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Via email:

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Re: Appeal of Planning Commission Approval of AG Forest Wood Processing Bioenergy Facility Major Use Permit UP 23-05, Initial Study/Mitigated Negative Declaration IS 23-10

Dear Honorable Supervisors, Mr. Guintivano, and Ms. Hall:

This office represents Larry Kahn, Barbara Morris, and a neighborhood organization with respect to the above-referenced appeal. Mr. Kahn appealed the County of Lake Planning Commission's approval of the AG Forest Bioenergy Project, including the Commission's approval of Major Use Permit UP 23-05, and adoption of the Initial Study/Mitigated Negative Declaration ("IS/MND") IS 23-10 (collectively, the "Project"). Attached to this letter as Exhibit A is an expert report from Dale La Forest of Dale La Forest & Associates, describing the undisclosed and unanalyzed noise impacts of the Project, which are significant and for which no mitigation measures have been proposed.

This office has submitted two requests for records under the California Public Records Act (with one follow up request asking why no documents were produced for several of the categories), and we have received a small number of records in response. I have attempted to meet and confer with County Counsel's office, but that office has refused to respond to my request to meet and confer and has also refused to respond to my phone message. Currently, the County is violation of the Public Records Act for refusing to provide records in response to our requests, and it is a further violation of my clients' due process rights to continue with the appeal hearing without providing the documentation necessary for the appellant and other members of the public to fully understand the circumstances.

In addition to the stunning violations of the California Environmental Quality Act ("CEQA") (Public Resources Code § 21000 *et seq*. and the CEQA Guidelines, Cal. Code Regs. Tit. 14, § 15001, *et seq.*) and the State planning laws, described in detail below, the County's attempt to lease the Project site to the applicant for $100 per year for an industrial use violates the explicit terms of the grant funding agreement that the Lake County Flood Control and Water Conservation District entered into with the California Department of Water Resources. The County failed to record a conservation easement on the property as required by the grant agreement and has leased the property without the required State approval. Lake County used over $1.5 Million from the State under a grant agreement and purchased the property where the Project will be located. Then failed to perform any of its obligations under the grant agreement, handing a portion of the property off to the Project applicant in what amounts to a gift of public funds.

We request that the Board of Supervisors act to protect the public from a project that will harm the environment and be detrimental to human health, particularly those with homes near the Project site, and decide to live up to the terms of the grant funding agreement to avoid a breach of contract that will be subject to State enforcement.

A. The County does not have Authority to Lease the Project Site to the Applicant for a Biochar Facility.

On August 28, 2003, the Lake County Flood Control District[1] (the County), entered into The State of California the Resources Agency Department of Water Resources Agreement between the State of California Department of Water Resources and Lake County Flood Control and Water Conservation District under the Flood Protection Corridor Program ("Grant Agreement"). Through this Grant Agreement, the Department of Water Resources ("DWR")

[1] The District was created by special legislation (specifically, California Water Code Appendix Section 68-1 *et seq*.), and the Lake County Board of Supervisors serves as the ex officio Board of Directors of the District, and so the activities of the District are the activities of the County.

provided over $5 Million dollars to the County for the Flood Protection Corridor Program. The funds were used by the County for, among other things, the acquisition of property.

The parcel where the proposed Project is located was acquired by the County with the grant funds, and a portion of it (42.6 of the approximately 115 acres) is now under a purported "Lease" agreement between the County and the Scotts Valley Energy Corporation ("SVEC").

We submitted a Public Records Act request seeking documents related to the Grant Agreement and the acquisition of the Project site, and we were first informed that no responsive documents existed, suggesting that the County had failed to document the receipt of the millions in grant funds and the expenditure on the Project site. We have since been informed that the County is looking for responsive documents.

Section 3.B of the Grant Agreement States that the Flood Control District ("District") "shall develop a program to acquire fee title…and restore wetland habitats and adjacent riparian and upland areas and improve water quality…." Section 3.K states that the District "shall not sell, abandon, lease, transfer, exchange, mortgage, hypothecate, or encumber in any manner whatsoever, all or any portion of the subject properties without prior permission from the State." We requested documentation of the permission from the State for the County to lease the Project site to the applicant, and as noted above, we were told no documents existed, and now there is apparently an effort underway to look for the documents. We do not believe that the County requested or received permission from the State. We have been in contact with DWR representatives who are now investigating the County's use of these lands.

Section 3.M of the Grant Agreement states that where the District acquires fee title using grant funds, "an appropriate easement providing for non-structural flood benefits and wildlife habitat preservation shall be simultaneously conveyed to a regulatory or trustee agency or conservation group acceptable to the State." Again, we have received nothing in response to our request for records, but our research into the title of the Project site reveals that the County never recorded the required conservation easement on the Project site after it was acquired with funding from the State's taxpayers.

The County's lack of maintenance of the Project site and failure to comply with any of the requirements of the Grant Agreement is an ongoing breach of the Grant Agreement. Further, giving the applicant the use of a taxpayer funded property for $100 per year, with no obligations for maintaining the property pursuant to the Grant Agreement, and no permission from the State, is an unconstitutional gift of public funds. (Cal. Constitution, Article XVI, Section 6.)

For these reasons alone, the Board of Supervisors should gain control over this situation and bring the County back into compliance with the DWR Grant Agreement and its obligations under the State Constitution.

B. The Project is Not Appropriate for the Project Site and the Surrounding Land Uses.

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

In addition to the fact that the County was required to place a conservation easement on the Project site at the time it was acquired with State grant funds, the property is subject to a Williamson Act Contract and APZ zoning, neither of which allow for a biochar facility that does not meet the definition of a "power generation facility" under the Lake County Code.

The County asserts that the Project can be approved with a Major Use Permit pursuant to its Zoning Ordinance. (See December 12, 2024 staff report ["Staff Report"], p. 11.) This is inaccurate, while a "power generation facility" may under some circumstances be developed in a APZ zoning district, the Project will supply its own power needs but will not be a power generation facility as that term is defined in the County Code. Here, the Project site is zoned both APZ and Scenic Combining (SC). The scenic analysis in the IS/MND is cursory at best and is addressed further below.

The critical problem for the County is not just the APZ zoning that precludes non-agricultural uses, but also the Williamson Act Contract itself. The Contract for this property is something that the County has not been able to locate in response to our Public Records Act requests. That does not mean that the Contract does not exist, it just means that the County staff who worked on analyzing the Project and its impacts did not take the applicable Williamson Act Contract into account. Williamson Act Contracts are often tailored to the property, and at this time it is completely unknown what the Williamson Act Contract for the Project site contains.

There is nothing in the Government Code that would allow the construction of a power generation facility of any kind to be built on Williamson Act land, and the County's APZ provisions state that a "power generation facility" may be constructed on APZ lands with a major use permit. The County glossed over this in the staff reports and IS/MND, but the proposed biochar facility does not meet the definition of "power generation facility" in the County's Code.

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. Finally, the record shows that there will be no energy transmission, aka "power generation", from the Project. It will power its own functions, but no power will be transmitted elsewhere. The Staff Report states vaguely that power from the facility "may be available to

downstream users in the future." Like much of the Project description, vaguely described future possibilities do not meet CEQA's requirements.

The record does not contain evidence that the Project is a power generation facility, there is no evidence of the contents of the applicable Williamson Act Contract, and so there is insufficient evidence to support a conclusion that the Project could even be permitted through a Major Use Permit.

2. The Board Cannot Make the Findings Necessary to Approve Proposed Major Use Permit 23-05.

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, 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. 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.

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.

1. Inaccurate Project Description and Baseline Conditions.

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. As noted above, the IS/MND and the Staff Report acknowledge that the Project is a piece of a much larger forest thinning and biomass project that the County us undertaking, and yet the rest of the overall project is not described. There has even been discussion at public meetings of the multiple sites that actually make up the whole of the project. Such information is necessary to evaluate whether the Project would have significant environmental impacts, and the whole of the project should have been analyzed to avoid impermissible piecemealing.

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.)

In this case, the Project description is unstable and omits critical information. The failure to describe the "whole of the project," resulting in piecemealing of the environmental review is discussed in greater detail below.

The Project description includes a denial of the existence of a blue line stream that appears on the soils map. (IS/MND, pp. 3 and 29.) The IS/MND refers to Figure 3 as the "Soils Map," but Figure 3 is the Quaternary Faults Map, and there is no Soils Map included. The IS/MND states that there was "careful investigation", and the stream could not be located, but neighboring landowners identified a "drainage ditch." (*Id.*) This is not analysis; it is an attempt to ignore a water body for convenience. Emails produced by the County included discussion among County staff regarding the biological assessment, noting that no wetland delineation was done for the Project site, and warning that the Project design creates a potential for sediment to wash into the drainage ditch. Whether it is referred to as a drainage ditch or a stream, it flows directly into

Rodman Slough, and then downstream with waters that end up in Clear Lake. Neighboring landowners have submitted ample evidence of the existence of the stream, and the Project plans will place driveway construction immediately adjacent (no setback) to the stream.

On April 10, 2022, the U.S. Department of Commerce, Economic Development Administration ("EDA") issued a Record of Environmental Consideration ("REC") for the project site. (The REC is attached as Exhibit B.) The REC concluded that there is "a potentially jurisdictional agricultural drainage on the western side of the access road adjacent to the project site." (REC, p. 5.) The REC concludes that "to ensure that no impacts to the drainage would occur, all project construction activity would be located **at least 100 feet east of the existing drainage ditch**." (REC, p. 5, emphasis added.) In stark contrast, the IS/MND and the Project materials show that construction will occur within less than 20 feet of the drainage ditch. (*See* application and site plans.) The IS/MND includes the cryptic and misleading "mitigation measure" stating that "prior to ground disturbing activities within 100 feet of the drainage ditch" the applicant would conduct pre-construction surveys for various listed species. (IS/MND, p. 29.) In other words, the Project applicant has every intention of violating the terms of the REC, and the County has agreed to let them do so by including a mitigation measure that has not a single thing to do with water quality. The applicant should be precluded from using the EDA grant funding in way that violates the REC.

The IS/MND also contains no information at all about the quantities of air emissions the Project will produce during construction and operation. 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 Project. The IS/MND 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. With respect to Greenhouse Gas Emissions ("GHG"), the IS/MND simply states that the Project will "produce a small amount of GHG emissions". (IS/MND, p. 40.) The County's environmental review for the previously proposed Red Hills Bioenergy Project (Major Use Permit UP 19-05) was similarly flawed, and the flaws were well documented in the expert report from Greg Gilbert of Autumn Wind Associates. We request that all documents that comprised the administrative record of proceedings for the Red Hills Bioenergy Project be included in the record of proceedings for the present Project. Many of the same errors and shortcomings exist in the CEQA review for this Project, and the County's own files contain information that could have resulted in a more defensible CEQA document here but unfortunately did not.

The lack of investigation, data collection, and disclosure is also true for noise impacts, as explained in the La Forest Report. Among other things, there is no mention of ambient/existing conditions against which noise impacts should be evaluated. (*Id.* at 7.) Nor is there an adequate description of nearby sensitive receptors, or how far those receptors are from the Project operations. (See *id.* at 6-7.) The IS/MND includes two paragraphs for the entire noise analysis, and the "substantial evidence" is no evidence at all: "Sound levels have been estimated and fall

under the county's acceptable levels for agriculture operations. The sound level of the power generation facility will be under the decibels A levels for non-business hours to the property line." (IS/MND, p. 51.) It is almost beyond our ability to submit a comment on the noise analysis in the IS/MND because it is so woefully inadequate, it makes no logical sense. The La Forest Report reveals that the noise "analysis" the County intends to rely upon simply ignored the existence of (and failed to disclose in the Project description and baseline information) a dozen sensitive receptors, ignored the actual equipment that would be operated onsite, and came up with a "conclusion" that noise would be insignificant based upon no substantial evidence at all.

Lastly with respect to the Project description, in his letter of December 11, 2024, Brian Hall described in detail the flaws and inconsistencies in the architectural and structural building plans. The plans included a snow load for 8 to 15 feet of snow. Clearly an erroneous leftover from plans for another project. The electrical notes in the plans are for an unrelated solar project in San Benito County. The highway encroachment "design" is based upon real estate maps that lack critical design information. The Project plans are an important part of the Project description, and in this case, the plans are a collage of notes, plans, details, and specifications that include reliance on the British Columbia Structural Code, wind and snow loads calculated in metric units, and the number of trusses in the structural analysis is inconsistent with the number shown in the building elevation. This is the epitome of an unstable, inaccurate Project description.

2. The Improper Piecemealing/Segmentation of Environmental Review.

In this case, the Project description omits any explanation of the other elements of the forest thinning biomass network that the County asserts the Project will be "central" to. (Staff Report, p. 4, and the Lease Agreement with SVEC.) The Project description includes details for only one other facility, and this the "Donahoo facility at 8605 Bottle Rock Road, Kelseyville CA 95451, 21.2 miles away." The Project description asserts that this is where most of the woody biomass will be "pre-processed" into wood chips before being transported to the Project site. (Staff Report, p. 5.) This office made a public records request for the permit(s) for the Donahoo facility, and we have not received any documents. Our inquiries have revealed that the Donahoo facility is no longer operating (in response to one phone call we were told it has been closed for over a year), and so the Project description is misleading and inaccurate. If the Donahoo facility does not have a permit to operate, or has ceased operations for other reasons, this is a critical gap in the Project description. Where will the woody biomass be "pre-processed"? If the biomass comes to the Project site without being pre-processed, this will result in a significant increase in the Project impacts, and the IS/MND must be amended and recirculated at the very least.

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." (Guidelines § 15378.) Here, the IS/MND does not describe

the whole of the action, but rather vaguely refers to the Project as being the "central" hub of a larger forest thinning and biomass project. The Project here is just one component of an overall project, and piecemealing the environmental review is a violation of CEQA.

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 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. v. County of Orange* (1981) 118 Cal.App.3d 818, 830.)

Here, the Project would allow a completely different and much larger project than that described in the IS/MND. As noted above, the Project has been described in the Lease agreement between the County and SVEC, in the IS/MND, and in the Staff Report, as the "central" hub of a County-wide forest thinning and biomass project. The County has refused to identify the other components of the Project (other than the Donahoo facility, which appears to be defunct). In producing documents in response to our Public Records Requests, not a single document was provided regarding the overall forest thinning biomass project. By proceeding in this fashion, the IS/MND seeks to impermissibly piecemeal or segment environmental review.

3. Inadequate Description of the Environmental Baseline Conditions.

As noted above, and as explained in the La Forest Report, the IS/MND includes no mention of ambient/existing conditions against which noise impacts should be evaluated. (La Forest Report, p. 7.) 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 6-7.) Due to this failure, the IS/MND's analysis of noise increases is incomplete and inaccurate. (*Id*.) Due to the failure to adequately describe baseline conditions, the IS/MND is invalid. There is also no baseline information for air quality or GHG emissions.

4. No Substantial Evidence to Support Qualifications of Project Professionals.

On December 11, 2024, Brian Hall submitted a comment letter to the County stating that the County had failed to comply with the Business and Professions Code requirements mandating that County staff to verify the licensure and signatures for all architectural, engineering, and land surveying documents as a condition of approval for all permits. Transparency in this process of verifying qualifications is part of assuring the public and the decisionmakers that the Project description and design is accurate and finite. We included in our

Public Records Request a request for documents showing that the County had verified the licensure and signatures of these professionals, and the document production included no documents responsive to this request. Thus, there has apparently not been an effort to verify the licensure of the professionals.

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 be denied on that basis. But, if the County were to consider the Project, the IS/MND is not the appropriate level of environmental review 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. (Guidelines, § 15063.) The lead agency makes this determination based on what is called the "fair argument" standard. (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 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. (Guidelines § 15064(f)(1); see also Pub. Resources Code § 21080(d).)

