

MEMORANDUM

To: County of San Diego
Attn: Rouya Rasoulzadeh, Madeline Mattson, Don Chase

From: Michael Baker International
Attn: Dan Wery, Eddie Torres, Zhe Chen, Shannon Liska, Cameron Savoie

Date: December 27, 2024

Subject: County of San Diego Process Improvements, Zoning Ordinance Amendment: Amplified Music at Wineries – Noise Impact Best Practices and Zoning Ordinance Recommendations

PURPOSE

The purpose of this memorandum is to provide best practice and Zoning Ordinance amendment recommendations for boutique wineries in unincorporated San Diego County as they relate to live music performances. The recommendations include techniques, technologies, and development standards utilized to mitigate the noise impacts from amplified music on sensitive receptors. Recommendations include limiting volume, providing appropriate hours of operation, creating setback distances, and allowing for site specific noise studies. Recommendations also provide methods to address violations and enforcement. This memorandum provides strategies and approaches to inform the drafting of amplified music regulations to help ensure compliance with the existing Noise Ordinance and minimize violations.

The memorandum's goal is to evaluate and present the potential noise impacts from amplified music during live music performances at boutique wineries; determine if this type of amplified noise complies with existing applicable noise regulations; and establish recommendations for Zoning Ordinance amendments to improve compliance with the Noise Ordinance, help avoid and minimize violations and minimize the noise impacts on nearby sensitive receptors. The memorandum does this in three main parts.

First, it provides a case study noise analysis taken at five wineries in the unincorporated County. The noise analysis included recording, measuring, and documenting sound levels during live music performances at the five wineries. Measurements were taken before, during, and after the live music performances. The results of the noise analysis demonstrate whether the documented noise levels exceed existing regulatory thresholds. Second, the memorandum reviews the winery ordinances of five other jurisdictions for best practices and enforcement strategies. The ordinance review analyzes standards, requirements, and enforcement practices of jurisdictions that allow live music at wineries. Third, the memorandum takes the results learned from the case studies and ordinance review analysis to provide a set of recommendations for the Zoning Ordinance amendments. These recommendations incorporate the results from noise measurements conducted at the five wineries and ordinance review to ensure that the addition of live music performance would not cause exceedance of the noise level significance thresholds. The recommendations are aimed at ensuring noise levels of amplified music comply with County noise regulations and provide options for enforcement as well.

BACKGROUND OF THE TIERED WINERY ORDINANCE

The Boutique Winery project originated in August 2010 when the County of San Diego Board of Supervisors approved the Tiered Winery Ordinance, which established a tiered regulatory system for wineries, including a specific “Boutique Winery” tier. This tier allowed smaller wineries to operate tasting rooms alongside agricultural vineyard operations. In 2016, the Board of Supervisors adopted a set of Zoning Ordinance amendments to prescribe reasonable standards and procedures for the operations of wineries and to allow more flexibility in sourcing their wine, while still prioritizing the use of locally grown grapes. Through the years, the winery regulations have been shaped through ongoing public input, with multiple drafts and revisions based on feedback from stakeholders.

In February 2024, the Board directed County staff to explore the possibility of permitting live amplified music at boutique wineries under reasonable limits. This memorandum presents the best management practices identified through case study results and analysis of the zoning code and staff interviews with comparable counties.

CALIFORNIA ENVIRONMENTAL QUALITY ACT – SAN DIEGO COUNTY GUIDELINES

The *County of San Diego Guidelines for Determining Significance for Noise* (Guidelines) provide guidance for evaluating substantial environmental effects that may occur from noise. Specifically, the Guidelines address and are consistent with significance criteria listed in the California Environmental Quality Act (CEQA) Guidelines, Appendix G, Section XIII (Noise). Per Appendix G, a project would have a significant impact if it resulted in “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.” Thus, the Guidelines as established by the County can be used to determine if there is a CEQA impact.

According to the Guidelines, a significant impact in noise would occur if (1) projects expose sensitive receptors to exterior noise levels in excess of 50 decibels (dBA) during daytime (7 a.m. to 10 p.m.) and 45 dBA during nighttime (10 p.m. to 7 a.m.) or (2) there is an increase of 3 dBA over the preexisting ambient noise levels.

FUNDAMENTALS OF SOUNDS AND ENVIRONMENTAL NOISE

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air and is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear deemphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) was developed. Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner like the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is perceived to be twice as loud and 20 dBA higher is perceived to be four times as loud, and so forth. A change of 1 dBA is typically imperceptible, while a change of 5 dBA is clearly perceptible. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). On this scale, the human range of hearing extends from approximately 3 dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, the decibel scale (dB, unweighted) is used to quantify

sound intensity. Noise can be generated by several sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations.

Noise generated by mobile sources typically attenuates (is reduced) at a rate between 3 dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance.

Noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance.

There are several metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound. This is commonly used to describe the “average” noise levels within the environment. Noise exposure over a longer period is often evaluated based on the day-night sound level (L_{dn}). This is a measure of 24-hour noise levels that incorporates a 10-dBA penalty (or an additional 10 dBA) for sounds occurring between 10:00 p.m. and 7:00 a.m. when sounds seem to be louder. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient (background) noise conditions. Typical L_{dn} noise levels for light- and medium-density residential areas range from 55 dBA to 65 dBA.

Similarly, community noise equivalent level (CNEL) is a measure of 24-hour noise levels, not an actual sound level heard at any time, that incorporates a 5 dBA penalty for sounds occurring between 7:00 p.m. and 10:00 p.m. and a 10 dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.¹

CASE STUDIES: WINERY NOISE MEASUREMENTS

To understand the existing conditions at wineries in the County and to quantify existing ambient noise levels and noise levels during live music performances, Michael Baker International conducted short-term (L_{eq}) noise measurements of ten minutes during outdoor live music performances at five wineries throughout the County. The five wineries were selected based on their scheduled live music performances and unincorporated community planning areas. The case studies included a variety of crowd sizes and event scales. Note that not all of the wineries were boutique wineries. Three different planning areas were included in the case study. Measurements were conducted on weekends in August and September. A range of music performances were selected, representing different music genres, group instrumentation, and number of performers. Selections were made based on publicly available information on music performances. The musicians were not contacted in advance of the measurements. In addition to measurements on each winery’s property, two to three off-site measurements were conducted to document noise levels at or as close as possible to nearby sensitive receptors. All performances and measurements were outdoors.

It should be noted that Michael Baker International did not ask leading questions about the types of live

¹ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

music performances or the crowd size in advance of the visits but only confirmed the presence of a live music performance on the day measurements were taken. This approach ensured that the measurement results were not influenced by any preconceived notions or specific selections that could maximize or minimize potential compatibility issues.

Noise Measurement Methodology

Consistent with the Guidelines, Michael Baker International conducted noise measurements at five wineries located in three different planning areas in the unincorporated County. A noise measurement was conducted prior to the live music performance to collect the ambient noise level at each winery. Another noise measurement was conducted after the start of the live music performance at the same location. Additionally, noise measurements were conducted at/near surrounding sensitive receptors during the live music performance. To establish the baseline ambient noise levels at the nearby sensitive receptors, ambient noise measurements were taken on a separate day without any live music performances or major events scheduled at the nearby wineries. The measured ambient noise levels were used to determine the increase in ambient noise levels resulting from the live music performance.

All noise measurements were conducted with a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for Type I (precision) sound level meters. Noise measurements at the wineries were conducted as per the guidelines in the California Department of Transportation *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, Section 3, *Measurements and Instrumentation*, and the San Diego County Code of Regulatory Ordinance, Chapter 4, Title 3, Division 6, Section 36.403, *Sound Level Measurement*.

The noise measurement methodology took note of the number of musicians, types of instruments played, speakers used, musician setup, number of people at the winery, and other sources of noise (traffic, airplanes, other music sources, nearby events, etc.).

Case Study Results

The case study results illustrate that, generally, live music decibel levels at the sensitive receptors did not exceed the County of San Diego exterior noise thresholds. [Table 1, Case Study Summary and Comparison](#), shows the overall summary between the ambient noise levels without music and noise levels with the live music performance. The table shows each measurement number ID, winery, ambient noise level, noise level with music, the distance from the noise source, if the noise level exceeds either County threshold individually, if the noise level exceeds both County thresholds, and if the exceedance of both thresholds is due to the live music performance.

County of San Diego guidelines have discrete exterior noise thresholds (1) 50 dBA during daytime hours and (2) 3 dBA increase over ambient noise levels if the ambient noise level is higher than 50 dBA. Noise levels exceeded both of these thresholds at three of the thirteen off-site sensitive receptor locations (Measurement ID Numbers 3, 5, and 13). However, live music was not the primary cause of the noise impact at two of these measurements. At Measurement ID 5, the exceedance was mainly due to the traffic noise along the main access route to the winery. It should be also noted that based on the observations made by Michael Baker International, there was an event occurring at an adjoining and unrelated property, which resulted in additional traffic activities at the time of measurement during the live music performance. Although noise from the live music performance could be heard at this measurement location, traffic noise was the major noise contributor during the measurement.

At Measurement ID 13, the exceedance of the 50 dB County standard was mainly due to the other nearby noise sources. Based on the observation, music from the winery could barely be heard due to the distance (approximately 1,550 feet from the winery). Furthermore, loud music was playing from a residence to the southwest, which was in between the winery and the measurement location. There was also moderate traffic noise observed as it is located at the entrance to a private driveway leading to multiple residences. As such, the major noise sources at this location were the loud music from a house and the traffic noise, rather than the live music performance.

