

4.8 NOISE

Agricultural Residential Cluster Subdivision. Construction of the Agricultural Residential Cluster Subdivision would generate nuisance noise levels at existing sensitive receptors. Later phases of construction would also expose occupants of previous phases to nuisance noise. These short-term impacts are significant but mitigable. Long-term traffic generated by the Agricultural Residential Cluster Subdivision would increase noise levels at existing receptors located adjacent to roadways in the Santa Margarita Ranch vicinity. This impact is Class I, significant and unavoidable. Proposed residences on the Agricultural Residential Cluster Subdivision site would be exposed to less than significant noise levels from existing and future roadway traffic, air traffic and railroad operations due to the distances between these noise sources and the proposed residential units.

Future Development Program. Because no active application exists for the Future Development Program subsequent to the Agricultural Residential Cluster Subdivision, the assessment of noise impacts is based on a reasonable worst case scenario with regard to the location of future land uses within anticipated development areas. Buildout of the Future Development Program would result in construction-related impacts and long-term traffic generation impacts similar to those resulting from the Agricultural Residential Cluster Subdivision individually. In addition, impacts related to exposure to air traffic and private railroad operational noise would be similarly less than significant. However, due to the potential proximity of Future Development Program land uses to noise generated from area roadways and the Union Pacific Railroad line, traffic and railroad noise impacts are significant but mitigable.

4.8.1 Setting

a. Overview of Sound Measurement. Sound is technically described in terms of its loudness (amplitude) and frequency (pitch). The standard unit of measurement of the loudness intensity of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

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 similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud; a sound 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud). In general, a 3 dB change in community noise levels is noticeable, while 1-2 dB changes are generally not perceived. Noise levels typically attenuate at a rate of 6 dBA per doubling of distance from point sources such as industrial machinery. Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance.

In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. Several rating scales have been developed to account for the known effects of noise on people. Based on these effects, the observation has been made that the potential for noise to impact people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to



account for this factor. These scales include the Equivalent Noise Level (Leq), the Day Night Noise Level (Ldn) and the Community Noise Equivalent Level (CNEL).

Leq is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. Leq is the “energy” average noise level during the time period of the sample. Leq can be measured for any time period, but is typically measured for 15 minutes, 1 hour, or 24 hours.

Ldn is a 24-hour, time-weighted average noise level. Time-weighted refers to the fact that noise which occurs during certain sensitive time periods is penalized for occurring at these times. In the Ldn scale, those events that take place during the night (10 p.m. to 7 a.m.) are penalized by 10 dB. This penalty was selected to attempt to account for increased human sensitivity to noise during the quieter period of day, where sleep is the most probable activity.

CNEL is similar to the Ldn scale except that it includes an additional 5 dBA penalty for events that occur during the evening (7 p.m. to 10 p.m.) time period. Thus, both the Ldn and CNEL noise measurements represent a 24-hour average of A-weighted noise levels with Ldn providing a nighttime adjustment and CNEL providing both an evening and nighttime adjustment.

Intermittent or occasional noise such as that associated with stationary noise sources is not of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the Ldn scale. To account for intermittent noise, the Percent Noise Level (L%) scale is used. The Percent Noise Level is the level exceeded a percentage of the time during the measurement period. Noise Ordinances are typically specified in terms of the percent noise levels. Ordinances are designed to protect people from noise sources such as music, machinery and vehicular traffic on private property.

Noise has been defined as unwanted sound and is known to have several adverse effects on people. From these known effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on such known impacts of noise on people as hearing loss, speech interference, sleep interference, physiological responses and annoyance.

b. Land Use Compatibility. The State Office of Noise Control has established guidelines to provide the community with a noise environment deemed to be generally acceptable. Figure 4.8-1 depicts ranges of noise exposure levels considered compatible with various types of land uses. Where a land use is denoted as "normally acceptable" for the given noise environment, the highest noise level in that range should be considered the maximum desirable for conventional construction that does not incorporate any special acoustic treatment. The acceptability of noise environments classified as "conditionally acceptable" or "normally unacceptable" will depend on the anticipated amount of time that will normally be spent outside the structure and the acoustic treatment to be incorporated in structural design.

With regard to noise-sensitive residential uses, the recommended exterior noise limits are 60 dBA CNEL for single family residences and 65 dBA CNEL for multi-family residences. Community noise exposure levels over 70 dB are normally not acceptable for residential, school, library, hospitals and other noise sensitive uses. The recommended maximum interior



noise level is 45 dBA CNEL, which could normally be achieved using standard construction techniques if exterior noise levels are within the levels described above.

c. Sensitive Receptors. Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Residences, hospitals, schools, guest lodging, libraries, and churches are most sensitive to noise intrusion and therefore have more stringent noise exposure targets than manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance.