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. (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(c)(2); Guidelines §§ 15064(f)(2) and 15070(b).) Here, substantial evidence supports a fair argument that an EIR is necessary:

2. The Project Will Result in Significant Noise Impacts.

This comment letter is accompanied by the May 10, 2025, 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.*)

The La Forest Report explains that the IS/MND failed to identify and describe all of the sensitive noise receptors located near the Project site. (La Forest Report, pp. 2 and 6.) In fact, the IS/MND omitted mention of ***most*** of the sensitive receptors near the Project site. (*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. (La Forest Report, pp. 2 and 8.) CEQA requires the lead agency to evaluate the magnitude of the increase in noise levels, and the IS/MND never examined noise increases. Because the IS/MND does not examine these factors, it is insufficient under CEQA. (See *id.*)

The La Forest Report exposes the Project's noise impacts, which will be significant during construction, significant during operation, and will even be significant ***indoors*** for some nearby residences. (Report, pp. 3 and 16.) The Project will result in devastating impacts to nearby residential uses, and this could include health impacts. 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 Plan. (CEQA Guidelines, Appendix G, Subd. XI(a).) As a result, to the extent the County considers the Project for approval, a full EIR should be prepared.

3. The Project Will Result in Significant Impacts to Agricultural Resources.

The Project would negative effect agricultural recourse in numerous respects. First, the Project site is prime agricultural land, and while the IS/MND attempts to minimize this impact by stating that it is only five acres and the buildings could later be removed, the fact is that the 42 acres of leased property where the Project will be located is all prime agricultural land, and it will not be used for agriculture again for the foreseeable future, if ever. The property is also under a Williamson Act Contract, as discussed above, and the County has been unable to produce a copy of that contract in response to our Public Records Act requests. The potential impacts to 42 acres of prime agricultural land is evident in the record because it is under the protection of a Williamson Act contract that was never even discussed in the environmental review.

4. The Project Will Result in Significant Air Quality and GHG Emissions.

The County's own staff and internal documents reveal that the Project may have a significant impact on air quality, including the health of nearby residents. In the small number of documents produced by the County, we received a copy of an email from Laura Hall to "Steve" on February 8, 2024, stating that an Air Quality and Greenhouse Gas (GHG) Report with a Health Assessment would be required for the project because of a residence within 1,000 feet. Despite the Senior Planner's assessment that a such a report and Health Assessment were required for the Project, no such report or analysis was done. A copy of this email is attached as Exhibit C.

Not only did the County fail to prepare the analyses County staff determined were required, the paltry analysis in the IS/MND contains no baseline information and no analysis of

Project emissions, so there is a complete failure under CEQA's disclosure requirements, and also a complete lack of any evidence to support a conclusion that the air quality impacts will be less than significant. 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 contains no analysis of emissions from diesel-powered equipment, delivery trucks, etc., simply providing the bare conclusion that the GHG emissions would be a "small amount." This does not meet CEQA's standard.

Additionally, the record shows that a health risk assessment was required, as it was the opinion of County professional staff, and the Project will generate emissions that were not discussed in the IS/MND. For example, 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. This shortcoming was also evident in the Red Hills Project review, and we urge the decisionmakers to review the record of the Red Hills Project to better understand the tremendous health and air quality risks associated with biochar facilities. As in that case, there is substantial evidence here that the Project will have significant air quality impacts and GHG emissions, and a full EIR is required.

5. 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. (Guidelines § 15126.2(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 address this issue at all. It does not include baseline data, and it does not include any information about the quantity or nature of Project air emissions. This is critically important here, as the County has received evidence that similar operations have

adversely affected the health of nearby residents and employees, and this was pointed out to the County in detail in the Red Hills Bioenergy Project case.

The significant health impacts that will likely result from the excessive (and entirely unanalyzed) noise impacts on several nearby residences have also not been disclosed. There is substantial evidence in the record to support a fair argument that the Project's impacts to human health will be significant, and a full EIR is required.

6. 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 the Upper Lake-Nice 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.

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

7. The IS/MND Fails to Disclose and Analyze Wildfire Risks and Impacts.

The IS/MND includes a few sentences regarding the wildfire risk and impacts associated with the Project. (IS/MND, p. 61.) Despite the fact that County staff and commenters raised concerns about the storage of dry, woody material on the Project site, and the potential for this to be a fire hazard within a few hundred feet of adjacent homes, the IS/MND does not include even one word of analysis of the risks, but simply states that a gate accessible to fire responders and a water storage tank will be provided as mitigation, so there will be no significant impacts. (*Id.*) The question is, what is being mitigated? As the IS/MND does not discuss the risks or impacts. The "conclusion" in this section is based upon not a single piece of evidence, much less substantial evidence.

Adding the risks of ignition associated with the equipment that will be used in Project operations, the risks of human ignition by introducing humans (workers, truck drivers, visitors) to the Project site, and adding a tremendous amount of combustible material to the Project site are all ignored and left out of the IS/MND. Oddly the IS/MND itself concludes that the mounds

of fuel that will be stored on the Project site are "combustible materials" and it would possibly take "hours to extinguish while there may be other emergencies in the service area needing attention." (IS/MND, p. 61.) This potential impact is not discussed or analyzed, but it is evidence that the Project will have potentially significant impacts to wildfire risks, and a full EIR is required.

8. The Project's Cumulative Impacts will be Significant.

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." (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." (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 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. It is striking that the cumulative impacts analysis concludes that there are no past, present, or future projects to analyze, and yet the IS/MND and staff reports refer to the other projects that will make up the whole of the forest

thinning and biomass project in the County. These other projects were not even mentioned in the cumulative impacts analysis.

Because the County did not evaluate cumulative impacts in any meaningful way, and the evidence in the record shows that the overall forest thinning and biomass project contemplated by the County will have cumulatively considerable impacts, the IS/MND cannot be adopted.

E. The Project Is Inconsistent with the Lake County General 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(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. 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. This violation is particularly notable in light of the County's failure to record the mandatory conservation easement on the Project site at the time it was acquired with State grant funding.

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

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 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. There is no transmission system available in this location to "possibly" deliver electricity to "downstream" users. As such, it is inconsistent with this policy.

General Plan Policy HS-1.1. As set forth in detail above, the Project will create health risks to nearby residence because of excessive noise, and it will also expose neighbors to unanalyzed health risks associated with diesel emissions and particulate matter. The IS/MND tries to hide the fact that there will be chippers and shredders running on site, spewing dust into the air, while trucks and diesel equipment emit exhaust. The County staff's own statement that a Health Assessment was required shows that the Project is inconsistent with this Policy.

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 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 Policy OSC-2.7. The Project does not contemplate sufficient landscaping to shield the development from the scenic roadway. As such, it 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 Goal AR-1. The Project undermines nearby agricultural uses. As such, it is inconsistent with this goal.

General Plan Policy AR-1.2. The Project undermines—rather than supports— on-site and nearby agricultural 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 Policies AR-2.1, 2.2, 2.6. The Project undermines agricultural uses. As such, it is inconsistent with these policies

Upper Lake-Nice Area Plan Objective 3.4.1c. (Preservation of agricultural lands with a soil type I through IV). The County reviewed the Project site under the LESA model, and failed to analyze the fact that the Project site is protected by a Williamson Act Contract, and did not even consider consistency with this Objective. The Project contemplates an industrial land use on Prime, Contract-protected agricultural lands, and it is inconsistent with this Objective.

Upper Lake-Nice Area Plan Objective 4.4.1b. The Project is inconsistent with this Objective because it brings an Industrial and commercial activity with the potential to emit toxic, hazardous, or nuisance air contaminants within dangerous proximity to residential areas, and other sensitive receptors.

Upper Lake-Nice Area Plan Objective 4.4.2b, 2f, and 2e. The Project is inconsistent with this Objective because it introduces a noise producing use adjacent to residences and, as shown in the La Forest Report, does not comply with the County noise standards. The Project is inconsistent with this Objective.

F. Conclusion

For the reasons set forth above, the IS/MND fails to meet the requirements of CEQA. The Project is also inconsistent with the governing land use plans, and the lease for the Project site violates the Grant Agreement between DWR and the County. For each of the foregoing

reasons, the County should not adopt the IS/MND for the Project and should decline to approve Project. If the County considers the Project, it must be reviewed with a full environmental impact report to adequately evaluate the numerous potentially significant effects of the Project, to fully mitigate each of those negative environmental effects, and to consider project alternatives.

Sincerely,

Marsha A. Burch

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Exhibit A

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NOISE IMPACTS REPORT

Initial Study/Mitigated Negative Declaration for
Ag Forest Wood Processing Bioenergy Project
Major Use Permit UP 23-05
Initial Study IS 23-10

Dear Ms. Burch: May 10, 2025

At your request, I have prepared this Report in response to the County of Lake's IS/MND for the Ag Forest Wood Processing Bioenergy Project ("Project"). My qualifications are attached hereto as "Attachment 1". 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 construction work, its wood chipper operation, and its heavy equipment with backup beepers and wood chip delivery truck use of the Project site.

Because operational noise impacts that are 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.

INTRODUCTION

THE HUMAN COST OF NOISE: AN INTRODUCTION TO THIS NOISE IMPACTS REPORT

The following report details the significant noise impacts anticipated from the proposed Ag Forest Wood Processing Bioenergy Project and argues for a more thorough environmental review. Beyond many technical specifications and decibel levels, it is crucial to consider the human dimension of such a Project. The introduction of industrial noise into a community is not merely an inconvenience; it is an intrusion that can fundamentally alter the quality of life for those who call the area home. Their homes are more than just structures; they are sanctuaries where they seek rest, rejuvenation, and a sense of security. The persistent presence of excessive noise can shatter this peace, transforming a haven into a source of stress and anxiety.

The World Health Organization and numerous studies have well-documented the detrimental effects of noise pollution on human health. Constant exposure to loud or disruptive sounds can lead to a range of physical ailments, including sleep disturbance, cardiovascular issues, and increased stress hormone levels. Emotionally, the inability to escape invasive noise can foster feelings of frustration, helplessness, and a diminished sense of control over one's own environment. For families, particularly those with young children or individuals who work from home, the impact of excessively-loud, daytime neighboring industrial noise can be especially profound, affecting concentration, learning, and overall well-being.

This report will demonstrate that the noise generated by the proposed Project, from construction activities to daily operations involving wood chippers, heavy machinery, and truck traffic, poses a substantial threat to the health and emotional security of nearby residents. It underscores the necessity of robust regulations and diligent oversight to protect individuals from the proven harms of excessive noise. The quiet enjoyment of one's home is not a luxury, but a fundamental component of a healthy and secure life. Therefore, a comprehensive evaluation of noise impacts and the implementation of effective mitigation measures are paramount before a Project of this nature can proceed. The concerns of the neighbors are not just about noise; they are about preserving the sanctity and tranquility of their homes and their right to a peaceful existence.

EXECUTIVE SUMMARY

1. INADEQUATE PROJECT DESCRIPTION: The IS/MND violates CEQA due to its *failure to identify and describe the sensitive receptors located near the Project site*. Without this information, it is impossible to assess whether the Project's noise emissions could significantly impact these sensitive uses. The proximity and type of sensitive receptors directly influence the potential significance of noise impacts. The IS/MND fails to describe the locations of nearly all of the homes and businesses that may be exposed to this Project's excessive noise emissions. (See p. 6 of this Report.)

2. FAILURE TO PROVIDE ANY AMBIENT NOISE LEVEL MEASUREMENTS: The IS/MND *does not provide any measurements of ambient noise level conditions* at neighboring homes and businesses. CEQA, as well as the General Plan, require that such ambient noise level measurements be disclosed in an Initial Study. Such measurements are essential for neighbors to comprehend the potential harm they might experience during Project activities. (See p. 7.)

3, FAILURE TO EVALUATE NOISE LEVEL INCREASES: CEQA requires this IS/MND *to have evaluated the magnitude of the increase in noise levels* this Project may create at sensitive receptors. The public needs that information in order to determine if Project noise will be significant when compared to existing ambient noise levels. But the IS/MND never examined such noise level *increases*. That failure violates CEQA and is important because this Project will generate significant noise level increases at neighboring homes and businesses. (See p. 8.)

4. FAILURE TO PROVIDE VITAL INFORMATION AND TO LIST ALL EQUIPMENT: The IS/MND fails to describe all the equipment the Project would use that would create significant noise. It then fails to describe how loud such equipment would be when measured at known distances. Without that information, the public cannot review the IS/MND's conclusions or independently calculate the Project's noise level exposure at nearby homes. (See p. 11.)

5. EXCESSIVE NOISE LEVELS DURING CONSTRUCTION AT SENSITIVE RECEPTORS: Construction-related short-term noise levels at neighboring homes and businesses will be significant. Noise levels at a dozen homes occurring during the Project's driveway construction would greatly exceed the County's maximum-allowed noise standards. Site development and construction activities could generate serious noise level increases at these homes of potentially 10 dBA louder than existing ambient noise levels.

   Additionally, at some homes, *the magnitude of the increase in noise levels* during this Project driveway construction work would be significant when compared to existing ambient noise levels at those homes. (See p. 12.)

6. EXCESSIVE INTERIOR NOISE LEVELS FOR NEARBY HOMES: Not only would construction noise levels outside these neighboring homes be excessive, but those noise levels reduced while passing through exterior walls could be harmful as well inside these homes during the Project's driveway enlargement and other construction work. The Project's 24-hour averaged noise levels, when measured inside at least seven nearby homes with their windows closed could exceed the maximum-allowed noise standards set by the General Plan and State regulations. These interior noise standards are intended to protect against unreasonable noise impacts within residences including during daytime Project work. Excessively loud Project noise, when heard within these homes, could significantly harm some neighbors' stress levels, annoyance levels and health, especially when those neighbors would be helpless to protect against such noise intrusion. (See p. 16.)

7. EXCESSIVE NOISE DURING DAILY PROJECT OPERATIONS: This Project would create significant noise impacts during its on-site operations. (See p. 18.)

   A. Use of a single **chainsaw** during Project operations will create noise levels that exceed County noise standards for at least eight of the nearest homes. (See p. 21.)

   B. Constant use of a **loud wood chipper** in this neighborhood may produce noise levels that exceed permissible standards. The County prohibits this Project from generating daytime noise levels greater than 55 dBA $L_{eq\text{-}1\ hr.}$ at residences and 60 dBA $L_{eq\text{-}1\ hr}$ at commercial buildings. But just the use of a wood chipper may create noise levels applicable to least nine homes, the pre-school, the casino, the tribal office building and the adjacent Ag building that will exceed these noise standards and thus violate the County's Noise Ordinance. (See p. 23.)

   C. Operation of a **front-end loader** during Project operations will create noise levels that exceed County noise standards at nine nearest homes. At distances less than 1,400 feet to these homes, the noise level from use of a front-end loader could be about 55.7 dBA $L_{eq\text{-}1\ hr}$. That noise level at those homes would exceed the County's maximum allowed noise standard of 55 dBA $L_{eq\ 1\text{-}hr.}$ It may also create a significant noise impact at one home by increasing its ambient noise level by more than 5 dBA. (See p. 24.)

D. The use of **backup warning alarms** during chip truck deliveries and front-end loader operations will create noise levels exceeding the County's Zoning Ordinance's maximum daytime noise standards at all nine nearest sensitive receptors. (See p. 26 and Table 4.)

E. **Operation noise** levels at the Upper Lake Park will exceed the County's noise standards. That Park is located about 1,070 feet northwest of the Project's noise sources. The County's General Plan sets a limit of a *Maximum Allowable Noise Exposure level* of 65 dBA CNEL for "**normally acceptable**" uses at a neighborhood park or playground. This Project's noise from a wood chipper, a tub grinder, a front-end loader, and a chainsaw could generate a noise level of **66.2 dBA CNEL** at the Park when that combined noise is added to the existing noise in the Park. That resulting noise level, deemed by the General Plan to be "**normally unacceptable**," would exceed this General Plan noise standard. Thus the General Plan recommends that at that excessive noise level, the Project's development should generally be *discouraged*. That law is triggered because the IS/MND does not include a mandatory, detailed noise analysis and because needed insulation features (like a noise wall) are not included to protect the public using this Park. (See p. 30.)

F. **Operation noise** levels may exceed the County's noise standards at the office building with tribal offices located about 690 feet to the west of major Project noise sources. At that close distance, the noise level from Project operations would cause a significant noise impact. Yet the IS/MND never analyzed that serious risk to those office users that could harm their business work and personal health. (See p. 32 and Figure A.)

G. **Operation noise** levels at the Running Creek Casino located about 1,010 feet to the northwest of major Project noise sources may also exceed the County's noise standards for commercial uses. (See p. 33 and Figure A.) The Zoning Ordinance allows up to 60 dBA $L_{eq\text{-}1\ hr}$, but Project operation noise at the casino could be as high as about 68.2 dBA $L_{eq\text{-}1\ hr}$. (See p. 33.)

