically who this stakeholder alliance represents, but we remain willing to speak with them directly.

About This Project

In the most current version of the Community Economic Development Strategy for Lake County, one of the opportunities listed is to, "Expand alternative energy systems" with a listed goal of, "Energy Independence & Sustainability: Work to develop energy independence and other sustainable living practices." This project meets both of those goals.

Imagine utilizing a patent-pending technology to generate electricity in a closed system (no smoke, no particulates) utilizing waste wood trimmings instead of burning wood in an open burner (old technology) to generate electricity, or just pile burning, that sends smoke and particulates into the air we breathe on a regular basis January - May every year.

Imagine creating BioChar - a type of charcoal created in a high-temperature system - from that waste woody biomass that has been used for thousands of years to amend agricultural soils to retain soil moisture and nutrients, lessening the amount of fertilizer needed on crops, or utilizing this biochar to filter sediment- and nutrient-laden waters before reaching Clear Lake - a state-designated "impared waterway" for nutrients.

Imagine creating local jobs to mitigate hazardous vegetation (that otherwise can become fuel for uncontrolled wildfires) who bring that vegetation - tree trimmings under power lines, previously burned brush in past wildfires - to a centrally-located facility pre-chipped.

Imagine no more: The Scotts Valley Energy Company, LLC, (SVEC), in partnership with Omni BioEnergy, are developing a patent-pending closed system that can produce from 50 - 500 kilowatts of green, renewable energy, produce biochar, and protect the air and soil quality in Lake County, as well as offer microgrid opportunities to high-demand users.

BioEnergy

Bioenergy is an important tool to reduce fuels for wildfires and restore carbon to California's forested and agricultural lands. Decreasing woody biomass on forested lands - both public and private - can reduce the devastating impacts of wildfire, protect public health and safety, and provide local jobs and economic development. Woody biomass can provide the source for 24x7 power generation to meet the state's renewable electricity goals.

California's forested lands provide a critical carbon sink that is quickly going up in smoke. Wildfire now causes two-thirds of California's black carbon emissions, a powerful climate pollutant and threat to public health. For the first time in decades, Lake County no longer is in the top 20 Counties for the cleanest air due to wildfire smoke. A single large wildfire can emit as much climate pollution as several million cars and a bad wildfire season can produce as much climate pollution as the state's entire transportation or energy sector in a year.

Utilizing Waste Biomass Provides Jobs and Economic Development. Woody biomass can save millions of dollars in avoided wildfire damages and fire-fighting costs while producing jobs and economic development:

- Hundreds of millions of dollars in avoided wildfire damages;
- Tens of millions of dollars in reduced firefighting costs;
- Local income, tax revenues, and energy supply;
- Twice as many jobs per megawatt as energy from natural gas;
- Economically valuable byproducts such as biochar that can be used to increase crop yield, improve soil health and conserve water.

BioChar

The conversion of biomass into charcoal and/or energy is as old as civilization. It is well understood that controlling aeration during burning optimizes the process for energy versus charcoal production. Modern pyrolysis and carbonization technology offers significant improvements in terms of energy efficiency and levels of pollution over traditional charcoal production technologies. The Major Use Permit SVEC seeks will utilize the latest advancements on this technology to produce biochar and bioenergy in a closed pyrolysis system to maximize energy production output, produce biochar, and protect the environment.

Pyrolysis is a chemical process that converts decomposable organic matter into biochar, a relatively inert organic material. In other words, the process of biochar production changes the chemical composition of the organic material so that it more slowly converts back into atmospheric CO_2 compared to the feedstock from which it is derived under comparable environmental conditions. Even though both the original feedstock and the resulting biochar will eventually convert back to atmospheric CO_2, the timeframe of when this will happen for biochar is thousands of years, while the timeframe is only a couple of years for the original feedstock.

Since it is believed that incorporating biochar material into agricultural soils also improves soil quality and productivity, soils are considered to be ideal sinks for biochar. This concept is illustrated in Figure 1:

Evaluation of the opportunities for generating carbon offsets from soil sequestration of biochar