Only at Measurement ID 3 was the exceedance of the County Noise Ordinance attributable to the live music. The exceedance at Measurement ID 3 is mainly due to the loudest measurement at 91 dBA and close proximity of the sensitive receptor (200 feet to the east) to the winery activity area (live music performance, food truck, and parking lot), and the clear line of sight (i.e. a lack of any intervening attenuation factors) between the live music performance and the sensitive receptor.

The case studies illustrated that speaker size and setup did not impact whether or not a performance exceeded the noise standard. Thus, speaker size and type does not need to be regulated in the Zoning Ordinance. Due to the variety of speaker types, quality, and ability to change output level, regulating speaker size or type would not be an effective regulation.

Case Study Observations

The case studies illustrated a number of observations regarding what impacts noise levels at wineries. Notably, the type of performance arrangement significantly influenced the noise levels. Larger bands with multiple instruments at Winery 1 and Winery 3 generated higher noise levels, resulting in larger changes to ambient noise levels. These performances had multiple musicians and both included drum sets and amplified electric guitar and bass. Winery 2 had moderate noise levels where the performance included a variety of instruments as well, including a drum set, a guitar, a bass guitar, a tambourine, a washboard, a violin and a mandolin. Solo performances at Winery 4 and Winery 5 produced lower noise levels, leading to smaller changes to ambient noise levels. These performances were a single musician with an amplified acoustic guitar. It should also be noted that performances with larger bands involved higher audience attendance and larger crowds, which contributed to the overall noise levels. However, musical instruments and speakers were still the main contributors of the overall noise levels.

Observations from the case studies found that there are a number of contributing factors to the exceedance of noise thresholds, including proximity to noise sources, ambient noise sources, and line of sight / lack of attenuating factors. Each of these items is described below.

- ***Proximity to Noise Sources:*** Sensitive receptors located close to the live music performance areas experienced higher noise levels.
- ***Ambient Noise Sources:*** In some cases, existing ambient noise sources such as traffic, crowd noise, and other activities contributed significantly to the overall noise levels.
- ***Line of Sight:*** Locations with a clear line of sight to the noise source experienced noise levels without any attenuating factors other than distance due to the lack of natural or artificial barriers that might deflect or absorb sound.

Based on the results from the case study, possible amendments to the Zoning Ordinance may include regulating maximum performance levels, and minimum setback distances based on outdoor

performance levels. Specific recommendations are provided in the Recommendations for Zoning Ordinance Implementation section.

Table 1
Case Study Summary and Comparison

Measurement Number ID	Wineries	Ambient Noise Level dBA (L _{eq})	Noise Levels with Live Music dBA (L _{eq})	Distance from Noise Source	Noise Levels with Live Music Exceeds County of San Diego Exterior Thresholds? (>50 dBA L _{eq})	Change in Noise Level (between Ambient and Noise Levels with Live Music) dBA (L _{eq})	Exceeds 3 dBA Change Threshold? ¹	Exceeds both County of San Diego Exterior Thresholds?	Exceedance of Threshold Due to Live Music Performance?
Winery 1		64.6	91.5			26.9			
1	Off-Site 1	52.3	54.0	550 ft.	Yes	1.7	No	No	-
2	Off-Site 2	40.1	49.2	300 ft.	No	9.1	N/A	No	-
3	Off-Site 3	52.1	62.8	200 ft.	Yes	10.7	Yes	Yes	Yes
Winery 2		60.4	79.7			19.3			
4	Off-Site 1	47.7	48.0	400 ft.	No	0.3	N/A	No	-
5	Off-Site 2	44.8	55.2	730 ft.	Yes	10.4	Yes	Yes	No
Winery 3		62.3	87.7			25.4			
6	Off-Site 1	61.2	60.5	230 ft.	Yes	--	N/A	No	-
7	Off-Site 2	66.7	63.7	700 ft.	Yes	--	N/A	No	-
8	Off-Site 3	70.8	70.9	650 ft.	Yes	0.1	No	No	-
Winery 4		61.1	74.3			13.2			
9	Off-Site 1	59.1	60.6	230 ft.	Yes	1.5	No	No	-
10	Off-Site 2	64.4	64.5	700 ft.	Yes	0.1	No	No	-