H. **Operation noise levels** could be excessive and unmitigated at the adjacent Ag Building located to the west of the Project's major noise sources less than 300 feet away. While the County's Zoning ordinance allows daytime noise levels only up to 55 dBA $L_{eq\ 1\text{-}hr.}$ at such agricultural facilities, this Project may generate very seriously excessive noise levels there of about 82 dBA $L_{eq\ 1\text{-}hr.}$. (See p. 34.)

G. Project operation could generate noise levels at over a dozen neighboring homes within 2,000 feet that may exceed the County's 55 dBA $L_{eq\text{-}1\ hr.}$ noise limit. (See p. 34.)

8. The IS/MND underestimates the noise impacts by failing to consider that the Project will generate low-frequency noise that is more intrusive than County noise standards recognize. (See p. 35.)

9. The IS/MND fails to include any noise mitigations to reduce this Project's noise problems. The County previously imposed noise mitigations for the applicant's Red Hills BioEnergy project, but at this Highway 20 site with more affected neighbors has not done so. (See p. 36.)

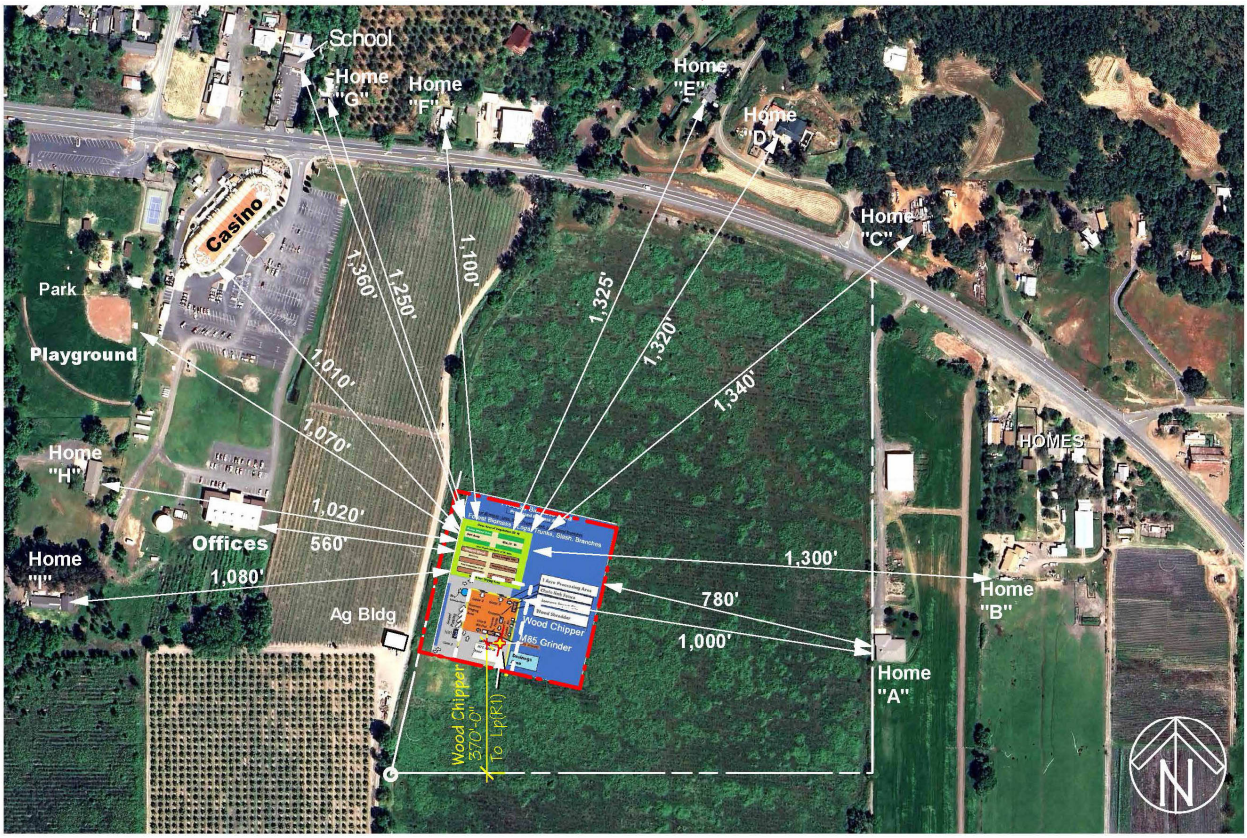
10. The IS/MND violates CEQA against piecemealed environmental review by not evaluating the full scope of all noise impacts of Project operations along with other of its operational segments from off-site wood chip processing operations. It claims that "*there would not be a lot of noise*" because wood chips would be processed elsewhere, Yet such processing operations may be transferred to this Highway 20 site instead, resulting in more noise than estimated. (See p. 38.)

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 to properly evaluate such noise impacts before this Project's approval process is allowed to proceed.

IS/MND Fails to Describe Location of Many 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 with all the noise-sensitive receptors, nor even a text description that accurately informs the public where they are with their distances to the Project's noisy operations. Only the closest two homes, the pre-school and one "Ag Building" are discussed in the IS/MND. The Noise Impact section of the IS/MND, pages 50 – 51, does not indicate where any sensitive receptors are located. Nor does the IS/MND's noise section indicate the basis for its conclusion of a less-than-significant noise impact. It fails to even mention that a Sound Level Analysis map exists elsewhere where buried on page 88 of the IS/MND, leaving the public largely in the dark. The IS/MND should have at least described that nearby sensitive receptors likely to be affected by the Project's noise include, among others, these homes on this map that we have labeled A, B, C, D, E, F, G, H, and I:

Figure A **Distances from Noise Sensitive Receptors to Wood Deliveries, Unloading. Chip Storage Loading, and Chainsaw Noise**



NOISE SENSITIVE LAND USES 0 200' 400' 600' 800' 1000' 1200' 1400' 1600' 1800'

[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.

The IS/MND fails to include important information relating to the equipment that would be used for the proposed Project. Specifically, the IS/MND fails to identify and describe the noise-generating equipment of the equipments' noise source levels at varying distances. The IS/MND should identify: (1) how many of each will be in operation for the Project, (2) the equipments' operating assumptions (e.g. estimated daily hours of operations), and (3) noise source levels for each piece of equipment. This inadequacy of the IS/MND's Project Description contravenes CEQA and undercuts the legitimacy of the remainder of the IS/MND, therefore an EIR must be prepared to remedy these deficiencies.

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

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*." [2] 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, Noise Element, p. 8-6.) To assess the noise environment, ambient [3] noise level measurements are required of conditions near existing homes. But the IS/MND contains no ambient noise level measurements at all. Nor does it contain a credible acoustical report prepared by anyone with sufficient expertise to support its conclusions; but that is required by the General Plan.[4] In the absence of any ambient noise level measurements and an acoustical report prepared by a qualified acoustical consultant, 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 IS/MND's exclusive reliance on some specific decibel metrics from the Zoning Ordinance does not provide a complete picture of the noise impacts to neighbors that may result from the Project.[5] The setting here includes a rural location and some homes and businesses in the Project's neighborhood. The intrusion of this noisy industrial facility will likely result in a significant increase in the magnitude of noise levels at these neighboring homes and businesses. 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 and the public to have evaluated the magnitude and significance of the Project's noise level *increases* at the nearby sensitive receptors.

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

[3] 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."

[4] The Lake County General Plan, p. 8-6, Table 8-2, Noise Implementation Measure 1.0, requires an acoustical report "*be prepared by a qualified acoustical consultant*."

[5] Equivalent Noise Level (L_{eq}): The average noise level during a specified time period; that is, the equivalent steady-state noise level in a stated period of time that would contain the same acoustic energy as the time-varying noise level during the same period. Maximum Noise Level (L_{max}): The highest instantaneous noise level during a specified time period.

IS/MND Fails to Evaluate the Magnitude of the Noise Level Increases.

The Project's *increase in noise* is a tremendous source of concern for nearby residents, especially because the proposed Project would place the Project's construction and wood delivery operations within a few hundred feet of some nearby homes along Highway 20. Moreover, the Project's noise level increases will be significant at numerous other homes.

California CEQA law considers an increase in noise levels compared to ambient noise to be potentially significant to residents for several key reasons:

1. **Human Perception of Change**:

   Sensitivity to Increases: People are often more sensitive to a change in the noise environment than to a steady noise level, even if the new level remains within acceptable limits according to regulations. A sudden or noticeable increase can be disruptive and annoying, drawing attention even if it's not objectively "loud."

   Relative Loudness: Our perception of loudness is not linear. A small increase in decibels can be perceived as a significant jump in loudness, especially when starting from a quieter ambient level. For example, a 3 dB increase is generally considered the threshold of a noticeable change, and a 10 dB increase is often perceived as a doubling of loudness.

   Intrusiveness: A new noise source that stands out against the existing background noise is often considered more intrusive and bothersome than a consistent noise level, even if the absolute level of the new noise is not high.

2. **Potential for Health and Well-being Impacts:**

   Annoyance and Stress: Increased noise can cause annoyance, irritability, and stress, even if it doesn't reach levels that cause hearing damage. Chronic exposure to even moderate noise increases has been linked to cardiovascular problems and other health concerns.

   Communication Interference: Higher noise levels can make it difficult to hear conversations, watch television, or enjoy other activities, impacting quality of life.

   Learning and Productivity: In residential areas, increased noise can disrupt concentration and learning.

3. **Limitations of Noise Standards:**

   Averaging Effects: The County's noise standards rely on average noise levels (like L_{eq} or CNEL) over a period of time. These averages can mask short-term, intermittent, or impulsive noise events that can be particularly disruptive and annoying to residents. This biomass processing Project might technically comply with average noise limits at distant locations, but still generate significant short-duration noise increases due to the banging or clanking noise from heavy equipment, and during biomass unloading activities with heavy industrial equipment.

Existing High Ambient Levels: In areas with already high ambient noise levels, like along Highway 20, a small relative increase from this Project can push the total noise burden to a point where it significantly impacts residents' well-being, even if the Project's absolute noise contribution seems minor elsewhere. If the Project's noise level doesn not exceed numerical limits in the Noise Ordinance or General Plan, residents can still react negatively to noticeable increases in noise due to the reasons mentioned above.

Increased Awareness: A new or louder noise source can draw attention and become a constant reminder of the Project's presence.

Loss of Quiet: Residents may value the existing ambient quiet, and any intrusion, even if not legally "loud," can be perceived as a loss of their peaceful environment.

Perceived Quality of Life Reduction: Even if health impacts are not immediate or severe, increased noise can diminish residents' enjoyment of their homes and neighborhoods.

Concerns about Future Increases: Residents may worry that the initial noise increase is a precursor to further, more significant noise problems in the future.

Loss of Trust: If residents feel their concerns about noise were not adequately considered during the Project's review, it can lead to frustration and a loss of trust in County officials and the Project proponent.

Therefore, CEQA requires consideration of noise increases relative to the ambient level to provide a more comprehensive assessment of potential impacts on residents, going beyond simply checking if absolute noise thresholds are exceeded. This approach acknowledges the complexities of human perception and the potential for significant impacts even when regulatory limits are technically met.

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.

Neither County officials nor the public can evaluate this Project's noise level *increase* without having that ambient noise level data that should have been measured at sensitive receptors. As a result, the IS/MND did not and 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.

[6] California Natural Resources, Appendix G- Environmental Checklist Form, https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/ab52/final-approved-appendix-G.pdf Also, the current version of Appendix G for noise impacts, although 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.

Generally, if a project's operational noise actually 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] If the future noise level during the Project's operation is greater than the *normally acceptable* noise level, a noise increase of 3 dBA CNEL or greater should be considered a potentially significant noise impact, and mitigation measures must be considered.

But the IS/MND never analyzes how loud the combined noise levels of this Project's various activities will be when added to the existing noise levels at neighboring homes. Nor does the IS/MND disclose what the ambient noise levels at these homes currently are. 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 these home will result once the Project begins operating its noisy equipment.

Instead, and without credible data or analysis, the IS/MND vaguely concludes that this Project's noise levels will not exceed the County's allowable noise standards. But a presumed 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 at sensitive receptors. The IS/MND entirely fails to explain why the magnitude of the increase in ambient noise levels at sensitive receptors 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."

That is the same error made in this Project's IS/MND. The IS/MND, on pages 50 – 51, and supported by the applicant's Sound Level Analysis page,[8] 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, pp. 50 - 51, fails to include any mention of a substantial increase in noise levels triggering its significance criteria.[9] Because the IS/MND is seriously flawed in this regard, an EIR must be prepared to evaluate if the magnitude of such noise level increases would be significant.

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[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

[8] See IS/MND, PDF p. 88, "Sound Level Analysis," for its notation: "Residence - Expected Continuous Sound Levels Under 55 dBa."

[9] The IS/MND, p. 50, for XIII Noise *Significance Criteria,* asks "would the Project *(a)* 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?" The IS/MND p. 51, § XIII, never answers its question about the generation of a substantial *increase* in ambient noise levels.

THE IS/MND OMITS OTHER VITAL INFORMATION ESSENTIAL FOR INFORMED PUBLIC PARTICIPATION.

The IS/MND misleads the public by underestimating how many activities would occur and how much noise this Project would emit from those activities.

The IS/MND, pp. 50 - 51, inadequately answers the question of:

> "Would the project: (a) 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?

But the IS/MND's **Discussion (a)** in response to that question claims there would be a less-than-significant noise impact, while never even mentioning anything about the nearby homes or other noise-sensitive land uses affected by the Project's noise emissions. It utterly misleads the public by merely pointing to effects on "agricultural operations" where it states:

> "Sound levels have been estimated and fall under the county's acceptable levels for agriculture operations. The sound level of the power generation facility will be under the decibels A levels for non-business hours to the property line."

But what about noise impacts to nearby homes that are not businesses? Those affected residents are also entitled to protection from excessively loud industrial noise impacts. What about the pre-school's exposure to excessive construction noise levels?

The IS/MND fails to describe the distances of nearby homes other than one home to the east and one to the north. No mention is made of over a dozen other homes where Project noise levels may be excessively loud. The IS/MND also does not identify the distances from the Project to the Running Creek Casino or to the related office building about 500 feet from driveway construction work. The Upper Lake Park[10] is not mentioned in the Noise Section of the IS/MND either. These commercial facilities' use can also be harmed by exposure to loud Project noise.

Serving to hide essential information related to disclosure of the Project's noise impacts, nothing in the IS/MND's Noise Impact section (pages 50 – 51) points elsewhere to the applicant's *Sound Level Analysis* page that only the most inquisitive reader might accidentally discover where it is buried some 37 pages later in the IS/MND along with property maps.

The IS/MND fails to include important information about heavy industrial equipment that would be used for the Project. Specifically, the IS/MND fails to identify and describe the noise-generating equipment with their noise source levels at varying distances. The IS/MND should identify: (1) how many of each will be in operation for the Project, (2) the equipments' operating assumptions (e.g.

[10] The Park's website states that it contains a large playground, a shaded picnic structure, many picnic tables, public restrooms, BBQ's, dog park, baseball field, tennis courts, a large well lit parking area and several walkways within 8 acres of lawn and numerous, beautiful trees.

estimated daily hours of operations), and (3) noise source levels for each piece of equipment. This inadequacy of the IS/MND's Project Description contravenes CEQA and undercuts the legitimacy of the remainder of the IS/MND. Therefore an EIR must be prepared to remedy these deficiencies.

Additionally, noise from Project deliveries will impact residents and businesses located farther from the Project site. For example, backup alarms on Project vehicles can likely be heard at homes a mile away. Increased truck traffic in the vicinity will raise the noise level at homes near Highway 20. Ambient noise level tests need to be conducted at greater distances from the Project site to adequately measure the potential noise impacts and assess these problems prior to Project approval.

The IS/MND fails to provide any evidentiary support by any qualified acoustical consultant for its conclusion that noise impacts resulting from construction and operation would be less-than-significant. In fact, all information in the IS/MND points to the opposite conclusion. Noisy construction work while building a suitable driveway would occur within about 400 feet of some homes to the north of Highway 20. The IS/MND discloses that other daily operations to process biomass chips would involve the use of loud heavy industrial equipment. The IS/MND further acknowledges that Project activities would occur during the daytime and for a period of four months during construction and long afterwards during operations. Some nearby residents work from home and would be disturbed by such intrusive daytime noise impacts. The increase in noise from trucks, a front-end loader, tractor, and chainsaws during daily operations will severely impact adjacent residents. The IS/MND provides no substantive mitigation. The revised IS/MND or EIR must include additional mitigation including on-going noise monitoring during these Project operations if noise levels exceed the County's noise standards.