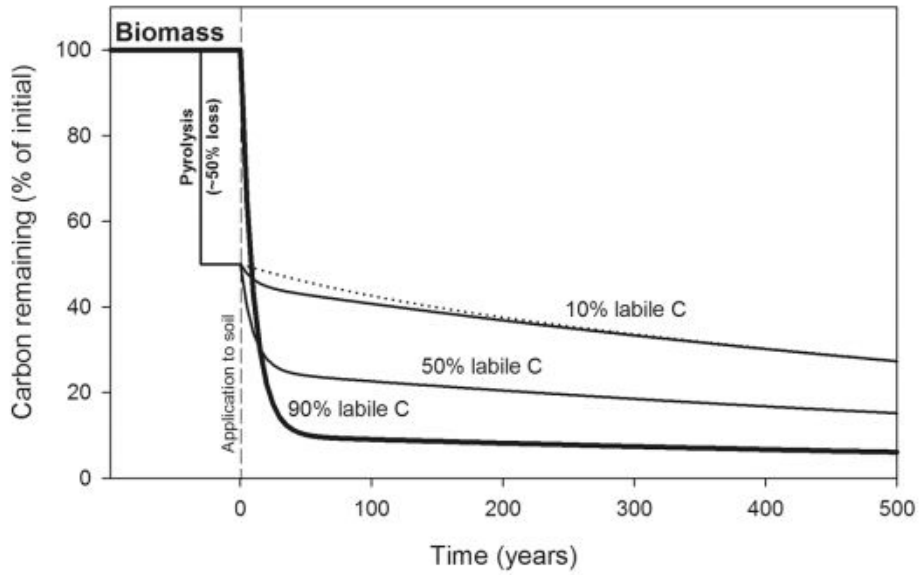

Figure 1. Conceptual model of C remaining from biomass using a decay model with a MRT of 10 years for the labile C pool and 1000 years for the stable C pool, but different proportions of labile C. Source: Lehmann and Joseph 2009

The thick line represents the baseline decomposition of the original biomass, which contains up to 90% labile carbon (C). The thin lines represent scenarios of conversion of biomass into biochar, with different levels of chemical recalcitrance, ranging from 50% labile C to 10% labile C. Carbon losses by pyrolysis average approximately 68% at high temperature and 30% at low temperature (depending upon feedstock and production conditions).

This locally-produced biochar can be available for local agricultural producers, as well as water treatment applications.

Appeal Rebuttals

"Appeared to be Fast-Tracked" - SVEC submitted its Major Use Permit application in February 2019. It was not until July a following supplemental information submission that the Community Development (CD) staff provided approval to proceed. It was an additional six weeks before SVEC staff was informed that the Initial study was not scheduled until late fall. Accordingly, it was agreed that SVEC would commission and pay an independent planner to complete the Initial Study (IS) which was submitted on October 29, 2019. It took another 90 days for the CD staff to post the public comment period in the state clearinghouse and approximately another 30 days to

place the permit before the Planning Commission. There was no public comment submitted by the "Red Hills AVA Stakeholders Alliance" during this time.

"Nonchalantly Declared" - Neither Mr. Nelson, nor any member of the "Red Hills AVA Stakeholders Alliance" attended or provided public comment at any stage of this Major Use Permit including the April 9, 2020 session of the Lake County Planning Commission. The nearly 90-minute discussion of this project covered all major issues brought forward by neighbors, specifically noise and dust, as well as aesthetic concerns presented by two of the commissioners. Only four Commissioners were present at this first meeting, so it was agreed to continue final action on the project until April 23 to give SVEC time to review and address the issues raised. Prior to the second meeting held on April 23, SVEC staff prepared and submitted a supplemental project report outlining clarifying information on how the project would address three major concerns noted above (see report: Supplemental Project Description). Additionally, SVEC staff held an on-site meeting with Mr. Nelson and via correspondence with the first neighbor to raise concern, Mr. Mark Barnes, who has provided his support for the project.

"Deliberately Abusing the Zoning System" - The zoning ordinance as set forth in the General Plan is intended to be a framework in which unknown future development can occur. Within the Rural Residential (RR) zone a number of non-family services are allowed including power generation. One can only assume that the creators of this zone did not envision its sole use would be family structures.

As noted in the Initial Study and Community Development staff's report, the RR area of this parcel is 25 acres with another 10 acres zoned commercial highway, yet there are severe limits placed on the number of family units allowed in an RR zone. The intent would seem to be a meshing of surrounding properties with different zones by limiting future development via a very low density factor, i.e., a ratio of structures to acreage. This project meets this density ratio. It will encompass less than 1 acre or 1/25th of the RR area.

Of this small size, the majority will present as undeveloped because it is intended to hold low height piles of wood chips as they await processing. This feature will easily blend into the existing walnut orchard, the most recent prior use of the property. The major concern appears to be the project's proposed structure - a building with a height of 16' and a 2,000 square foot footprint, and will be shorter and smaller than the closest home southwest of the project and clearly much smaller than 4,000 to 5,000 square foot 2-3 story home that this property's current value suggests.

"Industrial Complex" - This concept conjures up images of the Allegheny Valley at the height of steel production with multiple factories taking in train loads of coal and iron ore to be heated in kilns that are kept heated 24 x 7, billowing smoke and ash into the environment with 50' smoke stacks. The small size of the bioenergy plant proposed does not meet the standards of an industrial complex. The main operation occurs fully contained within an enclosed building, the size of a medium-sized house. The chip storage area will be shielded from Red Hills Road by the building and the proposed 8' fence. To be considered a "blemish" both the building and storage area would have to dramatically stand out from multiple vista points. This is not the case as was demonstrated before the Planning Commission.