Measurement Number ID	Wineries	Ambient Noise Level dBA (L _{eq})	Noise Levels with Live Music dBA (L _{eq})	Distance from Noise Source	Noise Levels with Live Music Exceeds County of San Diego Exterior Thresholds? (>50 dBA L _{eq})	Change in Noise Level (between Ambient and Noise Levels with Live Music) dBA (L _{eq})	Exceeds 3 dBA Change Threshold? ¹	Exceeds both County of San Diego Exterior Thresholds?	Exceedance of Threshold Due to Live Music Performance?
Winery 5		59.2	72.1			12.9			
11	Off-Site 1	52.3	49.8	500 ft.	No	--	No	No	-
12	Off-Site 2	47.7	49.0	575 ft.	No	1.3	N/A	No	-
13	Off-Site 3	47.6	53.9	1,550 ft.	Yes	6.3	Yes	Yes	No
Notes: N/A = Not Applicable; existing ambient noise levels were higher than the noise levels during live music performance. Therefore, live music performance did not result in a change in the existing ambient noise levels. Or N/A if noise levels are not greater than 50 dBA. 1. A significant impact in noise would occur if any projects would expose sensitive receptors to exterior noise levels in excess of 50 decibels (dBA) during daytime (7 a.m. to 10 p.m.). If the measured ambient noise levels are greater than 50 dBA L_{eq}, an increase of 3 dBA over the pre-existing ambient noise levels would cause a significant impact.									

ORDINANCE AND ENFORCEMENT REVIEW

Michael Baker International reviewed the zoning ordinances, municipal codes, and regulations of five comparable counties to obtain a sampling of how these jurisdictions regulate amplified music at wineries. The analysis of each municipal code included both an in-depth review of the written ordinance and contacting the enforcement team for a short interview to discuss effectiveness of implementation and enforcement actions.

Based on the results from the zoning ordinance review and interviews, amendments to the Zoning Ordinance should consider defining the differences between amplified music and special events; specify enforcement strategies such as fines, revoking permits, or requiring noise monitoring systems; and include a standardized noise measurement method. Specific recommendations are provided in the Recommendations section.

Ordinance Review Methodology

The review of the zoning ordinances compared the permitting requirements, development and operational standards, and enforcement methods of the following five counties: Sonoma, Santa Barbara, Amador, Placer, and Santa Cruz. These counties were selected based on the prevalence of wineries in the jurisdiction and similarity to land uses in the County of San Diego. The review evaluated whether amplified music is allowed by right, what type of permit is required for amplified live music, the associated standards for amplified music, and violation assessment and ordinance enforcement. None of the jurisdictions regulated size or type of speaker/amp. Only one jurisdiction, Sonoma County, specified the type of instruments that could potentially be as loud as amplified music (brass instruments, horns, or drums).

In addition to the analysis, the five jurisdictions were contacted for brief interviews regarding effectiveness of their ordinances and enforcement. Interviews covered aspects including effectiveness, the cost to enforce, issues with implementation, and recommendations for best practices to include in potential ordinance revisions. The jurisdictions noted that there were no additional costs to enforce the noise ordinance or noise complaints. They did, however, typically provide light oversight and note the difficulties of responding to a noise complaint in a timely manner (often the following morning/day when the activity had ceased). They indicated that in recognition of these challenges, the use of warnings of a fine or permit revocation was considered effective. Each jurisdiction recommended that the best form of regulation for amplified music was to establish clear allowances and standards in the code or use permit.

The analysis and comparison is provided in [Table 2, *Comparison of County Ordinance and Enforcement Review*](#). The reviews and interviews resulted in common findings and recommendations regarding permitting, standards and requirements, maximum noise levels vary by county, enforcement, and alcohol licensing. These are summarized below.

Permitting

Methods of permitting amplified live music varied across the five counties. Two of the five counties—Placer and Santa Barbara—allow amplified music by right, without any special or conditional use permit. While Amador County allows amplified music by right in the AG (agricultural) district, it requires a conditional use permit for such uses in the R1-A district, single-family residential agricultural use

district. The other two counties, Sonoma and Santa Cruz, require a permit. Sonoma County requires a special event zoning permit which includes a proposal statement indicating details of the event and a site plan. The application process includes placing posters in the neighborhood of the event and a 10-day appeal period for neighbors to appeal the event. Santa Cruz County requires an amplified music permit.

Based on a review of the five ordinances, it is important to have clear requirements and descriptions of permitted activities in the code or permit, including differentiating between what is a special event and what is allowed live music during typical or standard tasting room operation. This is already effectively done in the County's existing Tiered Winery Ordinance.

Standards/Requirements

For the counties that allow amplified music by right, their zoning ordinances include a number of related standards including decibel level requirements, setbacks, and site plan submittals reviewed for compliance with setback requirements. Minimum setback distances are required from the property line and vary between 550 and 1,600 feet depending on jurisdiction, if adjacent to single-family residential, which Community Plan Area the property is located in, and type of instruments. In Amador County, the only requirement is that amplified music is permitted until 10:00 p.m.