CONSTRUCTION-RELATED SHORT-TERM NOISE IMPACTS WILL BE SIGNIFICANT.

The IS/MND, p. 50, acknowledges that CEQA requires analysis of whether the Project could result in the generation of substantial "temporary" noise in ambient noise level in the Project's vicinity. In this case, that temporary noise would occur during construction activities. But the IS/MND does not answer this question with any meaningful facts or analysis. Nonetheless it determines without substantial evidence that such temporary construction noise impacts would be less-than-significant. On that basis alone, the IS/MND violates CEQA which requires a good faith effort to protect the environment and a project's neighbors from excessive noise.

The IS/MND does not identify with any certainty what heavy equipment will be used during the Project's construction other than various trucks and some unspecified site compaction equipment. Accordingly, the IS/MND fails to adequately evaluate the Project's noise impacts during its construction activities. That construction work taking up to four months to complete includes constructing a long driveway with noisy equipment. The IS/MND provides no evidence whatsoever that such construction noise impacts to the neighbors will be less-than-significant.

However, and more informative, at least Lake County previously approved in 2020 and modified in 2023 a wood chipping project on property owned by the Scotts Valley Band of Pomo Indians with

similar driveway construction work. Its IS/MND[11] stated that during construction, that the Red Hills BioEnergy project "*may involve the use of a tractor/grader, compactor, water truck, and trucks delivering rock and concrete.*" We can assume similar equipment might be used for the Ag Forest site's construction. Noise levels from backup alarms used on such mobile equipment are even louder. Project construction can generate very loud noise impacts for months that neighbors have a right to know about and be protected from during the IS/MND procedures.

TABLE 1. MAXIMUM ESTIMATED NOISE LEVELS OF POSSIBLE PROJECT EQUIPMENT

Project Equipment	Noise Levels at 50 feet (dBA L_{max})
Back-up Alarms (*based on alarm noise level: 97 to 112 decibels at four feet*)	90
Bulldozer	90
Compactor	85
Chainsaw	88
Excavator	92
Forklift	86
Front-end loader	90
Grader	89
Grinder*	96
Haul truck (under load)	95
Scraper	91
Tractor	90
Water truck for dust control	94
Wood Chipper **	89

Note: L_{max} = Maximum sound level; the highest sound level measured during a single noise event.
Equipment noise levels are at 50 feet from individual construction equipment and with no other noise contributors.
Source: County of Ventura, Construction Noise Threshold Criteria and Control Plan, 2010, Page 4, Figure 2. "Typical Construction Equipment Noise," available online as of May 1, 2025: https://rma.venturacounty.gov/wp-content/uploads/2024/03/construction-noise-threshold-criteria-and-control-plan.pdf

* Tub Grinder: 96 dBA L_{max}. *See*: Bradley Landfill and Recycling Center (DEIR), pp. 4.5-1 and 4.5-10, Table 4.5-5. https://planning.lacity.gov/eir/BradleyLandfill/DEIR/4.5%20Noise.pdf

** Wood Chipper: *See:* Napa County General Plan Update Draft EIR, Feb. 2007, page 4.7-18, Table 4.7-6 – "Construction Equipment Noise Emission Levels": Wood Chipper: 89 dBA at 50 feet. https://www.countyofnapa.org/DocumentCenter/View/7959/47-Noise-General-Plan-DEIR-PDF

DRIVEWAY CONSTRUCTION NOISE EXCEEDS COUNTY'S NOISE STANDARDS

The IS/MND does not clearly describe or specify the noise levels for all the heavy equipment that would be used to build the Project's rock driveway. The IS/MND vaguely lists: "*grubber; gravel truck; compaction equipment; post hole digger; ground screw anchor machine and delivery trucks; water trucks; and water buffalo trailer.*" No mention is made of typically loud heavy equipment such as a tractor or grader needed during the driveway construction. By comparison, the applicant's Red Hills bioenergy project IS/MND listed a tractor/grader to be used during construction there.

[11] (See 2023 Red Hills BioEnergy Project Addendum to IS/MND, p. 16, available at: https://files.ceqanet.opr.ca.gov/288712-2/attachment/sz4G9B2JVrnyuEKGe88BAS-6ue4CrwqFLiUXkIDxC5e93AEJ6RJgLsakM1yt_pV-wr-OECzwlQQ0gcb30)

For this Noise Impacts Report, it is assumed then that during the Project's driveway construction, a haul truck, a compactor and a tractor/grader would be used and at times be operated simultaneously. Then that equipment use could generate a combined noise level of up to **60.3 dBA $L_{eq\text{-}1\ hr.}$** at Homes "H" and "I" that are located about 1,000 feet to the west from the Project's driveway construction work.[12] That noise level would exceed the County's maximum-allowed residential daytime noise level of 55 dBA $L_{eq\text{-}1\ hr.}$ per the Noise Ordinance § 41.11. Other homes are closer to the driveway construction work, such as Homes "C", "D", "E", "F", and "G", and therefore would be exposed to driveway construction noise levels even greater than 60.3 dBA $L_{eq\text{-}1\ hr}$. (See Figure B for these distances from such homes to that driveway work.) That is substantial evidence that the Project's construction work would create significant noise impacts at seven or more neighboring homes.

The Upper Lake Middle School at 725 Old Lucerne Road is located 700 feet north-west of a portion of the Project's driveway construction work. The Noise Ordinance, § 41.11(a), Table 11.2, permits a **maximum of 57 dBA $L_{eq\text{-}1\ hr}$.** for noise level exposure at a school. But at that distance, this Middle School could be exposed to excessive noise levels of about **63.4 dBA $L_{eq\text{-}1\ hr}$.**[13] Excessive noise like this at schools can interfere with students being able to hear their teachers clearly.

While the construction work might be exempt from the County's Noise Ordinance standards during daytime hours, the Project's adverse noise impact when exceeding those noise standards is not exempt from the requirement for analysis and mitigation under CEQA.

DRIVEWAY CONSTRUCTION WOULD CAUSE SIGNIFICANT NOISE LEVEL *INCREASES*.

CEQA requires the IS/MND to disclose the magnitude of the temporary noise level increase during such construction work at these affected homes. For example, in this rural location, these homes (Homes "H" and "I") may be exposed to existing ambient noise levels of about 50 dBA $L_{eq\text{-}1\ hr.}$ in the daytime. But for months on end, they could be exposed to increased construction noise levels of up to about **60.3 dBA $L_{eq\text{-}1\ hr}$.** That work could cause a temporary noise level increase of over 10 dBA. (60.3 – 50 = 10.3 dBA increase) That 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

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[12] The estimation of a combined noise level of 61.3 dBA $L_{eq\text{-}1\ hr.}$ at either home is calculated by adding the separate noise levels of a haul truck (84 dBA L_{max}), a compactor (85 dBA L_{max}), and a grader (89 dBA L_{max}) that could be used simultaneously to construct the driveway. Those are decibel levels at a distance of 50 feet, and when added, they cumulatively result in a noise level of 91.3 dBA L_{max}. Calculation:

$L_{total} = 10 \times \text{Log}_{10} (10^{L1/10} + 10^{L2/10} + 10^{L3/10}) = 10 \times \text{Log}_{10} (10^{8.4} + 10^{8.5} + 10^{8.9}) =$ **91.3 dBA L_{max}** at 50 feet.

Then this total noise level is adjusted with a typical usage factor for each equipment type. The usage factor is an estimate of the fraction of time each piece of equipment operates at full power. The usage factor is used to estimate L_{eq} from the L_{max} values in this case where the Lake County impact criteria is expressed in terms of L_{eq}. This equation below is used to estimate L_{eq} from L_{max}. It also includes a term for estimating noise at distances other than 50 feet, such as at 1,000 feet in this calculation. **L_{eq} dBA = L_{max} at 50 feet – 20log(D / 50) + 10log(UF)** where D = distance of interest, and UF = usage factor or fraction of time period of interest equipment is in use. Assuming each equipment is operated with a usage factor of 40%, and the distance from the driveway work to these two homes is 1,000 feet, the combined noise level during driveway work at these homes is calculated at 61.3 dBA $L_{eq\text{-}1\ hr.}$ At that distance, 1.0 dB would be subtracted to account for atmospheric attenuation, resulting in a calculated noise level of **60.3 dBA $L_{eq\text{-}1\ hr.}$**

[13] Calculation at 700 feet: $dB_2 = dB1 - 10 \times A \times LOG(R_2/R_1) = 60.3 - 10 \times 2.0 \times LOG(700' / 50') =$ **63.4 dBA $L_{eq\text{-}1\ hr}$.** (That noise level at the Middle School includes subtracting 0.7 dB for atmospheric attenuation over 700 feet.)

projects.[14] In such rural locations, loud industrial construction noise can be particularly intrusive and disturbing. An 10 dBA temporary noise level increase would be very significant. 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[15] 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.

This Project would expose at least nine neighboring homes, two schools and other structures to excessive noise levels during the Project's driveway construction work. (See Table 2 below.)

[14] A 5 dB increase in noise levels is considered significant if the ambient noise is below 60 dB day-night average sound level (L_{dn}). This threshold is applicable to the nearest residential areas to a project, where noise levels were recorded below 60 dB Ldn. A leading court case involving a proposed oil and gas ordinance in Kern County indicated that a 5 dB increase over existing ambient noise levels could constitute a significant noise impact, regardless of the maximum levels allowed under their General Plan. The Federal Interagency Commission on Noise (FICON) also uses this 5 dB threshold of significance assessing increases in project-related noise, taking into account the base level of ambient noise.
[15] See L.A. CEQA Thresholds Guide (2006) Page I.1-3, Section 2(A) Significance Threshold.

DRIVEWAY CONSTRUCTION COULD GENERATE NOISE LEVELS INSIDE SOME NEIGHBORING HOMES THAT EXCEED THE COUNTY'S GENERAL PLAN 45 dBA CNEL *INTERIOR* NOISE LIMIT.

Another standard that the General Plan Noise Element Policy N-1.10 requires to be considered is the California Noise Insulation Standards (Building Code Title 24, Section 3501 *et seq*.). This standard for residences sets a maximum interior noise level of **45 dBA L_{dn}** in any habitable room, averaged over a 24-hour period. That is essentially the same standard set by the County's General Plan maximum indoor noise requirement of **45 dBA CNEL** at these homes.[16] These standards protect against sleep-disturbance impacts at nighttime, and more pertinent here to actual construction noise, against unreasonable annoyance impacts during the daytime. But the IS/MND never evaluated this Project's compliance with this residential noise standard that would be violated within nearby homes.

If the Project's driveway construction activities generate a total noise level of **71.3 dBA L_{eq}** at 1,000 feet at Home "H" or "I", that noise level would exceed the maximum indoor noise standards at these two homes. For construction occurring for 10 hours per day, for example from 7:30 a.m. to 5:30 p.m., but with the Project site being quiet for the remaining 14 hours per day, the day-night weighted average noise level can be calculated to **67.5 dBA CNEL** at those two homes' exteriors.[17] This impact would be even greater if the facility operates for over 11 hours per day, since it is permitted to operate from 7:30 am to 7:00 p.m.[18]

With an exterior noise level of 71.6 dBA CNEL at Homes "H" and "I"s windows, and with a typical attenuation (reduction) factor of 20 dBA due to noise passing through the walls and roof of a home with its windows closed, the interior noise level indoors would be as much **51.6 dBA CNEL**.[19] 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. Even with a slight reduction in noise levels due to atmospheric attenuation of about 1 dB at these distances, the interior noise levels would still exceed the County's maximum standards. Therefore this Project's construction noise impacts to the interior noise levels would be significant at some homes.

Other homes exposed to noise from this Project's driveway construction work would be significantly impacted by that construction noise. The homes "C", "D", "E", "F", and "G" which are north of State Highway 20 are also less than 1,000 feet from sections of this driveway's construction work. They too would be exposed to interior noise levels when their windows are closed of greater than 45 dBA CNEL, a noise level which exceeds the County's maximum interior noise standards.

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[16] See County of Lake General Plan, Noise Element, p. 8-4, Policy N-1.3, Interior Noise Levels: 45 CNEL.

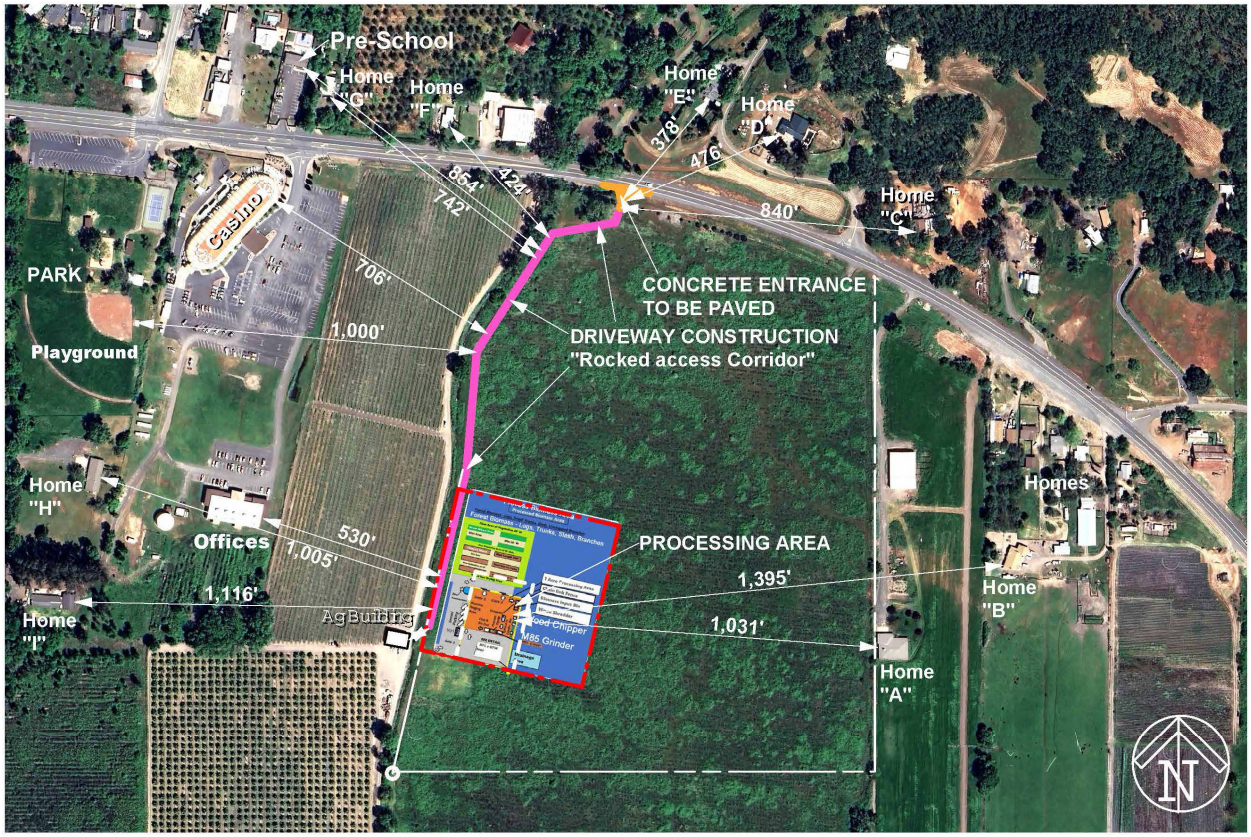
[17] Calculation of CNEL: Assign **71.3 dBA L_{eq}** to each of 10 daytime hours from 7:30 a.m. – 5:30 p.m., and assume **45 dBA L_{eq}** for each of 3 evening hours from 7 p.m. – 10 p.m., (i.e. add 5 dB to each hour presumed at 40 dB), and **50 dBA L_{eq}** for each of the 9 hours from 10 p.m. – 7 a.m. (i.e. add 10 dB to each nighttime hour presumed at 40 dB). Then assume **40 dBA L_{eq}** for the remaining 2 hours. Then calculate the logarithmic average of these noise levels for all 24 hours in a day with this formula:

$$\textbf{CNEL}=10\log_{10}[(1/24)x\{(10^{(71.3)/10}x10\text{ hrs}) + (10^{(40+5)/10}x3\text{ hrs}) + (10^{(40+10)/10}x9\text{ hrs}) + (10^{(40)/10}x2\text{ hrs})\}] =$$
$$=10\log_{10}[(1/24)x\{13{,}896{,}288 + 94{,}868 + 90{,}000 + 20{,}000\}]$$
$$=10\log_{10}[(1/24)x135{,}101{,}156] = 10 \text{ x } \log_{10}[5{,}629{,}214] = 10 \text{ x } 6.75 = \textbf{67.5 CNEL}$$

[18] The IS/MND, p. 8, states: "Hours of operations will occur between 7:30 a.m. and 7:00 p.m."