The only existing sensitive receptor located on the Agricultural Residential Cluster Subdivision site is a farm support unit located near the southern boundary of the site, near the intersection of Las Pilitas Road and West Pozo Road. Existing sensitive uses located on the Ranch property include one single-family residence and three farm support quarters located on the Ranch headquarters parcel, and four private cabins located in the hillsides in the southern portion of the property. Off-site, residences, the school, library and park in the community of Santa Margarita, as well as residences in Margarita Farms and scattered rural residences located in the vicinity of the Ranch property are sensitive receptors.

d. Existing Conditions. Major sources of noise in the County identified in the General Plan Noise Element include: roadways, airports, railroads, and stationary sources such as agricultural operations, construction, and commercial and industrial facilities. The existing sources of noise in the vicinity of the Ranch include noise generated from vehicle traffic along area roadways, the operation of the private air strip on the Ranch property, the Union Pacific Railroad (UPRR), and adjacent agriculture and mining operations.

Rincon Consultants, Inc. staff monitored average noise levels at 13 locations on the Ranch property in April 2006 during the peak traffic hours of 7:30-8:30 am and 5:30-6:30 pm on weekdays. Noise levels were taken over 20 minute sample periods. Noise metering was performed using the Larson-Davis Model 720 Type 2 Integrating Sound Level Meter. The noise measurement results are presented in Table 4.8-1, in terms of the equivalent noise levels (Leq), and maximum noise levels (Lmax).

Table 4.8-1. Existing Noise Measurements

Site	Location	Noise Sources	Distance Between Noise Source and Noise Meter	Leq	Lmax
1	Northeastern portion of the Agricultural Residential Cluster Subdivision, near proposed Lot 6	Traffic on SR 58 and West Pozo Road.	450 Feet	46.6	61.3
2	West of Site 1, near proposed Lot 40	Traffic on SR 58 and West Pozo Road.	1,930 Feet	44.1	52.0
3	Southern portion of the Agricultural Residential Cluster Subdivision, near proposed Lot 87	Traffic on SR 58 and West Pozo Road.	2,500 Feet	38.7	55.1
4	South of the Agricultural Residential Cluster Subdivision lots, on a Future Development Program potential	Traffic on West Pozo Road	50 Feet	57.0	76.0



Table 4.8-1. Existing Noise Measurements

Site	Location	Noise Sources	Distance Between Noise Source and Noise Meter	Leq	Lmax
	winery/Ranch headquarters location				
5	North of Highway 58, northeast of West Pozo Road, on a Future Development Program potential Ranch headquarters location	Traffic on SR 58	50 Feet	60.8	80.6
6	East of the community of Santa Margarita, near the Future Development Program land use location that includes a 5-acre park and swimming pool, three worship centers, and work force housing	Traffic on SR 58.	50 Feet	59.3	75.4
7	North of the community of Santa Margarita	Traffic on El Camino Real	50 Feet	66.3	82.5
8	North of the community of Santa Margarita	Traffic on El Camino Real and an industrial oil tank storage facility.	275 Feet from Road, 50 Feet from Industrial	51.8	58.8
9	South of the community of Santa Margarita, south of the UPRR tracks	Passing train (including whistle)	50 Feet	85.5	110.5
10	Near Highway 101, south of SR 58, on the Future Development Program potential livestock sales yard location	Traffic on Highway 101	50 Feet	75.1	86.7
11	Northern portion of the Ranch property, adjacent to Highway 101	Traffic on Highway 101	50 Feet	73.6	90.7
12	On the existing Ranch headquarters parcel, approximately 2,680 feet east of Highway 101	Traffic on Highway 101	2,680 Feet	48.2	66.4
13	Within the community of Santa Margarita	Traffic on El Camino Real (SR 58).	50 Feet	68.0	84.2

Roadway Noise. Existing and future traffic noise levels were quantified using the California Vehicle Noise Emission Levels (Caltrans, January 1987), standard noise modeling equations derived from the Federal Highway Administration STAMINA2 noise model, and traffic volumes provided by Fehr & Peers for this EIR (refer to Appendix I for noise model results; refer to Appendix J for technical traffic calculations).

Highway 101 and State Route (SR) 58 are the primary traffic corridors near the Santa Margarita Ranch, and are consequently the major noise contributors. Highway 101 traverses the western edge of the Ranch property, while SR 58 extends eastbound from Highway 101 through the community of Santa Margarita. The existing 60 dBA CNEL contour from Highway 101 ranges from 736 to 1,624 feet from the centerline. The existing 60 dBA CNEL contour from SR 58 ranges from 103 to



151 feet from the centerline. Areas adjacent to these roads are exposed to lower noise levels than modeled where there are intervening structures, vegetation and/or topography.

