SAN LUIS OBISPO COUNTY

DEPARTMENT OF PLANNING AND BUILDING

Promoting the Wise Use of Land – Helping to Build Great Communities

Date: April 14, 2015

To: Planning Department Hearing Officer

From: Holly Phipps, Project Manager

Subject: Willow Creek Minor Use Permit / DRC2013-00028 / Noise Study dated March 25, 2015 Submitted / Well Report Submitted

On April 2, 2015, the agent submitted a supplemental noise study and well report for the above project. There were some concerns that the first Noise study completed did not adequately address noise issues at the northern property line (see attached Acoustical Analysis by David Dubbink dated March 25, 2015). The report stated:

> *Because of the distance from the events area to the northern and eastern property lines, there is no likelihood that the noise limits will be exceeded. The most significant noise management concerns are at the southern property (David Dubbink, March 25, 2015).*

Additionally, there were some concerns that the water well on the property could not serve the proposed use (see attached well report by Miller Drilling Co. dated December 10, 2014). The well reported concluded that the well produced 104 GPM for 4 hours.

If you have any questions regarding this matter, please contact Holly Phipps at (805) 781-1162.

David Dubbink Associates
864 Osos Street, Suite D
Phone (805) 541-5325, Fax (805) 541-5326
dubbink@noisemanagement.com

March 25, 2015

Ms. Mandi Pickens
Principal Planner
Kirk Consulting
8830 Morro Rd
Atascadero, CA 93422

Topic: Acoustical Analysis for the Pasolivo Events/Olive Oil Production Expansion

Dear Ms Pickens:

On July 5, 2013, we completed an acoustical analysis related to a temporary events permit for the Pasolivo Events/Olive Oil Production Expansion on Vineyard Drive. The analysis concluded that, with the recommended guidelines, sound from event activities will not exceed any of the county's standards. The report included the statement saying that:

> *Because of the distance from the events area to the northern and eastern property lines, there is no likelihood that noise limits will be exceeded. The most significant noise management concerns are at the southern property boundary.*

While the statement was supported by a study of levels at the northern and eastern property boundaries that analysis was not explicitly documented in the report. This letter provides the computations on which the conclusion was based.

This letter is intended to serve as a stand alone report and therefore includes some sections that are redundant with the earlier report. This text does not include the detailed information that report provided on impacts along the southern property line and focuses exclusively on evaluation of impacts from events as they might be experienced at the northern and eastern property lines.

The Project

The larger project involves construction of a new tasting room and additional olive processing facilities. This report addresses only the components of the project that involve the sponsorship of "events". The central focal point for such activities is a barn style building that will replace an existing barn. It may also be that in the future, events will also be held in the vicinity of the new tasting room.

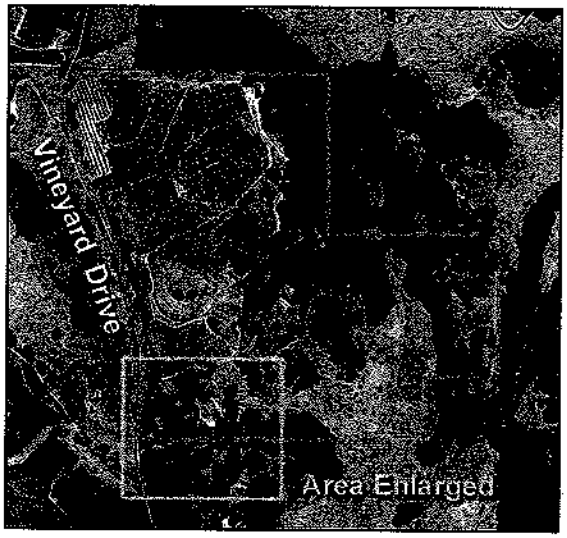


Figure 1: Property Outline

The area outlined in blue in Figure 1, delineates the Pasolivo property. Figure 2 shows an enlargement of the portion of the property proposed for events. Future structures are shown in tan. The events barn is at the location of a present barn but is oriented on a different alignment. Events will be held within the barn and may extend to outdoor terraces at either side.

Events are not presently proposed at the location of the new tasting room but this report includes a consideration of noise management concerns should this be used for events in the future.