[19] Calculation: 71.2 dBA CNEL outdoors – 20 dB (loss with windows closed) = 51.2 dBA CNEL indoors

FIGURE B - DISTANCES FROM NOISE SENSITIVE RECEPTORS TO CONSTRUCTION NOISE



NOISE SENSITIVE LAND USES

0 200' 400' 600' 800' 1000' 1200' 1400' 1600' 1800'

Scale: 1"= 400 feet

Table 2 - Noise Levels During Construction and During Operation at Sensitive Receptors

Sensitive Receptor (homes or businesses)	**Distances To Construction** At driveway or site work (in feet) See Figure A	**Noise Level Exposure During Construction** (dBA $L_{eq-1\ hr.}$)	**Max dBA** allowed by §41.11	**Distances To Operation** (in feet) See Figure C	**Noise Level Exposure During Operation** (dBA $L_{eq-1\ hr.}$)	**Max dBA** allowed by §41.11	**Complies with Noise Standards?**
A	1031	60.0	55	1031	69.8	55	No
B	1395	57.4	55	1395	67.2	55	No
C	840	61.8	55	1566	66.2	55	No
D	478	66.7	55	1551	66.3	55	No
E	378	68.8	55	1550	66.3	55	No
F	424	67.8	55	1360	67.4	55	No
G	742	62.9	55	1620	65.9	55	No
H	1005	60.3	55	1165	68.8	55	No
I	1116	59.3	55	1166	68.8	55	No
Preschool	854	61.7	57	1630	65.9	57	No
Middle School	700	63.4	57	1850	64.7	57	No
Casino	706	63.3	60	1240	68.2	60	No
Ag Bldg.	100	80.3	55	243	82.4	55	No
Office	530	65.8	60	690	73.3	60	No

(Construction noise levels based on 60.3 dBA $L_{eq-1\ hr.}$ at 1,000 feet & atmospheric attenuation. See p. 14)
(Operation noise levels are based on 67.9 dBA $L_{eq-1\ hr.}$ at 1,290 feet & atmospheric attenuation. See p. 31)

FIGURE C - DISTANCES FROM NOISE SENSITIVE RECEPTORS TO WOOD CHIPPER NOISE

NOISE SENSITIVE LAND USES 0 200' 400' 600' 800' 1000' 1200' 1400' 1600' 1800'

OPERATIONAL NOISE IMPACTS WOULD BE SIGNIFICANT IN THE NEIGHBORHOOD.

Neighbors to this proposed Project have legitimate concerns that the Project's IS/MND has not adequately disclosed the serious noise impacts that they may be forced to live with if this Project's daily operations and their likely noise levels are not adequately examined and sufficient noise mitigations are not imposed.

The confluence of increasing interest in sustainable waste management and renewable energy production has led to the emergence of combined wood processing and biochar production as potentially beneficial industrial operations. These facilities can efficiently utilize biomass resources, converting wood waste into valuable products such as biochar, a carbon-rich material with applications in agriculture and environmental remediation. However, the operation of heavy machinery inherent in both wood processing and material handling for biochar production carries the potential for significant noise pollution.

A thorough assessment of the noise impact from such combined facilities is crucial for ensuring the safety and well-being of workers and for maintaining positive relationships with surrounding communities. This report aims to provide a comprehensive analysis of the expected noise levels emanating from a combined wood processing and biochar plant. The analysis will consider the noise generated by specific equipment commonly used in these operations, the principles governing the

combination of sound levels from multiple sources, findings from existing research on similar industrial settings, the regulatory landscape concerning noise from biochar plants, and the various factors that can influence the overall noise environment.

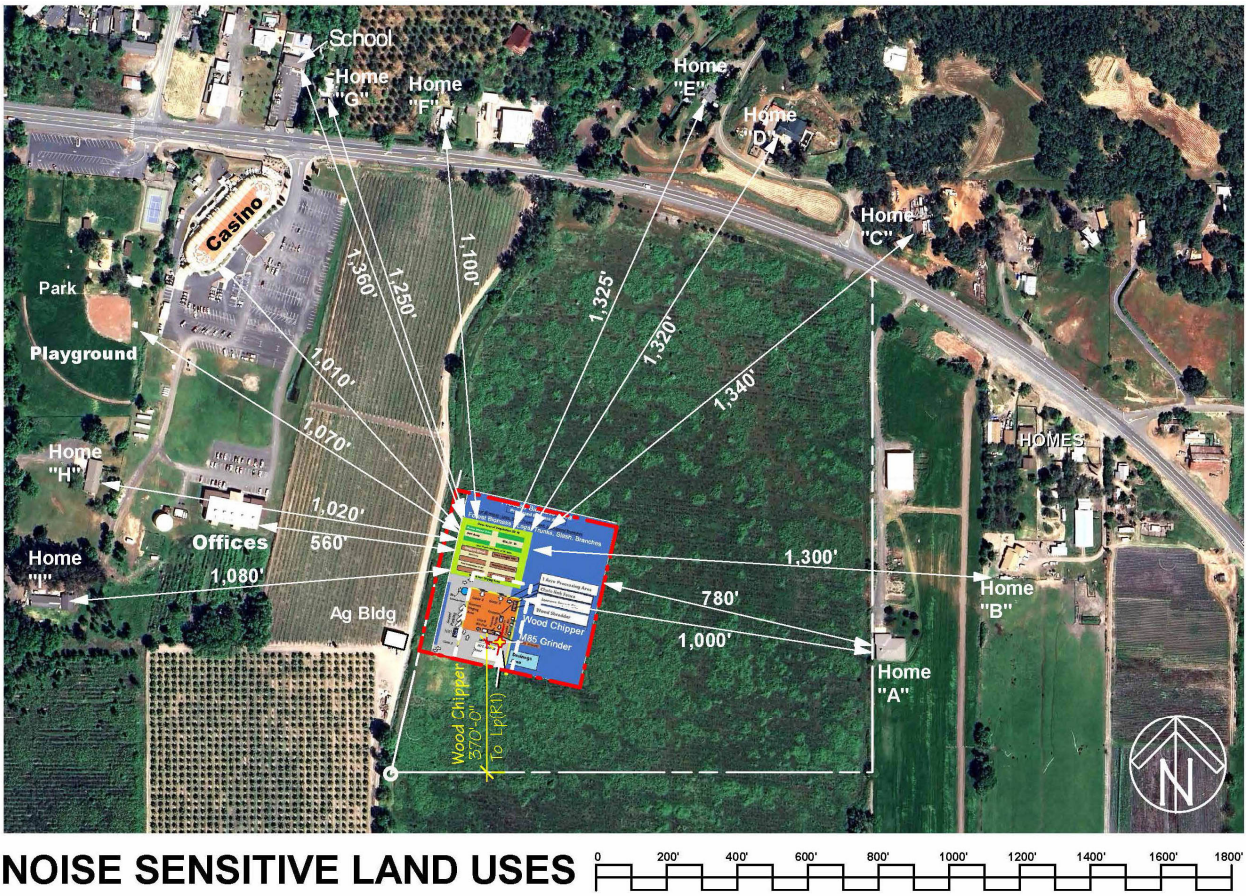
The integration of these two industrial processes within a single facility can lead to complex acoustic interactions, where the noise generated from different stages of wood processing and biochar production might overlap and potentially amplify the overall noise footprint. Therefore, a detailed examination of the cumulative noise impact is essential.

Loud noise would occur on the entire 5-acre Project site during Project operations. The IS/MND does not disclose the increased noise exposure risk during truck unloading and chainsaw noise at the northern portion of the site to residents living north of Highway 20. The IS/MND's only map[20] of the neighborhood is deceptive and misinforms the public. It does not have any mention of noise source locations other than at a point (labeled "Lp(R1)") that is near the southern end of the 5-acre site. That location is up to 400 feet farther to the south from homes near Highway 20 than where other major sources of noise at the northern end of the 5-acre site would operate. Yet on that map, there is no outline or other indication where the Project 5-acre site would be positioned. If that major noise source point representing the location of a wood chipper or a *M85 grinder* was described on a map somewhat like Figure A**,** below, the public could understand how other loud Project noise sources operating 400 feet closer to homes and the pre-school to the north would impact people. That distance decrease can make a significant difference to those neighbors. The same noise level measured at 1,000 feet from the noise source would be about **3 dBA** louder than if measured at 1,400 feet away.

On the following page, a map (Figure A) is repeated for convenience to show distances from various loud Project operations to each sensitive receptor listed in this report.

[20] See IS/MND, PDF page 88: the only neighborhood aerial photo map is on page labeled "Sound Level Analysis."

FIGURE A - DISTANCES FROM PROJECT OPERATION TO NOISE SENSITIVE RECEPTORS



During preparation of this Noise Impacts Report, we were able to uncover the IS/MND's mapping inadequacy by using precise CAD drafting software that County officials and the general public probably do not have access to. But the public should not have such critical mapping information be hidden from them such that they would need specialized software and skills to unravel.

The overarching principles of CEQA inherently necessitate that documents intended for public review are presented in a format that allows for understanding. One of CEQA's primary purposes is to ensure that government decision-makers and the public are informed about the potential environmental effects of proposed activities. This informational goal is undermined if the documents, including crucial visual aids like site plans and maps, are missing vital information. Furthermore, CEQA mandates that public agencies disclose and evaluate the significant environmental impacts of projects, a process that relies on the public's ability to access and understand the information provided. The public review period, a cornerstone of CEQA, offers an opportunity for community members to submit comments on the project and the environmental document, an opportunity that is severely limited if key parts of the document are essentially unreadable. The public's ability to engage meaningfully in the CEQA process depends on their capacity to understand the information presented in all environmental review documents. Furthermore, the requirement for a "good faith effort of full disclosure" suggests a broader expectation within CEQA that agencies will present environmental information in a format that allows for genuine understanding and scrutiny.

USE OF A SINGLE LOUD CHAINSAW AT THE NORTHERN SIDE OF PROJECT SITE COULD EXCEED COUNTY'S NOISE LIMITS AT NEARBY HOMES.

The IS/MND, p. 23, describes that the Project proposes to have up to approximately 100 million pounds per year[21] of forest materials delivered to the northern end of the 5-acre site during 12-hour workdays. Processing that much material would generate a lot of noise at the site. Then branches and tree trunks will be unloaded from delivery trucks by a front-end loader, and cut as needed with chainsaws. After further processing operations, other trucks and loaders will store the material in piles and haul away wood chips or biochar stored nearby. Noise levels generated by these multiple equipment types would be significant to nearby residents. The IS/MND places no limits on what equipment may operate there or how many chainsaws can be used at one time.

The use of a single loud chainsaw at the northern portion of the 5-acre site could generate noise levels at numerous homes that exceed the County's noise standards.

For example, that chainsaw could create noise levels at **Home "F"** to the north of approximately 57.1 to 58.0 dBA $L_{eq\ 1\text{-}hr.}$ That noise level would exceed the County's daytime noise standard for residences which is 55 dBA $L_{eq\ 1\text{-}hr.}$

> Explanation: Home "F" is about 1,000 to 1,100 feet from where such a chainsaw could be operated at the north end of the Project's 5-acre site. Chainsaw noise levels have been measured at an average of 85 dBA L_{eq} at a 50-foot distance, and up to a maximum of 88 dBA L_{max} at 50 feet.[22] If at a distance of 1,050 feet, that 85 dBA L_{eq} average sound level would decrease to 58.6 dBA L_{eq}.[23] Then with atmospheric attenuation absorbing 1.1 dBA over that 1,100-foot distance, the resulting noise level would be **57.5 dBA** $L_{eq\ 1\text{-}hr.}$ That noise level constitutes a significant noise impact at that home because it is greater than the County's maximum 55 dBA $L_{eq\ 1\text{-}hr.}$ noise standard.[24]

At **Home "E"** located about 1,325 feet northeast from where a chainsaw could be operated on the 5-acre site, this home's noise exposure to just that chainsaw noise would be about **55.2 dBA $L_{eq\ 1\text{-}hr.}$**, slightly louder than the County's maximum allowed noise standard at a residence.[25]

Homes "A", "B", "C", "G", "H", and "I" are less than that 1,325-foot distance from the 5-acre site and, using a similar noise level calculation, they too could also be exposed to excessive noise levels during the operation of a single loud chainsaw. See Figure A above for distances between the 5-acre site where chainsaws could be used and these various homes.

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[21] (Up to 50,000 tons per year).

[22] Source: County of Ventura, Construction Noise Threshold Criteria and Control Plan, 2010, Page 4, Figure 2. "Typical Construction Equipment Noise," (Chainsaw: 85 dBA L_{eq} at 50-feet); this source is available online as of May 1, 2025, and a copy will be provided to County of Lake officials if requested: https://rma.venturacounty.gov/wp-content/uploads/2024/03/construction-noise-threshold-criteria-and-control-plan.pdf

[23] Calculation: $dB_2 = dB1 – 10 \times A \times LOG(R_2/R_1) = 85 – 10 \times 2.0 \times LOG(1{,}050' / 50') = 58.6$ dBA L_{eq}. Subtracting 1.1 dB for atmospheric attenuation, the resulting noise level would be 57.5 dBA $L_{eq\ 1\text{-}hr.}$

[24] See Noise Ordinance, § 41.11, Table 11.1 (Maximum one-hour equivalent sound pressure levels, daytime, residential): 55 dBA $L_{eq\ 1\text{-}hr.}$

[25] Calculation: $dB_2 = dB1 – 10 \times A \times LOG(R_2/R_1) = 85 – 10 \times 2.0 \times LOG(1{,}320' / 50') = 56.5$ dBA L_{eq}. Subtracting 1.3 dB for atmospheric attenuation in 1,320 feet, the resulting noise level would be **55.2** dBA $L_{eq\ 1\text{-}hr.}$

All these neighboring homes would be affected by louder noise levels yet than just from a chainsaw when noise levels are combined from the other Project noise sources. Those other sources include haul trucks, front-end loader, wood chipper, grinder, shredder, grappler, crumbler/rotary shear, and backup warning alarms used on mobile equipment.

Because gas-powered chainsaw noise could create noise levels at these neighboring houses that exceed the Zoning Ordinance's noise standards, this Project would create a significant noise impact.

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.

This Project would use a wood chipper to grind up logs and small tree trunks.[26] Wood chippers play a crucial role in processing smaller diameter wood, branches, and other woody debris into smaller, more uniform chips. Wood chipper noise levels have been rated by other counties up to 89 dBA L_{max} at 50 feet.[27] That accordingly is a noise level also used in this Report. The applicants have not agreed to only use a quieter wood chipper. The Planning Commission enacted no conditions of approval, no mitigation and no other requirement to use a less noisy wood chipper. With few effective noise barriers proposed to remain at all times surrounding the wood chipper, the following calculated noise levels at nearby homes are estimated.

Table 3 - COMPARISON OF WOOD CHIPPER NOISE LEVELS WITH COUNTY NOISE ORDINANCE

Sensitive Receptor	Distance to chipper (in feet)	Maximum Allowed Chipper Noise Level (dBA $L_{eq-1\ hr.}$)	Calculated Noise Level at Receptor (dBA $L_{eq-1\ hr.}$)	Comply with Noise Standard?
A	1031	55.0 (See Note 1)	61.7	No
B	1395	55.0	58.7	No
C	1566	55.0	57.5	No
D	1551	55.0	57.6	No
E	1550	55.0	57.6	No
F	1360	55.0	58.9	No
G	1620	55.0	57.2	No
H	1165	55.0	60.5	No
I	1166	55.0	60.5	No
Casino	1240	60.0 (See Note 2)	59.9	(Yes)
Preschool	1630	57.0	57.1	No
Offices	690	60.0 (See Note 2)	66.5	No
Ag Bldg.	243	60.0 (See Note 2)	75.0	No

Note 1: Noise Ord., § 41.11, Table 11.1 (Maximum one-hour equivalent sound pressure levels, daytime, residential)
Note 2: Noise Ord., § 41.11, Table 11.1 (Max. one-hour equivalent sound pressure levels, daytime, commercial)
Note: These noise levels include adjustment for atmospheric attenuation over the specified distances.