Maximum Noise Levels Vary

Two of the five counties do not have a noise ordinance in their municipal codes. Santa Barbara County and Santa Cruz County both have maximum limits of 60 dBA at the property line for nighttime violations but vary during the daytime 65 dBA for Santa Barbara and 75 dBA for Santa Cruz. In Placer County the maximum decibel limit for daytime noise is 70 dBA and at nighttime the maximum noise decibel level is 65 dBA. Note that these maximum noise levels are 20 dBA higher than the County of San Diego limits of 50 dBA during the daytime and 45 dBA during the nighttime.

Opportunities to strengthen the County of San Diego Zoning Ordinance include amendments to specify hours of operation for outdoor amplified music, establish maximum performance sound levels at the source, and identify minimum setbacks or separation requirements for various sound levels based on minimum sound attenuation with distance from the source. The regulations should make a clear distinction between amplified music as an ancillary and accessory use to normal winery operations and special events using definitions and thresholds such as number of people, hours and duration, and number and frequency of special events allowed.

Complaint and Enforcement Process

Enforcement in all five jurisdictions is complaint-driven, so all respond retroactively to noise complaints. Sonoma County, Santa Barbara County, and Amador County do not require a sound level meter to administer a violation, law enforcement can make the determination whether a complaint is valid and recorded based on sufficient evidence. However, Santa Barbara County provides a sound measurement methodology and what type of sound equipment is required to take measurements. In Sonoma County, the amplified music must be live to receive a complaint; the music cannot be recorded or played from a CD or streaming device to be a valid complaint/violation.

The typical process for enforcement of the noise ordinance begins with a complaint which triggers an inspection. This is only effective if the noise is still occurring when the enforcement agency arrives at the property. Strategies for enforcement vary by county based on their resource allotment (i.e. number of

code enforcement staff, if they have a sound measuring device, ability for law enforcement to respond quickly) and general approach towards compliance (i.e. evidence/observation based or measurement based).

Three of the five counties provide methods on how to measure noise to assess a complaint. Methods included standards regarding the type of instrument used to measure noise levels (i.e. ANSI Standard SL4-1971 for Type 1 or Type 2 sound level meters). Thus, Zoning Ordinance revisions should include a method for measuring sound for violations of the ordinance. In Santa Cruz County, the noise measurement is required to be taken at the point on the property where the noise level is the highest. Santa Barbara County and Placer County describe the type of sound measurement equipment required, and it must meet the ANSI Type 1 or Type 2 standard. Placer County describes the ideal placement of the sound level meter when taking measurements (3–5 feet above the ground and away from reflective surfaces).

Four of the five counties use fines as an enforcement strategy. Fines range from \$100 to \$1,000 depending on number of consecutive violations, and are typically cumulative in cost. Additionally, three jurisdictions set a time limit of one year if a repeat citation/violation has been issued to the same property resulting in successive cumulative fines as the penalty. If the property goes a year without a repeat violation the time is reset. In Sonoma County, the multiplier factor used to determine a fine differs based on the use. Wineries are considered commercial and therefore a violation charge for a winery is a multiplier of 10 times the cost of the use permit. In Amador County, noise violations are the only violations with monetary fines in the code and increase with repeat violations if they occur within the same 12 month period.

Enforcement strategies such as incremental fines and the ability to revoke or amend a use permit are effective penalties for violations of noise ordinances and use permits. These strategies are only appropriate methods if and after a violation has been determined by the enforcement agency, if the violation is not confirmed there are no appropriate ways to enforce a penalty. Courtesy warnings prior to a formal citation have proven to be effective in limiting the amount of county resources needed to monitor and enforce.

Alcohol Beverage Control (ABC) Licensing

Most of the counties did not note any issues or specificities regarding ABC Licensing. Amador County is able to see who applies for an ABC license and checks with the zoning to ensure it is allowed as a use. If the use is not allowed, the applicant is denied a permit and must apply for a different permit.