"Fuel Burning Facility & Smoke" – One of the key considerations in the development of this project was and is environmental impact. Carbon waste to green energy, planet stewardship and community improvement are all key components of our strategy. The Artis systems have no open flames, no atmospheric emissions and are designed to be carbon neutral to carbon negative. The appellants appear not to fully understand the concept of pyrolysis, the core process used in our systems. Simply stated this process heats a carbon-based material in an environment of limited oxygen. Oxygen is one of the three elements required to "burn" material. Without it, burning cannot occur. In the small bioenergy plant proposed in this project, forest material is reduced to a very small size less than ½ inch in all three dimensions. It is loaded into a chamber that is SEALED and HEATED to between 600 and 900 degrees Celsius. This high temperature in absence of oxygen causes the carbon-based material to be reduced to its primary elements. 80% - 85% is in the form of a gas, known a syngas, primarily hydrogen and carbon monoxide, and the remaining 15% - 20% is in the form of carbon, referred to as biochar. Because this process does not "burn" the forest material and because the process is in a sealed chamber intended to capture the syngas without producing any emissions - *no smoke occurs* - hence no smoke enters the environment.

Unlike open pile burning, which vineyard, orchard, and forested landowners and stewards do on a regular basis in Winter and Spring causing air quality alerts from particulate-laden smoke and ash - and just as importantly carbon into the atmosphere which contributes to climate change - the proposed bioenergy process qualifies for the state's carbon neutral standard because of its positive impact on the environment.

When the biochar is used as a soil amendment, the process meets the carbon negative standard which means that carbon is being removed from the atmosphere by virtue of being sequestered back into the soil, where it first originated. It is a building block of what is called "carbon farming" - sequestering carbon in soils.

"Dust" - SVEC staff are sensitive to and recognize that chipping of forest material can lead to the creation of dust. However, as described in the attached supplemental report, measures have been taken to reduce the volume of dust to below significant levels. These measures include bringing in only pre-chipped material that will be processed a second time to meet the small size standard noted above. This process is a modification of the original process whereby non-commercial grade forest material would be brought for both primary and secondary chipping. Additionally, the chipping process will occur between the building and the proposed 8' fence again with the objective of containing dust. As noted at the April 23, 2020 Planning Commission meeting, a water spray system can be used if the dust release is greater than anticipated. The property already has a chip-sealed drive and paved parking lot to further minimize dust.

"Noise" - Again as noted in the supplemental report, additional steps have been taken to mitigate the impact of noise on neighbors. These include first changing the entire acceptance of forest material to a pre-chipped state thereby eliminating the primary chipping process, and second to reduce the hours to no more than four hours per day with no chipping on Sunday. We believe that the secondary chipping process can occur in less than four hours a day, however, we have not had any chipper manufacturer give us a more accurate time frame. Given that most wine tasting rooms open after 10 am, it is proposed to start chipping between 7:30 and 8:00 a.m. with a goal of

completing the process prior to their opening. SVEC staff have already committed to not chipping on Sunday and will work to reduce hours on Saturday to the maximum extent feasible.

As noted above the secondary chipping process will occur between the building and fence area which should act as a buffer to noise. Again as noted, in the supplemental report, we have developed a rapid mitigation response plan that would allow us, should it prove necessary, to further sound isolate the chipping process. This plan includes use of portable fencing and acoustic absorption blankets.

"Generators" – The two (2) Gillette Generators (catalogue cut sheet included in primary report) function at 83 dba at a distance of 23 feet unenclosed. When installed inside a Level 2 enclosure designed with a selective catalytic reduction/residential silencer, the dba is reduced to 79 dba, well within the established noise standards. At 150kW each, these are not big generators. Each unit fits inside its own separate, noise reducing enclosure. Given the distance to the nearest neighbor, approximately 1,500 feet, it is highly unlikely that noise will be heard at their residence, outside or inside.

"Trucking" - The plant requires four tons of chipped material daily. The optimum plan would be to take delivery of one-five ton load each day for 3 days and two-five ton loads on the fourth and fifth days, presumably in the late afternoon; and, no deliveries on the weekends. On the output side, the biochar will be held in enclosed bags until five tons are amassed. At 15% of the input weight, (four tons), this equals 1,200 lbs. per day, or four days to acquire a five-ton load. For purposes of clarity one may assume two biochar pickups per week, with each accessing the project via highway 29. Thus, the total number of weekly trips for both input and output material is 9 trips or an average of 1.3 trucks per day. Given this low shipping demand it is hard to imagine when "trucking" will create a negative impact on the neighbors or scenic corridor.