Nearly all of these noise levels from wood chipper operation listed in Table 3 above would exceed the County's maximum allowable daytime noise levels at residences of **55 dBA $L_{eq-1\ hr}$.**, for a pre-school of **57 dBA $L_{eq-1\ hr}$** , and for commercial buildings of **60 dBA $L_{eq-1\ hr}$.**

That calculation does not include other Project noise such as trucking, front end loader noise, conveyor belt noise, backup alarm warning noise – any of which would raise the Project's noise

[26] See IS/MND, PDF p. 83, "Detail "B", Equipment Layout of 5 Acre Leased Site, where the processed biomass area included a label that describes the project processing "Forest Biomass – **logs, small** (tree) **trunks** . . ".)
[27] *See:* Napa County, BDR 2005. *Napa County General Plan Update Draft EIR*, Feb. 2007, page 4.7-18, Table 4.7-6 – "Construction Equipment Noise Emission Levels"; Wood Chipper: ***89 dBA at 50 feet***.
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

even further.[28] This is strong evidence that the Project as proposed will generate noise levels that exceed the Noise Ordinance limitations.[29]

As calculated, the wood chipper's use may create noise levels so loud that they can exceed the Noise Ordinance's maximum one-hour **55 dBA $L_{eq\text{-}1\ hr}$.** during a daytime hour at any of the nine sensitive receptors studied in this Report. Numerous homes in a residential subdivision located to the west and as close as 1,700 to 2,000 feet to the wood chipper could also be exposed to excessive noise levels greater than 55 dBA $L_{eq\text{-}1\ hr}$ during use of the wood chipper, not even considering the Project's other major noise sources. As such, this Project's IS/MND incorrectly determined the Project's noise impact due to the use of the proposed wood chipper will be less-than-significant.

Take note that the calculated noise levels described in Table 3 above have been decreased due to a factor that accounts for "atmospheric attenuation." For example, at 1,500 feet, such absorption of sound by the atmosphere could be about 1.5 dBA.[30]

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

A diesel-engine powered front-end loader is proposed for use during operations.[31] A front-end loader is a noisy piece of heavy equipment when operated for 10 (or 11) hours per day near homes.[32] This Project requires that wood be chipped and stored on the site using a front-end loader. Sound pressure levels measured at a distance of 50 feet for these machines typically fall within the range of 80 dBA to 94 dBA. In 1971, the US EPA reported front-end loaders can generate 87 dBA L_{max} at 50 feet.[33] The County of Ventura[34] as recently as 2024 describes a front-end loader's noise level as **90 dBA L_{max}**. The engine and exhaust system of the loader are major sources of this noise.

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

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

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

[29] *See:* Noise Ordinance § 41.11, Table 11.1, for daytime residential and commercial maximum one-hour equivalent noise levels of 55 dBA L_{eq}-1 hr. *See also* Table 11.2 for the maximum noise levels at schools of 57 dBA $L_{eq\text{-}1\ hr}$.

[30] Atmospheric attenuation is an additional reduction factor caused by the sound energy being converted to heat as it travels through the air, and it is not due to the sound spreading out and decreasing by approximately 6 dB for each doubling of distance .*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

[31] *See:* IS/MND p. 7: "Moving materials and loading them into processing equipment will be accomplished with a front loader."

[32] See: IS/MND, PDF p. 88: "Planned Operational Hours of Equipment Listed Above 7:30am – 5:30pm".

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

At a distance of 1,400 feet relevant to at least nine affected homes,[35] this equipment's noise levels as reduced by that distance, and assuming it would be used 40% of the time during a workday, would be about **55.7 dBA $L_{eq\text{-}1\ hr.}$**[36] That noise level from just a single piece of equipment would exceed the County's maximum allowed 55 dBA $L_{eq\text{-}1\ hr.}$ standard for daytime noise at these residences.[37]

Moreover, the actual noise level during Project operations would be substantially higher at these homes when the cumulative noise from other equipment that would also be simultaneously operating is added, including trucks, tractor, shredder, wood chipper, M85 grinder, grappler, chainsaws, a crumbler/rotary shear, and backup warning alarms. This construction equipment usage seriously risks a significant noise impact to neighbors that the IS/MND fails to disclose.

NOISE LEVEL *INCREASE* FROM OPERATION OF FRONT END LOADER WOULD BE SIGNIFICANT AT NEARBY HOMES.

Not only will the noise level from just the front-end loader's use exceed County noise standards during any hour of the day, 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 one of the neighboring homes, Home "I". Because the IS/MND provides no ambient noise level measurements at these homes, it is assumed that some of these homes experience ambient noise levels of below 50 dBA L_{eq} during the daytime. For example, the Lake County General Plan Noise Element, page 8-13, Figure 8-7, contains a roadway noise contour map showing the 55 dBA L_{dn} noise contour at about 360 feet from the centerline of Highway 20. That 55 dBA L_{dn} day-night weighted 24-hour average noise level represents a daytime noise level of about 55 dBA L_{eq}.[38] Then at a distance of 1,140 feet from the centerline of Highway 20, the daytime ambient noise level can be calculated to be about 50 dBA L_{eq}.[39] Home "I" (at 625 E. Highway 20) is more than 1,140 feet from Highway 20,

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[34] *See*: County of Ventura, Construction Noise Threshold Criteria and Control Plan, 2010, Page 4, Figure 2. "Typical Construction Equipment Noise," available online as of May 1, 2025, and a copy will be provided to County of Lake officials if requested: https://rma.venturacounty.gov/wp-content/uploads/2024/03/construction-noise-threshold-criteria-and-control-plan.pdf

[35] The distance from where the front-end loader would be used to Homes "A", "B", "C", "D", "E","F", "G", "H", and "I" could be less than 1,400 feet.

[36] Calculation: $dB_2 = dB1 - 10 \times A \times LOG(R_2/R_1) = 90 - 10 \times 2.0 \times LOG\ (1{,}400' / 50') = 63.1$ dBA L_{max}. Then assuming a Use Factor of 40% for the front-end loader, its noise level would drop to 57.1 dBA $L_{eq\text{-}1\ hr.}$ at 1,400 feet. Subtracting 1.4 dB for the atmospheric attenuation at that distance would result in the front end loader's noise level of **55.7 dBA $L_{eq\text{-}1\ hr}$** at 1,400 feet.

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

[38] Source: The Engineering ToolBox's Day-Night Sound Level Calculator, assuming a daytime equivalent sound level of 55 dBA L_{eq} and a nighttime equivalent sound level of 45 dBA L_{eq}, which calculates to a day-night sound level of **55 dBA L_{dn}**, which is available online at: https://www.engineeringtoolbox.com/sound-level-d_719.html

[39] Calculation of noise level farther from highway: $L_2 = L_1 - 10 \times n \times \log_{10}(r_2/r_1)$, where L_1 is the initial noise level at a distance r_1 from the highway, and L_2 is the noise level at a new, further distance r_2 from the highway, and n is a factor (n = 1) representing a 3 dBA reduction for every doubling of distance from a linear noise source of highway traffic. Where L_1 = 55 dBA L_{dn} at 360 feet, then L_2 calculates to 50 dBA L_{dn} at 1,140 feet per this formula:
(Continued): Calc: $L_2 = L_1 - 10 \times n \times \log_{10}(r_2/r_1) = 55 - 10 \times 1 \times Log\ (1{,}140/360) =$ **50 dBA L_{dn}** at 1,140 feet from Highway 20.

so presumably its residents would experience ambient daytime noise levels less than 50 dBA L_{eq}. But when just a front-end loader is operating and generating noise levels of 55.7 dBA $L_{eq\text{-}1\ hr.}$ as calculated at this house, that noise level increase of over 5 dB would be significant. (55.7 – 50 = 5.7 dB increase.) That increase is more than a typical 5 dBA threshold of significance used by many agencies reviewing CEQA projects. That much of an increase is a significant noise impact and it would be clearly audible and likely annoying to these residents. When the cumulative noise levels from multiple pieces of equipment operating simultaneously is considered, this significant, greater-than-5 dBA increase in noise levels due to Project operations would impact additional homes in the vicinity too. Yet the IS/MND utterly fails to disclose, evaluate or mitigate the noise levels this front-end loader (and other equipment) will generate at these nearby homes.

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 and businesses near this Project site. As discussed below, likely noise levels from those backup beepers would be unlawful 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.[40] 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." [41]

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[40] *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.

[41] *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; Available on Internet at: https://www.mdpi.com/1660-4601/16/3/394 A copy of this document is available to County officials if requested.

Such backup alarms are typically the loudest equipment used on such wood chipping operations, so it is inexcusable that the IS/MND is entirely silent on revealing the extent 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 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,[42] which attenuates to about **75 to 90 dBA at 50 feet**,[43] 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 at 1,000 Hertz of 49 dBA L_{max} at residential property lines.[44] These backup alarms beep about once per second at a penetrating frequency of about 1,000 Hertz[45] 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 alarm 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 of 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 commercial businesses.

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[42] 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.

[43] 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.

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

[45] *See:* "Vehicle Motion Alarms: Necessity, Noise Pollution, or Both?" (2011) available online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018517/

TABLE 4 - COMPARISON OF BACKUP ALARM NOISE LEVELS & NOISE ORDINANCE STANDARDS

Sensitive Receptor	Distance to alarm (in feet) See Fig. A	Maximum Allowed Alarm Noise Level Standard for Pure Tones 1000 Hz (dBA L_{max})	Calculated Noise Level at Receptor (dBA L_{max}) See Fig. A	Comply with Noise Standard?
A	1000	49.0	63.0	No
B	1300	49.0	60.4	No
C	1340	49.0	60.1	No
D	1320	49.0	60.2	No
E	1325	49.0	60.2	No
F	1100	49.0	62.1	No
G	1250	49.0	60,8	No
H	1020	49.0	62.8	No
I	1080	49.0	62.2	No
Casino	1010	54.0 (See Note 1)	62.9	No
Office	560	54.0 (See Note 1)	68.5	No
Ag Bldg.	250	59.0 (See Note 2)	75.8	No

Note 1: Per Lake County Noise Ordinance § 41.11(d), an additional allowance of 5 dB above the allowable pressure levels specified in Table 11.3 is allowed when the receiving property is zoned commercial. (i.e. 49 + 5 = 54 dBA L_{max} maximum allowable pure tone noise at 1000 Hz.

Note 2: Per § 41.11(d), an additional allowance of 10 dB above the allowable pressure levels specified in Table 11.3 is allowed when the receiving property is zoned industrial. However the neighboring Ag Building is located on land zoned for agriculture.

These calculations include a reduction in noise levels due to atmospheric attenuation.

BACKUP ALARM NOISE LEVELS AT HOMES "A", "B", "H" AND "I" EXCEED NOISE ORDINANCE LIMITS.

The nearest home (labeled *Home A* on Figure 1, "Noise Sensitive Land Uses") is about 1,000 feet east of this Project's chip yard. The backup alarm noise level at that home would be as loud as about 63 dBA L_{max}.[46] That calculation assumes the backup alarms emit up to 112 decibels as measured at a distance of four feet away. That noise level would be 14 dBA louder than the County's maximum permitted pure tone noise limit of 49 dBA L_{max} for residences. Two more homes, "H" and "I", exist to the west of the Project's chip yard and are located at about the same distance as Home A (1,020 feet and 1,080 feet respectively.) This is strong evidence that the IS/MND is seriously flawed for failing to identify this backup alarm component of the Project being able to emit noise levels that greatly exceed the County's noise standards at surrounding homes. Nothing in the Project Description, mitigations or conditions of approval prohibits the applicant's use of typical backup alarms of that loudness for its mobile equipment.

[46] Calculation: $dB_2 = dB_1 - 10 \times A \times LOG(R_2/R_1) = 112 - 10 \times 2.0 \times LOG(1{,}000' / 4') = 64.0$ dBA L_{max}. With atmospheric attenuation at that 1,000 foot distance, the noise level is reduced 1.0 dB to **63.0 dBA $L_{eq\text{-}1\ hr}$**.

Another home (*Home "B"* on Figure 1) is about 1,300 feet at the closest from this Project's chip yard where backup alarms would be used. At that distance, the backup alarms' noise levels could be up to **60.4 dBA L_{max}**.[47] That noise level would also be unlawful because it could be over 11 dB louder than the County's maximum pure tone noise limit of 49 dBA for residences.

BACKUP ALARM NOISE LEVELS AT HOMES "C", "D", "E", "F", & "G" TO THE NORTH OF HIGHWAY 20 ALSO EXCEED NOISE ORDINANCE LIMITS.

The nearest homes to the north of the Project's chip yard are located between 1,100 to 1,340 feet away from where backup alarms would be used while workers load chips into outdoor storage piles. (See Figure A, Map of "Noise Sensitive Land Uses" on page 6 of this Report for location of Homes "C", "D", "E", "F", and "G"). These distances are estimated using Google Earth's measuring tool and computerized drafting software.

As discussed above, a single backup warning alarm emitting 90 dBA at 50 feet could be as loud as 60.1 dBA L_{max} at **Home "C"** located **1.340** feet away from alarm use. **Noise levels there of 60.1 dBA L_{max} could be 11 dBA greater than County's maximum pure tone limit of 49 dBA L_{max}** for noise of 1,000 Hz frequency for residences.

If two backup alarms are used and emit noise at the same time, such as from the simultaneous operation of the Project's front-end loader and the tractor, those backup alarms' combined noise levels would be even louder by approximately 3 dBA.[48] The County's noise standard in § 41.11(d) for equipment that emits such pure tone noise is based on maximum, not average, noise levels. Therefore, these noise level estimations can be based on the maximum noise levels that typical backup alarms can generate when two alarms are in use at the same time.

Because Homes "D", "E", "F", and "G" are even closer to the Project's chip yard with their distances listed in Figure 1 above, these homes would be exposed to backup alarm noise levels that are even greater than 60.1 dBA L_{max} (or 63.1 dBA L_{max} when two alarms are used.)

CONCLUSION ABOUT BACKUP ALARM NOISE IMPACTS

As shown above, there are numerous homes, a pre-school, and a commercial office where this Project's backup alarms could generate noise levels that exceed the County's Noise Ordinance's maximum permissible standards. Such calculated exceedances present a fair argument of significant noise impacts at those homes and other sensitive receptors. Such a potential violation of the Noise Ordinance must be evaluated in a subsequent environmental study in order to be consistent with CEQA.

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[47] Calculation: $dB_2 = dB_1 - 10 \times A \times LOG(R_2/R_1) = 112 - 10 \times 2.0 \times LOG\ (1{,}300' / 4') = 61.7$ dBA L_{max}. 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}.**

[48] Doubling the amount of noise with two alarms results in a 3 dBA increase in their combined noise levels.

NEARBY PARK WOULD BE EXPOSED TO PROJECT OPERATION NOISE LEVELS THAT EXCEED COUNTY NOISE STANDARDS.

People using the Upper Lake Park located about 1,290 feet to the west of the Project's operational noise sources are entitled to protection from excessive noise.[49] Excessive noise from this industrial wood chipping project that breaches a neighborhood park's maximum acceptable noise standards can subject park-goers to a range of health risks, psychological impacts, and significant annoyance, undermining the intended use and tranquility of the public space.

Parks are designated as noise-sensitive areas in the County's General Plan, recognizing their role in providing places for recreation, relaxation, and social interaction. When noise levels exceed the established limits in these settings, the impacts can extend far beyond simple inconvenience. Even moderate increases in noise above ambient levels in a park can lead to significant annoyance. This is particularly true for intrusive and unfamiliar sounds like those generated by industrial machinery. Annoyance can disrupt leisure activities, make conversation difficult, and detract from the enjoyment of nature and the park environment. The World Health Organization (WHO) identifies noise annoyance as a health effect in itself, linked to feelings of dissatisfaction, disturbance, and irritation. Parks are often sought out for their restorative qualities, offering an escape from the stresses of daily life. High noise levels can counteract these benefits, leading to increased feelings of stress, anxiety, and frustration among visitors. If the Park is too noisy, fewer people will visit it, and may not benefit from a park's value in their lives.