Table 2
Comparison of County Ordinance and Enforcement Review

Agency / Municipal Code Section	Amplified Music Allowed by Right?	Type of Permit Required if Not Allowed By Right	Distinction Between Special Events and Live Amplified Music?	Amplified Music Standards / Requirements	Maximum Noise Limits	Violation Assessment / Methodology	Enforcement Strategy	Enforcement Details
Sonoma County 26-18-260	No	Special Event Zoning Permit	Winery events: Agricultural Promotional Events or Industry-Wide Events. Must be consistent with the hours of operation, maximum number of event days, maximum number of guests allowed, building occupancy limits, and other requirements identified in use permit.	Outdoor areas involving groups of people or nonamplified music (i.e., acoustic): 625 ft. Outdoor areas involving amplified music, or loud instruments such as brass instruments, horns, or drums: 1,600 ft.	N/A	Has to be live amplified music. Code enforcement receives report from law enforcement for violation determination. Do not have/use a decibel meter to measure noise.	Warning by law enforcement. Multiplier violation charge. • Wineries: 10 times the cost of the use permit.	
Santa Barbara County 35.42.280	Yes	NA	Identified as a Special Event under Wine Ordinance. Minimum 20 acres; county may permit event on smaller site in review.	Amplified music shall not exceed 65 dBA at the exterior boundary of the winery premises. Depending on Comprehensive Plan Area, amplified music is allowed from 10 a.m. to 8 p.m. or from 10 a.m. to 11 p.m. or with a director determination.	Sunday, Monday, Tuesday, Wednesday, or Thursday between 10:00 p.m. and 7:00 a.m. or after 12:00 a.m. on Friday or Saturday, between 12:00 a.m. and 7:00 a.m. Sound must be discernable at a distance of 100 ft from the property	Sound measured using an instrument that meets ANSI's Standard S1.4-1971 for Type 1 or Type 2 sound level meters or an equivalent device. Enforcement of a violation does not require the use of a sound level meter.	First violation up to \$100 fine. \$200 fine for second violation of the same ordinance within one year. \$500 fine for each additional violation of the same ordinance within one year.	

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				1,000 foot setback from residential one-family zone.	line of the property which it is broadcast or at a level greater than 60 dBA at the edge of the property line.			
Amador County 19.24.036	Yes – allowed as an incidental use in AG district only	Conditional use permit required for R1-A district.	Event uses dependent on setback distance and preferred road access. The greater the setback distance and access via a preferred road, the more events allowed.	Allowed until 10 p.m.	N/A	Prima facie violation process. Sufficient evidence required: credible witness statements, video or audio recordings.	First citation within a 12-month period: warning. Second citation within a 12-month period: \$200 fine. Third citation within a 12-month period: \$500 fine. Any successive citation within a 12-month period: \$1,000 fine.	No additional cost. Administrative warning is effective; No repeat complaints resulting in a citation have been documented after the County has issued an administrative warning.
Placer County 17.56.330	Yes – allowed with use permit but must prove compliance with setbacks prior to any event with amplified music	NA	"Special event" is an event of greater than 50 people at one time. Number of events allowed per year and max attendees dependent on parcel size and permit.	Have to submit a site plan for the proposed outdoor location of the event and the distance to the nearest residential receptor property line. If the distance between the proposed sound	Daytime (7 a.m. to 10 p.m.) 55 hourly Leq, dB 70 maximum level, (Lmax) dB Nighttime (10 p.m. to 7 a.m.) 45 hourly Leq, dB 65 maximum level, (Lmax) dB	Measured at the property line or at any location within the property of the affected sensitive receptor at the discretion of enforcement officer. Sound level meter shall be 3-5 feet above the ground.	Warning of a citation with time limit to correct violation. First citation fine: \$500 Second citation fine: \$750	A second of subsequent violations requires a special security assignment over and above the services normally provided and shall be charged against the responsible party. The county may collect any such

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			4.6-10 ac = 6 events, attendees determined by permit 10-20 ac = 6 events, 100 attendees 20+ ac = 12 events, 200 attendees	source and nearest sensitive receptor property line is greater than distances below, then additional acoustical analysis is not required. If the distance between the proposed sound source location and nearest sensitive receptor property line is less than distance below, a site-specific noise analysis is required compliant with noise ordinance. Auburn/Bowman Community Plan 20+ ac = 1,225 ft setback 10-20 ac = 925 ft setback Other Community Plan Areas 20+ ac = 750 ft setback 10-20 ac = 550 ft setback	Reduced by 5 dB for simple tone noises, including music. The sound level standard shall not be lower than the ambient sound level + 5 dB.		\$1,000 for the third and any subsequent citations. Fine amounts are cumulative when multiple are issued.	costs for enforcement and costs of collection by use of all available legal means.

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				If the distance between the proposed sound source and nearest sensitive receptor property line is greater than setback requirements, no additional acoustical analysis needed. If the distance is less than the requirement, a noise analysis shall be required.				
Santa Cruz County 13.10.637	No	Amplified Music Permit	Outdoor marketing events dependent on number of guests and size of winery, zone district and use permit. Small events: 25 – 50 people Large events: 50+ people	Indoors: amplified music and acoustic music are permitted during indoor tastings and events. Outdoors: Acoustic music is permitted during outdoor events. Amplified outdoor music considered with an administrative permit, where appropriate considering specific site conditions	Day and evening hours: Sound must be discernable at a distance of 150 ft from the property line of the property which it is broadcast or at a level greater than 75 dBA at the edge of the property line. Night hours: Any noise between the hours of 10 p.m. and 8 a.m. and within 100 ft of any building used for sleeping; and	Conducted at the position or positions along the property line of the receiving land use closest to the noise source or where the noise level is highest.	A violation related to noise generation that is not allowed by a permit are grounds for the county to review, amend, or revoke the permit. Warning by law enforcement. A citation issued if after warning the violator resumes making noise within three months of the warning.	