"Scenic Corridor" – This issue was addressed at the first Planning Commission meeting on April 9. As noted in the supplemental report, the project's building will be seen for a distance of not more than 75 yards with the center of this distance being the center of the main entrance to the project's property. No other vantage point on either the north-south axis or east-west axis has been identified from which the building or storage area could be seen. The building will be in earth tones to blend into the surrounding environment. In addition, SVEC is proposing that a quilt block mural be installed on the front end of the building, which is the most viewed elevation seen traveling northbound on Red Hills Road.

In Summary

SVEC staff firmly believe that the small scale of this project will have none of the negative impacts presented in this appeal. Conversely, SVEC believes the project will support fire risk reduction efforts conducted by utilities, homeowner associations, fire safe councils, fire prevention agencies, forested land owners (both private and public) and residents.

Another positive side effect of this project would be an increase in local power grid resilience. As part of this project SVEC will be funding significant upgrades to the local grid as well as the addition of distributed bioenergy generation. These collectively add to local power availability and reliability.

This project also will support and protect the environment through a reduction in the release of carbon, provide local jobs and support local agricultural operations including winegrape vineyards if owners elect to use biochar as a soil amendment.

5/5/20, 4:15pm screenshot of live stream from the AlertWildfire webcam atop Mt. Konocti showing open pile burning of native chaparral cleared to make way for vineyards along Soda Bay Bay Rd/State Hwy 281 across from the Ely Stage Stop (in the foreground).

Instead of open-pile burning and sending smoke and particulates into the air and releasing carbon, this biomass could have been used to generate bioenergy and biochar in a facility a mile away.

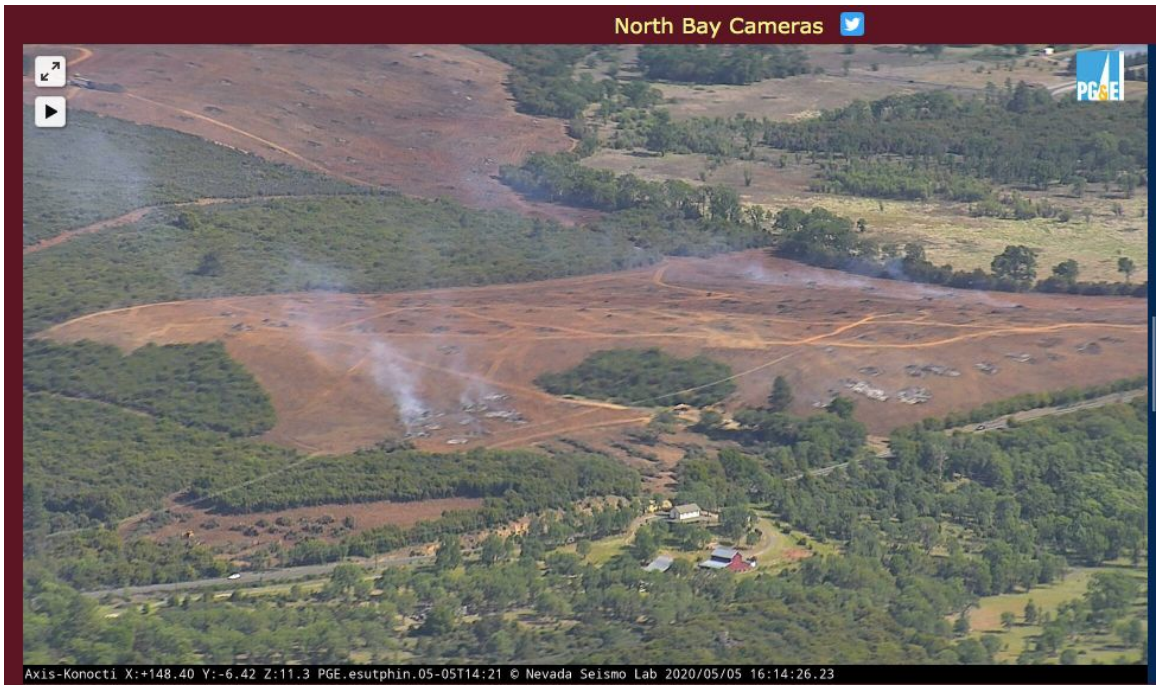

EXHIBIT F

Image 1. View from westerly vineyards looking east at A. Proposed BioFuel Plant Site, B. Wood Storage area

Image 2. View from northerly vineyards looking south at A. Wood Storage Area

Image 3. View from northerly vineyards looking south at A. Proposed Biofuel Plant Site

Image 4. View from Red Hills Road, directly across from residential property and vineyards A. Proposed Biofuel Plant Site

Image 5. View from Siegler Springs Road (near winery), A. Proposed Biofuel Plant Site