The County's General Plan noise standards normally allow noise levels in neighborhood parks and playgrounds at noise levels not exceeding 60 dBA CNEL.[50] For louder noise levels in such recreational areas between 60 to 65 dBA CNEL, such noise levels are only conditionally allowed "after a detailed analysis of the noise reduction requirements is made and needed insulation features have been included in the design." If the noise level at the Park exceeds 65 dBA CNEL, that noise level is considered to be "Normally Unacceptable" and the General Plan states: "New construction or development should generally be discouraged." But this Project's IS/MND contains no such *detailed analysis.* It appears that this Project's noise exposure could exceed that 65 dBA CNEL normally unacceptable noise level. That would constitute a significant noise impact. Otherwise, in order not to exceed the General Plan's noise standards, this Project's operations must not raise the noise level in the Park to greater than 60 dBA CNEL.

During Project operations, as demonstrated in calculations in a footnote below, its activities could generate noise levels of about **66.2 dBA CNEL** at the Park when Project operation noise is added to the existing noise in the Park at 1,290 feet from this Project's operation area. This Project could simultaneously operate a wood chipper, a tub grinder, a front-end loader, and a chainsaw. The combined noise levels from this equipment can be calculated to a noise level of **67.9 dBA $L_{eq\text{-}1\ hr.}$** at

[49] See Figure C for that distance of 1,290 feet from the Project's central processing area with the chipper to the Park.
[50] *See:* County of Lake General Plan Noise Element, p. 8-3, Table 8-1, "Maximum Allowable Noise Exposure by Land Use", for *Playgrounds, Neighborhood Parks,* with 60 dBA CNEL being the upper limit for "Normally Acceptable" noise," and 65 dBA CNEL being the upper limit for "Conditionally Acceptable" noise if a detailed analysis and needed insulation features are included.

1,290 feet.[51] That noise level calculation has been already reduced by 1.3 dB due to atmospheric attenuation over that distance as explained elsewhere in the report.

Then, since the Project was approved operating for at least 11 hours per day, (7:30 a.m. to 7:00 p.m.), one can calculate the community equivalent noise level (CNEL) used by the General Plan for compliance. That noise level calculates to **66.2 dBA CNEL** when assuming a Project noise level during operations of 67.9 dBA $L_{eq\text{-}1\ hr}$. at the Park for each of 11 hours, and an average ambient noise level of 55 dBA L_{eq} in the Park for each of the other 13 hours of the 24-hour day. That resulting 24-hour CNEL noise level of **66.2 dBA CNEL** when Project operation noise is added would exceed the General Plan's noise standard of 65 dBA CNEL, meaning the General Plan identifies the Project to be "normally unacceptable" and should be "discouraged" without the IS/MND containing the

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[51] Calculation: The estimation of a combined noise level of **67.9 dBA $L_{eq\text{-}1\ hr}$.** at the Park is calculated by adding the separate noise levels of a wood chipper (89 dBA L_{max} with 100% use), a tub grinder (96 dBA L_{max} with 100% use), and a front-end loader (90 dBA L_{max} with 40% use) and a chainsaw (88 dBA L_{max} with 50% use) that could be operated simultaneously to during Project activities. Those are decibel levels at a distance of 50 feet, and each is adjusted by its relative acoustical utilization factor ("UF").

The usage factor is an estimate of the fraction of time each piece of equipment operates at full power. The usage factor is used to estimate L_{eq} from the L_{max} values in this case where the Lake County impact criteria are expressed in terms of L_{eq}. This equation below is used to estimate L_{eq} from L_{max}. It also includes a term for estimating noise at distances other than 50 feet, such as at 1,290 feet to the Park in this calculation:

L_{eq} dBA = L_{max} at 50 feet – 20log(D / 50) + 10log(UF) where D = distance of interest, and UF = usage factor or fraction of time period of interest equipment is in use. To calculate their noise levels at the park 1,290 feet away:
First, with L_{max} value at 50 feet, calculate the L_{eq} noise level for each equipment with its UF at 1,290 feet:

Chipper: 89 dBA L_{max} – 20 x log(1290'/50') + 10 x log(100%) = 89 – 28.2 + 0 = 60.8 dBA $L_{eq\text{-}1\ hr.}$
Grinder: 96 dBA L_{max} – 20 x log(1290'/50') + 10 x log(100%) = 96 – 28.2 + 0 = 67.8 dBA $L_{eq\text{-}1\ hr.}$
Loader: 90 dBA L_{max} – 20 x log(1290'/50') + 10 x log(40%) = 90 – 28.2 - 4.0 = 57.8 dBA $L_{eq\text{-}1\ hr.}$
Chainsaw: 88 dBA L_{max} – 20 x log(1290'/50') + 10 x log(50%) = 88 – 28.2 - 3.0 = 56.8 dBA $L_{eq\text{-}1\ hr.}$

Now add these four noise levels logarithmically with this formula (where L_1 is the chipper noise level, etc):

$$\mathbf{L_{total} = 10 \times Log_{10} (10^{L_1/10} + 10^{L_2/10} + 10^{L_3/10} + 10^{L_4/10})} =$$

$$= 10 \times Log_{10} (10^{6.08} + 10^{6.78} + 10^{5.78} + 10^{5.68}) = 69.2 \text{ dBA } L_{eq\text{-}1\ hr.}$$ at 1,290 feet for these four noise sources.

Source for summation calculation: California Department of Transportation, *Technical Noise Supplement*, 2009.

Next, reduce this combined noise level due to atmospheric attenuation by 1.3 dB, resulting in **67.9 dBA $L_{eq\text{-}1\ hr}$.** The Zoning Ordinance does not specify a project's noise limit at a neighborhood park or playground, but the General Plan does regarding unacceptable noise levels. 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 noise exposure at neighborhood parks and playgrounds greater than 65 dBA CNEL to be "*normally unacceptable*." This Project's noise levels at the Park (of 66.2 dBA CNEL) could exceed 65 dBA CNEL and be "normally unacceptable" by the General Plan's noise standard.

Calculation of CNEL where Project operations expose the Park to 67.9 dBA L_{eq} for 11 hours per day and the average noise levels at the Park during the other 13 hours of a day are 55 dBA L_{eq}: **CNEL = 66.2 dBA**; See https://www.noisemeters.com/apps/ldn-calculator/ for online calculator of "L_{den}" (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 $=10\log_{10}[(1/24)\times\{(10^{(55+10)/10}\times 9 \text{ hrs})+(10^{(67.9)/10}\times 11 \text{ hrs})+(10^{(55)/10}\times 1 \text{ hrs})+(10^{(55+5)/10}\times 3 \text{ hrs})\}] =$ **66.2 CNEL**

[?] See: General Plan Noise Element p. 8-3, Table 8-1.

mandatory detailed noise analysis and noise insulation features. Actually, the Project's noise impact would be even greater yet than this calculation shows if the noise levels from the Project's haul trucks, backup alarms, a wood shredder, a tractor, and a crumbler/grappler are also considered. This General Plan standard exceedance represents a significant noise impact to some users of this Park who rely upon the Park for relaxation and enjoyment free from unpleasant industrial noise.

NEARBY OFFICE BUILDING WOULD BE EXPOSED TO EXCESSIVE NOISE LEVELS DURING PROJECT OPERATIONS.

The IS/MND does not describe that an office building with tribal offices exists at 635 E. Hwy 20 about 700 feet west of the Project's center of operations that would have a noisy wood chipper and other equipment use. At that distance, that office building would be exposed to Project noise levels that can substantially exceed the County's maximum allowable standards. The Zoning Ordinance allows a maximum daytime noise level of 60 dBA $L_{eq\text{-}1\ hr.}$ at that office building when the receiving property is commercial.[52] Presuming the Project uses the same equipment simultaneously as discussed with calculations on the previous pages (a wood chipper, a tub grinder, a front-end loader, and a chainsaw), the noise level generated by Project operations at a distance of about 700 feet to this office building could be as high as about **73.2 dBA $L_{eq\text{-}1\ hr}$**.[53]

That noise level would exceed the County's maximum standard of 60 dBA $L_{eq\text{-}1\ hr}$ **<u>by over 13 dBA.</u>** Office workers depend upon protection of excessive noise in order to communicate and conduct their business. This much of an exceedance is evidence of a significant noise impact at that location.

If just a loud wood chipper by itself is operating at that 700-foot distance, its noise level when measured at the office building could be about **65.4 dBA $L_{eq\text{-}1\ hr}$**.[54] That noise level would exceed the County's maximum allowed noise standard of **60 dBA $L_{eq\text{-}1\ hr.}$** and would also create a significant noise impact there.

Office workers exposed to such excessive noise can experience a wide range of problems impacting their health, well-being, and productivity. The constant or intermittent loud noise, characteristic of industrial machinery and processes like wood chipping, creates a disruptive environment far exceeding typical office background noise. Excessive noise is a recognized stressor that can trigger physiological responses, including increased heart rate and blood pressure. Long-term exposure has been linked to a higher risk of hypertension and other cardiovascular problems. The unpredictable and intrusive nature of loud industrial noise can significantly elevate stress levels, leading to symptoms such as headaches, fatigue, irritability, difficulty relaxing, and increased anxiety.

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[52] See: Noise Ord., § 41.11, Table 11.1 (Maximum one-hour equivalent sound pressure levels, daytime, commercial)

[53] Calculation: Using the results of calculations for noise exposure at the nearby Park during operation of multiple equipment types, where at a distance of 1,290 feet the combined noise level would be as much as 67.9 dBA $L_{eq\text{-}1\ hr.}$, then at a distance of 700 feet, this is the calculated noise level:

$dB_2 = dB_1 - 10 \times A \times LOG(R_2/R_1) = 67.9 - 10 \times 2.0 \times LOG\ (1{,}290' / 4') =$ **73.2 dBA $L_{eq\text{-}1\ hr}$.**

[54] Wood chippers have been rated at 89 dBA L_{max} at 50 feet by Napa County. To estimate that noise level at 700 feet: <u>Calculation</u>: 89 dBA L_{max} – 20 x log(700'/50') + 10 x log(100%) = 89 – 28.2 + 0 = 66.1 dBA $L_{eq\text{-}1\ hr.}$ Reducing that value by 0.7 dB for atmospheric attenuation in 700 feet, the resulting noise level at the office would be **65.4 dBA $L_{eq\text{-}1\ hr.}$**

Loud and distracting noises make it significantly harder for office workers to concentrate on tasks requiring focus, analytical thinking, or creative problem-solving. This can lead to more errors and a decrease in the quality of work. Studies have shown that chronic noise exposure can negatively impact cognitive functions such as memory, attention span, and the ability to learn new information. The combination of reduced concentration, increased errors, and mental fatigue directly translates to lower overall productivity. Tasks may take longer to complete, and the volume of work may decrease. Loud background noise makes verbal communication challenging, leading to misunderstandings, the need to repeat information, and increased frustration during conversations and meetings. It can also make it difficult to hear important phone calls or virtual meeting participants. Persistent unwanted noise is a significant source of annoyance and frustration, negatively impacting mood and job satisfaction. Elevated stress levels and frustration due to noise can lead to increased irritability and a greater potential for conflict among colleagues. A noisy and disruptive work environment can significantly lower overall job satisfaction and contribute to a negative perception of the workplace. If the noise is an external factor that the office occupants have little control over, it can lead to feelings of helplessness and exacerbate stress. The specific intensity, frequency, and duration of the noise from the wood chipping and industrial equipment will influence the severity of these problems. However, even noise levels that would not cause immediate hearing damage can still have significant detrimental effects on the office workers' health, well-being, and ability to perform their jobs effectively.

CASINO WOULD BE EXPOSED TO OPERATION NOISE LEVELS THAT EXCEED COUNTY NOISE STANDARDS.

The Running Creek Casino is located about 1,010 feet to the northwest from where the Project's operations would use heavy equipment. (See Figure A.) Its distance to the center of the wood processing area that generates the most noise is approximately 1,240 feet. (See Figure C.) At that distance, this Casino would be exposed to noise levels that exceed the County's noise standards. The County allows noise levels in the daytime at commercial land uses like a casino up to 60 dBA $L_{eq\text{-}1\ hr.}$[55]

The IS/MND fails to adequately analyze the Project's noise impact on this casino. At the casino building with its distance of about 1,240 feet from the Project's center of operations, that operational noise level could be as high as about **68.2 dBA $L_{eq\text{-}1\ hr.}$**[56] This calculation is based upon the simultaneous use of a wood chipper, tub grinder, front-end loader, and a chainsaw during the biomass processing operations. This calculation does not include the additional noise from the Project's use of backup alarms or haul trucks at even closer distances to the casino. That noise level exceedance of more than 8 dBA above the County's maximum noise standards constitutes a significant noise impact.

[55] See Zoning Ordinance, p. 41-6, Table 11.1: Maximum one-hour equivalent sound pressure levels (A-Weighted - dBA), for the commercial category: **60 dBA $L_{eq\text{-}1\ hr.}$** If this noise standard is followed strictly, since the Casino parcel is zoned "agricultural," the County would apply the maximum 55 dBA $L_{eq\text{-}1\ hr.}$ standard for listed for residential land uses because the Table 11.1 footnote states the residential category applies to "all agricultural and resource districts."
[56] This calculation uses the previous calculated noise level at the Park, and adjusts it for the slightly shorter distance.

NEARBY AG BUILDING WOULD ALSO BE EXPOSED TO EXCESSIVE NOISE LEVELS DURING PROJECT OPERATION.

The IS/MND does not adequately describe that an Ag Building exists about 243 feet west of the Project's center of operations. At that distance, that agricultural building would be exposed to severe Project noise levels that greatly exceed the County's standards. The County's maximum allowed daytime noise level in agricultural (as well as residential) zones is **55 dBA $L_{eq\text{-}1\ hr}$**.[57] At that 243-foot distance, this Project's operational noise from the same equipment discussed above would be as high as about **82.4 dBA $L_{eq\text{-}1\ hr.}$**. (See Table 2 and Figure 3.) That is strong evidence that this Project will create a serious noise impact at that location.

The IS/MND, PDF p. 88, on its Sound Level Analysis map, incorrectly states that this Ag Building is expected (to have) continuous sound levels under 65 dBA. But 65 dBA is not the applicable noise standard for this receiving land use. That prediction made by the applicant's representative is also flawed because it presumes only one equipment type will be operating at a time. When multiple equipment operations simultaneously occur within the Project site, their combined noise levels at the Ag Building will be much louder than this Sound Level Analysis page in the IS/MND predicts.

RESIDENCES WITHIN 2,000 FEET COULD ALSO BE EXPOSED TO EXCESSIVE NOISE LEVELS DURING PROJECT OPERATION.

The people most likely to be harmed by this Project's loud noise levels are residents in the neighborhood. Besides not having noise disturbances heard within their homes, they are entitled to enjoy their outdoor patios and back yard recreational features without suffering from excessive noise originating from this Project.

As shown on Figure A and Figure C, over a dozen homes are located less than 2,000 feet from where this Project's onsite operations would occur. Just the processing operation's noise originating from the southern end of the Project site generated by the wood chipper, grinder, front-end loader, and other equipment, when measured at those homes and beyond up to 2,000 feet, the Project's noise levels could be about **64.1 dBA $L_{eq\text{-}1\ hr}$**.[58] This noise level would exceed the County's maximum allowed daytime noise level at residences of 55 dBA $L_{eq\text{-}1\ hr}$.

At closer distances, the Project's noise levels at these homes would be louder yet. Some on-site processing operations that take place at the north end of the 5-acre site would be closer to homes located north of E. Highway 20 and could generate substantial noise levels at those homes.

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[57] Zoning Ordinance, p. 41-6, Table 11.1: Maximum one-hour equivalent sound pressure levels (A-Weighted - dBA), which notes that: "The Residential category also includes all agricultural and resource zoning districts."