Agency / Municipal Code Section	Amplified Music Allowed by Right?	Type of Permit Required if Not Allowed By Right	Distinction Between Special Events and Live Amplified Music?	Amplified Music Standards / Requirements	Maximum Noise Limits	Violation Assessment / Methodology	Enforcement Strategy	Enforcement Details
				including proximity to noise-sensitive uses. The applicant may be required to submit an acoustic study and other documentation demonstrating that noise levels will be in accordance with the General Plan Noise Element and Noise Planning Ordinance.	discernable at a distance of 100 ft from the property line of the property which it is broadcast or at a level greater than 60 dBA at the edge of the property line.		Subsequent offense within 48 hours after receiving the same citation, is guilty of a misdemeanor.	

RECOMMENDATIONS FOR ZONING ORDINANCE IMPLEMENTATION

The following recommendations are provided for implementation in a Zoning Ordinance amendment so that wineries may comply with noise standards to allow live music performances by right in the County of San Diego. The ordinance amendments should emphasize that controlling the noise output level is the best and most direct method of ensuring compliance with the noise ordinance. If wineries and musicians control the noise levels appropriately, then fines, penalties, and strict enforcement measures will not need to be used for enforcement. The ordinance should provide standards and guidelines to help limit volumes so property owners can have a clear understanding of how to comply.

Overall, the recommended approach is to amend the zoning ordinance to provide clear objective standards that facilitate and improve compliance with the County Noise Control and Abatement Ordinance, avoid and minimize complaints and violations, and also reduce the demand and costs of enforcement actions.

Noise Standards: Hours of Operation

According to the County of San Diego Municipal Code Chapter 4, Section 36.404, *General Sound Level Limits*, a significant impact in noise would occur if any projects expose sensitive receptors to exterior noise levels in excess of 50 dBA during daytime (7 a.m. to 10 p.m.) and 45 dBA during nighttime (10 p.m. to 7 a.m.) or to an increase of 3 dBA over the preexisting ambient noise levels. Thus, all events and cleanup activities should occur during daytime hours (between 7 a.m. and 10 p.m.).

The ordinance should make a clear distinction between amplified music and special events, using definitions and thresholds such as number of people and number of events allowed. The ordinance should ensure that live music is only allowed during the standard hours of operation of the boutique wineries. Currently, tasting and retail areas at a boutique winery may operate seven days per week, from 10:00 a.m. to legal sunset (until 6 p.m. from November 1 to March 1). Limiting live music to hours of operation will ensure that music is not allowed during nighttime hours.

Setback Distances

The ordinance should establish setback distances from noise sources to sensitive receptors based on the natural minimum attenuation of sound levels with increased distance from the source. Since each winery would have site-specific considerations for speaker placement, property lines, and sensitive receptors, a general and conservative approach is used to calculate a recommended setback for different types of performances and noise levels. Maintaining adequate setback distances is recommended to ensure compliance with the noise standards. For the sake of the Zoning Ordinance amendments, a minimum setback distance can be determined based on the typical decibel level of music performances and case study results from field measurements.

Likewise, maximum performance levels can be set based upon distance between the nearest sensitive receptor and the location of the live outdoor music. This method allows a winery operator to work with the performers to ensure they do not exceed the maximum average sound level that is allowable at a particular location based on the distance to the nearest sensitive receptor. The winery can use easy to use measurements during set up and during performances to ensure and document compliance. This is the best way to ensure compliance, avoid and minimize complaints, and streamline and reduce costs of complaints and enforcement. The same tools and methods can be used to document violations to assist in compliance and enforcement.

As discussed above, noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance. To determine the setback distance for the Zoning Ordinance, we recommend using the minimum 6 dBA was used for each doubling of distance. The assumed (or maximum) decibel level set is 10 feet away from the noise source, as was used in the measurements in the case study.

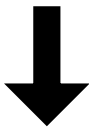
Table 3, *Required Setback Distances*, provides music volume levels from quieter to loudest, a typical instrumentation that would create that noise level, the decibel level at 10 feet from the source, and the proposed required setback from the sensitive receptor property line for that music performance. The distance from the property line is calculated using a minimum decrease of 6 dBA for the doubling of distance from 10 feet from the noise source. The measured decibel levels from the live music performances range from 72.1 to 91.5 dBA. This is a typical range of live music volumes as documented in the case study and in another similar study completed in Sonoma County.² For the purposes of Zoning Ordinance amendments, a maximum decibel level of 92 dBA is recommended. This would have the largest setback requirement of 1,400 feet to ensure attenuation with distance alone to less than the 50 dBA at the property line.