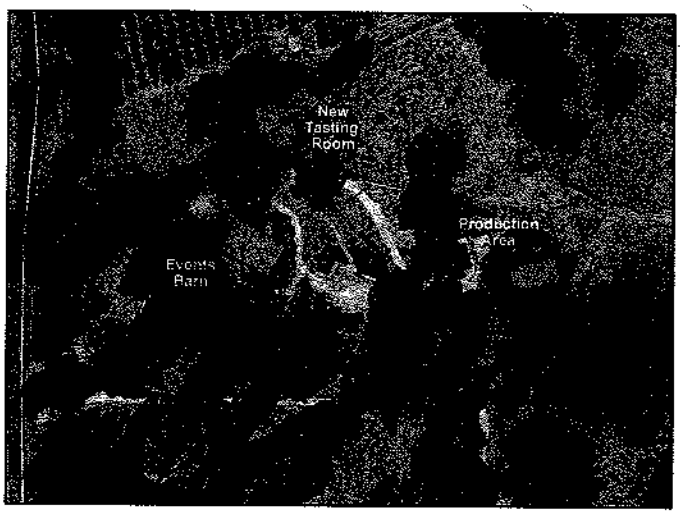


Figure 2: Tasting Room and Event Barn

The Acoustic Setting

The old barn, tasting room and production facilities sit in a small valley at the side of Vineyard Drive. The low lying areas are dotted with large oak trees as are the north facing sides of the surrounding hills. Scant traffic on Vineyard Drive is the only regular noise source. The buildings are set back from the road which forms the site's west property boundary. The events area is located in the southwest corner of the Pasolivo property. As noted, the 2013 report concluded that with the distance from the events area to the northern and eastern property lines, there is no likelihood that noise limits will be exceeded. The most significant noise management concerns are at the southern property boundary.

Sound level readings were taken at the project site on July 3, 2013, starting at 3 PM in the vicinity of the proposed events barn. There was a light breeze from the south but not at levels that would significantly affect measurements. A Brüel & Kjær Precision Integrating Sound Level Meter, Type 2230 was used in making the measurements. The meter was calibrated before and after the survey using a B&K Acoustic Calibrator Model 4231. The readings were determined to be accurate.

The ambient noise levels at the site were around 33 decibels with the level rising by a few decibels when a vehicle drove by on Vineyard Drive. This is a low ambient sound level, typical for rural areas.

The County's Regulatory Structure

"Temporary Special Events" are governed by Section 22.10.210 of the County's Land Use Ordinance. The section does not include explicit standards limiting the noise

produced during events that are not winery sponsored events. This means that noise from non winery events is governed by the County's general standards for noise production.

The County's general standards limiting noise that can be produced by projects are expressed in both an hourly energy average (Leq) and a not-to-be-exceeded peak level (Lmax)[1]. The daytime and nighttime standards for exterior noise are shown in Table 1. The first numeric value is the standard and the second, to the right of the slash mark, is the level permitted for sounds consisting primarily of speech or music. Sound levels are to be measured at the property line of noise impacted neighbors.

Table 1: Exterior Noise Standards

	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Maximum level, decibels	70/65	65/60
Hourly Leq, decibels	50/45	45/40

The "Performance"

The site plan shown in Figure 3 shows the position of the future events barn and the new tasting room. The letters show the possible event settings that are discussed in this report.

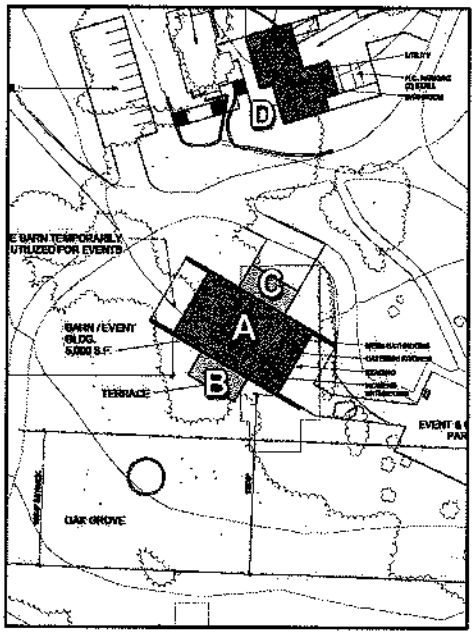


Figure 3: Possible Event Locations

To determine if sound from activities at the events sites would meet County standards, a test was conducted where a "performance" was simulated using recorded sounds. A high performance speaker was mounted on a stand at a location approximating the location of the terrace that will be constructed on the southwest side of the new barn structure (location "B"). Initially the speaker was oriented to the west and measurements were made at 50 foot and 135 foot distances. Then the speaker was oriented toward the south, toward the closest neighboring property which is 135 feet away. Apart from the trunks of some oak trees, there is nothing blocking the line of site toward the south property line. The test sound was a loop of a performance by Smashing Pumpkins with a musical style the leader describes as "Goth Rock" It has plenty of bass as well as strident electronic tones.

[1] Appendix A provides a reference to acoustic terminology.

Several tests were made. In order to evaluate distance attenuation at the location, sounds were evaluated at 50 and 135 feet from the speaker source. At 50 feet the level was in the range of 73 to 75 decibels measured by Leq, the acoustic energy average. At this distance, the peak levels were at 78 decibels. At 135 feet, which corresponds to the position of the closest property, the averages were around 57 Leq with peaks at 60 decibels Lmax. This was the case for both directional orientations.