[58] Assuming combined noise levels from operation of multiple equipment as described above, where the noise level at 1,290 feet could be 67.9 dBA $L_{eq\ 1\ hr,}$ this is the formula when the noise level at 1,290 feet would be 67.9 dBA $L_{eq\text{-}1\ hr}$.:
Calculation: $dB_2 = dB_1 – 10 \times A \times LOG(R_2/R_1) = 67.9 – 10 \times 2.0 \times LOG\ (2{,}000' / 1{,}290') =$ **64.1 dBA $L_{eq\text{-}1\ hr}$**.

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 wood 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. Noise from wood chippers generate the highest noise levels in the 20–50 Hz frequency range which is a very low frequency. 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. Low frequency noise like that is even more intrusive than the above calculations predict, since low-frequency noise penetrates homes with less dampening compared to noise with a wider range of frequencies. Low frequency noise can be very annoying if it penetrates residential walls and causes objects on shelves within neighboring homes to vibrate and rattle.

This kind of an incompatible neighboring land use is generally solved by not allowing heavy industrial operations to be so near 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 Draft EIR 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."

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.

The IS/MND is inadequate for its utter failure to consider such low-frequency noise impacts.

COUNTY FAILED TO INCLUDE ANY NOISE MITIGATIONS BUT REASONABLE MITIGATIONS ARE FEASIBLE.

The IS/MND determined, but without valid analysis or evidence, that this Ag Forest Project would not create significant noise impacts. Accordingly, the IS/MND and the Planning Commission's approval included no noise mitigations. However, a previous 2020 IS/MND for the Red Hills BioEnergy project at 7130 Red Hills Rd, Kelseyville by the same project applicants did require some noise mitigations, suggesting that the County should impose noise mitigations on the current Project as well because it too would otherwise severely impact some neighbors.

Such extremely loud construction noise is not reasonable. It is somewhat avoidable because there are commonly available and routinely used methods to quiet such construction noise. For example, as noise mitigations, temporary sound curtains can be erected to protect neighbors. Or affected homes could be retrofitted with better windows that block outdoor noise. Somewhat like before, the County could require back-up alarms to be adjusted to the lowest allowable levels or to a specified limit, or require backup alarms that emit bright light to alert workers for their safety instead of noise. A noise mitigation could be adopted to require contractors to implement certain specified noise-reducing measures during construction work.

This Noise Impacts Report makes numerous fair arguments supported by substantial evidence to demonstrate that this Project would create significant noise impacts at many nearby sensitive receptors. CEQA requires the County to impose noise mitigations under these circumstances. As recently as May 1st, the appellate court in *Los Angeles Parks Alliance v. Los Angeles County Metro. Transportation Authority* (May 1, 2025) decided that all feasible mitigation measures must be identified for such significant impacts:

> Accordingly, an EIR must identify and describe all feasible mitigation measures for each significant impact. (Guidelines, § 15126.4, subd. (a); § 21002; Clover Valley, supra, 197 Cal.App.4th at p. 244.) In this context, "`[f]easible' means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." (§ 21061.1.) Our Supreme Court has described the mitigation section as the "core" of an EIR. (*Goleta Valley, supra, 52 Cal.3d at p. 564; Los Angeles Unified School Dist. v. City of Los Angele*s (1997) 58 Cal.App.4th 1019, 1028-1029 (LAUSD).)
> "The agency may not approve a project with significant environmental impacts `if there are . . . feasible mitigation measures available which would substantially lessen' the project's significant environmental impacts." (*Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 348)

That court decision noted that insulating buildings can greatly reduce construction noise, especially when windows are sealed and cracks and other openings are filled.

Other noise mitigations could be considered and possibly be adopted.

Construction-Related:

- Require construction activities to be placed as far as possible from the nearest off-site land uses. Some construction equipment could otherwise be unnecessarily intrusive
- Require construction activities to be scheduled to avoid operating several loud pieces of equipment simultaneously; alternatively to reduce the overall length of the construction period, combine noisy operations to occur in the same time period if it will not be significantly greater than if operations were performed separately.
- Require the replacement of noisy equipment with quieter equipment, such as using rubber-tired equipment rather than track equipment, or using quieted and enclosed air compressors with properly working mufflers on all engines.
- Require construction contractor to avoid using vibratory rollers and packers near sensitive areas.
- Require construction staging areas to be as far from sensitive receptors as reasonably possible.
- Require all construction truck traffic to be restricted in hours so that deliveries are not received at times where the noise could be sleep-disturbing.
- Require the construction of noise barriers, such as temporary walls or piles of excavated material, between noisy activities and noise-sensitive receivers, including on all sides of the Project site.
- Require flexible sound control curtains to be placed around all noisy equipment when in use and more extensive noise control barriers protecting adjacent residential structures.
- Require power construction equipment operated at the project site to be equipped with effective state-of-the-art noise control devices (e.g., equipment mufflers, enclosures, and barriers) with contractors maintaining all sound-reducing devices and restrictions throughout the construction period and keeping documentation showing compliance.
- Require contractors to use either plug-in electric or solar powered on-site generators to the extent feasible.
- Require grading and construction contractors to use equipment that generates lower vibration levels such as rubber-tired equipment rather than metal-tracked equipment, such as a combination loader/excavator for light-duty construction operations.
- Two weeks before the commencement of construction at the Project Site, require notification to be provided to the immediate surrounding off-site properties that disclose the construction schedule, including the various types of activities and equipment that would be occurring throughout the construction period. A noise disturbance coordinator and hotline telephone number shall be provided to enable the public to call and address construction-related issues.
- Require all mitigation measures restricting construction activity to be posted at the Project Site and all construction personnel shall be instructed as to the nature of the noise and vibration mitigation measures.
- Require a noise monitoring/control plan that includes absolute noise limits for classes of equipment, noise limits at lot lines of specific noise sensitive properties, specific noise control treatments to be utilized (such as the above-mentioned measures), and a designated compliance officer to respond to promptly respond to complaints and take immediate correction action if limits/restrictions are not complied with.

Operation-Related:

- Prohibition of amplified sounds in outdoor spaces and/or meet specified dBA levels.
- Before the issuance of a Certificate of Occupancy, require the sound levels to be measured consistent with documentation of the measurements being submitted to the County's building officials for the file to demonstrate specified noise levels are not exceeded at the property lines.
- Use insulation or construct solid barriers between noise sources and noise receivers.
- Separate noise sources from noise receivers by distances sufficient to attenuate the noise to acceptable levels.
- Limit the hours of use for the equipment.
- Installation of double-pane exterior windows meeting specified Sound Transmission Coefficient rating for the Project for the adjacent residential uses.
- Redesign the source of equipment noise to radiate less noise (e.g., substitute a quieter equipment type process or enclose the source with sound absorbent material).
- All outdoor-mounted mechanical equipment be enclosed and impermeably-shielded with it breaking the line-of-sight from off-site noise-sensitive receptors.

PROJECT'S UNLAWFUL SEGMENTATION OF OPERATIONS RESULTS IN INADEQUATE NOISE LEVEL ANALYSIS AND MITIGATION.

This Ag Forest Project is being proposed more broadly as operating on more than one property along with additional chipping operations to be located elsewhere at a considerable distance. The IS/MND, on page 6, states: "*Forest materials are pre-processed into large wood chips offsite, mostly at the Donahoo facility at 8605 Bottle Rock Road, Kelseyville CA 95451, 21.2 miles away."* Because the trucking involved in transporting those forest materials or chips is necessarily linked to the Project, then the noise impacts that may be caused by such trucking must also be considered in the IS/MND. The IS/MND's noise analysis section, p. 51, even acknowledges that: *"Because the wood would be processed at the Donahoo site before being delivered to the site, there would not be a lot of noise that is normally associated with woody forest biomass projects that also process the wood on the site*." Yet the IS/MND never examines the noise impact of such related off-site trucking work. The IS/MND is alleging that this Project will be quieter because a lot of its noise would occur at a distant location. Yet that Donahoo location may not be available according to neighbors who have examined the matter.

Alternatively, if that distant wood processing is not permitted, then work on the Ag Forest site might be increased beyond what the IS/MND currently describes. That appears to have also occurred with some wood processing activities and equipment having been omitted at the Red Hills site owned by the Project applicant due to a 2023 out-of-court settlement and transferred to the Highway 20 Project site. This confusing and indefinite Project Description prevents the public from being able to adequately assess how much noise this Project would generate in its neighborhood. This problem may also violate CEQA.

A public agency may not segment a large project into two or more smaller projects in order to mask serious environmental consequences. CEQA prohibits such a "piecemeal" approach and requires

review of a Project's impacts as a whole. "Project" is defined as "the whole of an action," which has the potential to result in a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. CEQA mandates "that environmental considerations do not become submerged by chopping a large project into many little ones — each with a minimal potential impact on the environment — which cumulatively may have disastrous consequences." Before undertaking a project, the lead agency must assess the environmental impacts of all reasonably foreseeable phases of a project.

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 Noise Impacts Report provides fair arguments backed by substantial evidence that the Project's likely construction and operational noise impacts may exceed County noise standards and that the Project may accordingly have significant noise impacts. As a result, this IS/MND is inadequate and inappropriate for the Project's CEQA review. The Project's possible loud noise levels at nearby homes and other sensitive receptors 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
Professional Planner, Designer, INCE Associate (Institute of Noise Control Engineering)
Dale La Forest & Associates

Attachment 1 - Statement of Qualifications

Dale La Forest & Associates
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ATTACHMENT 1: 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 50 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 – 2025 **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, 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	
7/15/24	Norwalk Specific Plan Area Code Amendment, C.E., City of Norwalk, CA
2/28/24	Pacific Resort Plaza Development Project, revised, MND, Anaheim, CA
2/20/24	Golden Eagle Charter School, MND, County of Siskiyou, CA
4/13/23	Hilton Home2 Hotel Project, C.E., Hawthorne, CA
3/18/23	Mountain Townhomes Project, MND, Mt. Shasta, CA
2/5/23	Cherry Avenue Warehouse Project, C.E., Long Beach, CA
8/8/22	Kidder Creek Orchard Camp, EIR, Siskiyou County, CA
5/15/22	Summit Lofts Project, C.E., Mt. Shasta, CA
8/9/21	Pacific Edge Hotel Remodel Project, MND, Anaheim, CA
7/21/21	Jeff Hotel Project, MND, Culver City, CA
3/17/21	Pacific Edge Hotel Remodel Project, MND, City of Laguna Beach, CA
1/25/21	Hyatt House Hotel Project, C.E., Los Angeles, CA
11/26/20	Santa Maria Raceway Project, CEQA C.E., Nipomo, CA
9/14/20	Golden Eagle Charter School, MND, City of Mt. Shasta
8/31/20	Cargill Solar Sea Salt Activities Project, EA, San Francisco, CA
8/15/20	Redhills BioEnergy Project, MND, Lake County, CA
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
12/18/18	Altes Special Events Project, MND, Mt. Shasta, CA
11/6/18	Dewey Hotel Project, C.E., Los Angeles, CA
8/16/18	Love's Travel Stop Project, EIR, Weed, 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 C

Laura Hall

From: Laura Hall
Sent: Thursday, February 8, 2024 11:37 AM
To: Michelle Irace
Subject: RE: [EXTERNAL] Re: Air Quality and Greenhouse Gas (GHG) Report with a Health Assessment:

Michelle,

Too late, I already replied. I'll check out what he sent.

Thank you,

Laura

From: Michelle Irace <Michelle.Irace@lakecountyca.gov>
Sent: Thursday, February 8, 2024 11:35 AM
To: Laura Hall <Laura.Hall@lakecountyca.gov>
Subject: RE: [EXTERNAL] Re: Air Quality and Greenhouse Gas (GHG) Report with a Health Assessment:

I'm working on something else, but don't reply and let's chat on Monday . We don't need to respond to him right awa.

From: Steve <srr@woodbridge-energy.com>
Sent: Thursday, February 8, 2024 11:30 AM
To: Laura Hall <Laura.Hall@lakecountyca.gov>
Cc: Thomas Jordan <thomas.jordan@sv-nsn.gov>; Michelle Irace <Michelle.Irace@lakecountyca.gov>
Subject: Re: [EXTERNAL] Re: Air Quality and Greenhouse Gas (GHG) Report with a Health Assessment:

FYI,

Our site is equivalent of 1 semi truck in HP on the road with basically no NOx. We don't use oxygen in the gasification system. The amount of CO2 from the Mainspring linear generator is about 1/10 of that of a Natural Gas Fixed Generator. See BAAMD Engineering Report. The NOx is less than 1/5th.

The Bay Area Air board has approved the use of the Mainspring linear generators and are not a ICE unit.

In Mainspring's linear generator, electrically-controlled linear motion of oscillators compress a fuel and air mixture until the mixture reacts uniformly and near instantaneously without a flame or burning. Since there is no flame or burning (i.e., no combustion), the reaction occurs at low temperatures (less than 1500 C) and, as a result, produces near-zero NOx emissions. The energy from the low-temperature reaction drives linear motion of the oscillators, which is directly converted into electricity, and the electrically-controlled linear motion of the oscillators drives the reaction.
Much like a fuel cell, Mainspring's linear generator only operates while producing electricity. This is in contrast to an engine, which can only operate by producing mechanical energy.

Mainspring unit generator
Emissions NOx: < 2.5 ppm (<0.07 lb/MWh)
Noise: < 70 dBA @ 6 feet

https://news.ucr.edu/articles/2023/04/17/methane-megafires-more-spew-we-knew

I build solar project and wind. They also have people that hate that technology and energy source.

Solar produces an estimate 50gams of CO2 for every kWh of produced in its life cycle. Nothing is for free.

The article that Biomass is worse than Coal is manipulating data to reinforce the agenda they are promoting.

They are calculating that you are cutting down the forest for the purpose of biomass power generation and not the fact that the forest material is already cut and being trucked for disposal or burned in the forest with little or no control of the pollutants being generated and that the burning produces no value to the community that needs energy. What do you do with the waste? If you don't burn it then it can compost and create major sources of methane that is 4x worse than CO2.

Our system used no oxygen to gasify the woody biomass and therefor creates almost no NOx. The CO2 is countered by the Biochar created with a value of 3x of its weight. So Net Zero carbon foot print.

So here is the conclusion that one of your articles states.

Conclusion:
Recommendations and Solutions Criteria for Just, Economical, Environmentally Sound Biomass Utilization In light of the continued and increasing production of woody material from wildfire management in forests, the presence of facilities to utilize this biomass is important. In comparison to open burning and landfilling, using biomass for electricity or heat production reduces pollution and creates opportunities to sell electricity and meet community power needs. We propose that any new biomass facilities meet the following criteria:

1. Feedstock comes only from ecological thinning, mill residues, or home hardening and defensible space practices as opposed to logging activities 2. Small-scale – 5 MW or less, in accordance with BioMAT program requirements, or slightly larger facilities approved on a case-by-case basis
3. No more facilities are built than are needed to process the wood waste associated with sustainable forest management activities within a reasonable distance of the facility. This avoids creating an industrial complex that requires constant and increasing feedstock
4. Companies engage local communities for input and collaboration in the planning, design, and deployment of new facilities
5. Facilities are located close to the sources of biomass production, which tend to be rural and mountainous locales, to reduce emissions and costs of long-distance shipping; facilities will not be sited in already over-polluted Central Valley communities.
6. When feasible, new facilities should use gasification or pyrolysis technologies, along with the best available emissions controls, to minimize GHG impacts
7. When possible, feedstock is produced by work crews that create jobs for local communities and Indigenous peoples

All of these are exactly what we are doing.

Regards
Steve

On Feb 8 2024, at 9:32 am, Laura Hall <Laura.Hall@lakecountyca.gov> wrote:

Steve,

What extensive research did you do and can you provide it please.

Regards,

Steve

On Feb 8 2024, at 7:15 am, Laura Hall <Laura.Hall@lakecountyca.gov> wrote:

Steve,

After extensive research to determine if there was an alternative to requiring an Air Quality and Greenhouse Gas (GHG) Report with a Health Assessment, staff has determined that a report will be necessary for the CEQA analysis. This is due to residents being less than 1,000 feet from the facility and daily truck trips from the Donohoe facility to the project site. This report should be completed by a qualified professional who specializes in air quality reporting in California.

As we are waiting on the Air Quality/GHG Report with Health Assessment and the revised Biological Assessment Report, I will continue working on the initial study.

Thank you for your patience.

Sincerely,

Laura

Laura L. Hall, MS

Senior Planner

Community Development Department

Planning Division – 3rd Floor

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