Based on the type of performance and decibel level of the music, different setbacks can be enforced. Music type and instrumentation in the table are provided in the table as a helpful guide and are not intended to be strict requirements. Understanding what type of music might be louder can help property owners ensure their setback is appropriate if for their live music performance. Typically, a quieter type of music would be a performer with an amplified acoustic guitar, with no horns, electric bass, or drums. At a level of 75 dBA, this type of music would require a 200-foot setback from the nearest sensitive receptor or property line to meet the 50 dBA limit.

The setback levels ensure that at the decibel levels provided, sound would not expose sensitive receptors to exterior noise levels in excess of 50 dBA during daytime (7 a.m. to 10 p.m.) and thus would not cause an impact as defined by County of San Diego Guidelines.

² Bollard Acoustical Consultants, INC., *Recommendations for General Noise Standards for Winery Events, Sonoma County*, November 28, 2017.

Table 3
Required Setback Distances

Music Volume Level	Illustrative Music Type (Typical Instrumentation) ¹	Noise Level 10 ft from source (dBA) ²	Required Setback from Property Line/Sensitive Receptor (Feet)
Quieter  Loudest (maximum allowable dBA)	Single or Duo Amplified Musician (typically no full drum set, no electric bass)	75	200
	Folk/Country: Multiple Musicians (typically include a drum set, a guitar, a bass guitar, a tambourine, a washboard, a violin and a mandolin)	80	350
	Classical Rock: Multiple Musicians (typically include a guitar, a drum set, a cello, and an electronic keyboard)	88	850
	Rock Band: Multiple Musicians (typically include a guitar, a drum set, an electric guitar, and a bass guitar)	92	1,400
1. Music type and musical instruments are based on the case studies. 2. Noise levels are rounded up to the nearest whole number.			

Project-Specific Noise Studies

The Zoning Ordinance should use setback distances to ensure that noise impacts from the live music performances will not exceed established noise limits. If the actual setback distances are greater than those identified in Table 3 for the proposed type of sound source(s), then no additional acoustical analysis would be required. However, the setbacks may not be achievable for all properties with boutique wineries. Setbacks should be used as a conservative baseline for all wineries; however, based on site-specific features such as set up and monitoring of performance sound levels, speaker placement and topography, individual sites may be able to comply with the noise ordinance with a lesser setbacks.

Should a boutique winery that cannot meet the setback requirements want to have live music during regular tasting hours, an option for a site-specific noise study should be included in the Zoning Ordinance. A site-specific noise study should be required if actual setback distances are less than as recommended above. These studies should consider shielding by barriers or structures, as well as evaluations of natural and artificial noise attenuation features. Project-specific site plans should consider parcel size, road access, road classification/ownership, adjacent existing/future land use, and type of music when developing setback distances for amplified music at wineries. Additional methods and options for reducing noise output include locating performances indoors, orienting speakers away from sensitive receptors, using multiple speakers with lower output, and controlling speaker volumes. These are described below.

Additional Mitigation Options

The Zoning Ordinance could provide the following set of additional mitigation options should setback distances not be achievable.

1. *Indoor Events:* Use indoor venues for amplified live music.

2. *Speaker Orientation*: Position speakers facing away from the nearest sensitive receptor line-of-sight or as far away as possible from the nearest sensitive receptors.
3. *Speaker Management*: Use multiple speakers at a lower volume. Control speaker volumes.
4. *Barriers and Vegetation*: Utilize existing walls or structures to shield noise. Ensure barriers block the line-of-sight between noise sources and receptors.

Violations and Enforcement

The Zoning Ordinance should provide details regarding handling complaints, violations, and enforcement of the ordinance. The following best practices should be considered.

- Accept video accompanied by time-stamped and of a minimum duration (e.g. five minutes) recording with a noise measurement device as evidence of or against a violation absent formal measurement by an enforcement officer at the time of the incident.
- Establish incrementally increasing fines and the revocation of the ability to have amplified live music for properties with a certain number of complaints. Include a courtesy warning prior to a formal citation. For those properties who have had their amplified live music rights revoked, include a process for the properties to earn back those rights after a certain period of time, proof of compliance, and/or payment of a fee.
- Consider implementing technology like a noise-monitoring system for properties that receive multiple violations. Companies like NoiseNet (www.noisenet.com) can install monitoring systems and provide noise data that can support or invalidate complaints regarding amplified music, such as decibel levels, type of noise, and direction of noise.
- Provide specific methodology on how noise is measured. Since the County already has an approved methodology for sound measurement, a new one does not need to be created. The ordinance can refer to San Diego County Code of Regulatory Ordinance, Chapter 4, Section 36.403, *Sound Level Measurement* for this process.