Analysis

Any analysis of impact first requires an estimation of the sound levels associated with the individual events. We have made measurements of noise levels produced during outdoor events held in San Luis Obispo County and will use these numbers in evaluating proposed activities. Table 2 shows values for two types of events involving amplified music. The values in the table have been normalized to a 50 foot source-to-listener distance.

Table 2: Sound from Outdoor Events

		Lmax	Leq
Event 1	Amplified Music DJ outdoors	74-80	73-76
Event 2	Amplified Live Band (inside tent)	76	64-67

At the DJ event with amplified music, the sound level was in the 73-78 decibel range at 50 feet. This is similar to the level set in the test "performance". With sound amplified to such a level it is necessary for a person within 50 feet of the source to raise their voice to be understood by someone next to them. While sound levels set to the level used in the test performance might be the norm, some DJs and musical groups may elect to exceed these amplification levels.

The general rule is that sound drops by 6 decibels with a doubling of distance. The measured attenuation during the test "performance" was greater than this; around 12 decibels at the southern property line. In this study we will assume the more conservative 6 decibel, distance doubling effect.

The closest potential event venue with regard to the northern and eastern property lines would be activities proximate the tasting room (Site D on Figure 3). The distance to the northern property line is 2,225 feet and the distance to the eastern boundary is 1,750 feet. Table 3 shows the Lmax and Leq values for amplified music at the maximum assumed performance level attenuated to these distances.

Table 3: Sound Levels at North and East Property Lines

	Distance	Lmax	Leq
Northern property line	2,225 ft.	47	43
Eastern property line	1,750 ft.	49	45

Sound levels at the property line do not exceed the County's daytime standard of 65 Lmax; the maximum level for amplified music. The Leq value at the north property line is less than the 45 decibel standard and is not exceeded at the eastern property line.

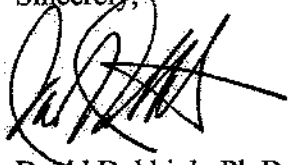
Moreover, the above calculation assumes a direct line of exposure from the source to the receiver. There is a substantial hill north of the event venue would provide additional blocking of sound reaching the northern property line. Drawing a direct line between the elevation of the tasting room and the elevation of the north property line indicates the intervening ridge of the hill provides the sound blocking equivalent of a 100 foot tall noise barrier. A blockage of this magnitude would reduce sound levels in this direction by an additional 20 decibels. The topography in the area is irregular, so the effect would vary but it is evident that sound levels received at the northern property line would be well below the County's standards. The same hill provides screening for much of the eastern property line with the only direct exposure at the extreme south east corner of the property boundary.

Conclusion

The earlier acoustic study recommended that there be a condition that outdoor amplified music cannot exceed Lmax levels of 78 decibels, measured fifty feet from the source. This insures that events do not exceed the County's standards for either Lmax or Leq at the closest neighboring property line. It was also recommended that this condition be made part of any rental agreement for groups making use of the event site. The Pasolivo events manager should have a simple sound level meter to verify the standards.

The recommended condition fixes sound levels at three decibels below the maximum event levels assumed in the preceding analysis. It is evident that noise levels experienced at the property's northern and eastern boundaries will not exceed the County's standards.

Sincerely,



David Dubbink, Ph.D., AICP

Miller Drilling Co.
329 N. Main St.
Templeton, CA 93465
(805) 434-1888

Miller Drilling Co.

Contractors License No. 324634

PUMP TEST REPORT

Job# 19514

WELL OWNER: PASO OLIVIO
BILLING ADDRESS: 8530 VINEYARD DRIVE
PASO ROBLES, CA
93446

Pump Set: 262' Well #: 8"
Pump Size: 15 HP Well Depth: 280'
Testing Method: EXISTING PUMP
Perf Rec: 0-120 BLANK 120-280 SCREEN
APN:
LOCATION: 8530 VINEYARD DR

Standing Level Before Test: 112.60

TESTING

TIME	PUMPING LEVEL	WATER CONDITION	WATER/BOWLS	GPM
9:25	START	CLOUDY		127
9:40	177.9	CLEARING		124
9:50	STOP	SET FLOW	105 GPM	
		SWL 120.1		
10:00	RESTART		6707068	105
10:05	155.8	CLEAR		104
10:10	161.6	CLEAR		104
10:20	165	CLEAR		104
10:30	165.4	CLEAR		104
		SAMPLES TAKEN		
1:30	174.8	CLEAR		104
1:46	174.9	CLEAR		104
2:00	175.2	CLEAR	6731644	104
	RECOVERY			
5 MIN	124.2			
10 MIN	123.9			
15 MIN	123.8			
25 MIN	122.5			

Notes: 6731644 102.40 GPM AVG
6703924

STANDING LEVEL AFTER TEST: 122.5 AFTER 25 MIN
FINAL TEST RESULTS: Produced: 104 GPM for 4 hours on: 12/10/2014
Test Run By: KURT