The other area roadways that currently carry sufficient traffic to produce audible noise at a substantial distance include El Camino Real, Estrada Avenue, and West Pozo Road. El Camino Real is a north-south roadway connecting Santa Margarita with Atascadero. Within Santa Margarita, El Camino Real becomes SR 58 and is oriented in an east-west direction, connecting Santa Margarita with Highway 101. Estrada Avenue is a north-south, two-lane local street in Santa Margarita that extends from El Camino Real and turns into West Pozo Road to the south. West Pozo Road is a two-lane local street connecting Santa Margarita and the town of Pozo. It extends from Estrada Avenue in the northwest to Pozo in the southeast, bisecting the eastern portion of the Ranch property. The existing 60 dBA CNEL contour for El Camino Real ranges from 145 to 155 feet from centerline (see Table 4.8-2). The existing 60 dBA CNEL contour from Estrada Avenue is approximately 123 feet from centerline, and from West Pozo Road is approximately 59 feet from centerline (see Table 4.8-2).

Wilhelmina Avenue is a north-south, two-lane local street in the western portion of the community of Santa Margarita. It extends from El Camino Real in the north to I Street in the south. Wilhelmina Avenue currently carries a relatively small amount of vehicle traffic, and therefore does not produce audible noise at a substantial distance. The existing 60 dBA CNEL contour for Wilhelmina Avenue is approximately 47 feet from centerline (see Table 4.8-2).

Table 4.8-2 shows data relative to the existing roadway traffic noise for major streets and highways in the vicinity of the Ranch property, expressed as the distance to CNEL contours from centerline of the roadway.

Table 4.8-2. Existing Traffic Noise Levels

Roadway Segment	Traffic (ADT)	Distance to CNEL Contour from Centerline (feet)		
		70 dB	65 dB	60 dB
Four-Lane Highway				
Highway 101 north of SR 58	19,750	350	754	1,624
Highway 101 south of SR 58	22,060	159	342	736
Two-Lane Highway				
El Camino Real north of Estrada Avenue	4,300	28	67	145
West Pozo Road between J Street and West Driveway (SR 58)	3,000	RW	48	103
West Pozo Road southeast of SR 58	1,000	RW	RW	59
SR 58 northeast of West Pozo Road	1,900	RW	38	114
Local Roadway				
El Camino Real between Wilhelmina Avenue and Maud Avenue	5,490	35	72	155
El Camino Real between Pinal Avenue and Estrada Avenue	5,300	34	70	151
Estrada Avenue south of El Camino Real	3,900	RW	57	123
Wilhelmina Avenue between El Camino Real and I Street	740	RW	RW	47

RW: Noise contour falls within roadway right-of-way.

Source: Traffic volumes from Fehr & Peers (June 2006).

**** Actual noise levels may be lower due to intervening topography and vegetation.**

Air Strip Operations. One private air strip is located on the Ranch property, trending north-south approximately 750 feet west of the existing Ranch headquarter facilities. The air strip consists of one 3,400 foot long runway and is used approximately three times per week. Sound levels were measured during landing and take off of two aircraft at the airstrip on October 23,



2006 (45 dB.com Acoustics Consulting, 2006). The two aircraft represented a range of engine power for single-engine propeller aircraft; a Stearman biplane with a radical engine of around 250 horsepower and a Piper Cherokee with a Lycoming 180 horsepower engine. The report found that the added sound level from occasional aircraft operations at the Santa Margarita Ranch airstrip represents a small addition to noise contours, and does not exceed San Luis Obispo County Noise Ordinance standards.

Railroad Operations. The Union Pacific Railroad (UPRR) runs parallel to Highway 101, south of State Route 58, where it curves eastward to follow El Camino Real through the community of Santa Margarita. Noise Measurement Site 9 recorded noise from a passing train. The noise measurement was taken approximately 50 feet from the railroad centerline, and registered a maximum noise level (Lmax) of 110.5 dBA and an average noise level (Leq) of 85.5 dBA. According to the San Luis Obispo County Noise Element, the 60 dB CNEL (24-hour, time-weighted average) contour extends 383 to 572 feet from the centerline, depending on the distance from grade crossing (refer to Table 4.8-8).

Agricultural Operations. Agricultural operations produce noise associated with wind machines, diesel engines, aerial application aircrafts (crop dusters), bird frightening devices, tractors, and water pumps. Many of these noise sources are related to seasonal operations. Agricultural operations currently on the Ranch property include vineyards and grazing land, which are scattered throughout the Ranch property (refer to Figure 4.1-4 in Section 4.1, *Agricultural Resources*). Grazing operations are not expected to generate substantial noise levels. Noise generated from equipment and water pumps associated with the vineyards on the Ranch property can occasionally be heard at off-site receptors.

Mining Operations. The Southern Pacific Milling Company operates a sand and gravel quarry just outside of the Ranch property boundary, at the northeastern corner of the Santa Margarita Ranch, approximately two miles northeast of Santa Margarita. Noises associated with mining operations include explosive rock blasting and truck hauling. Because noises associated with rock blasting are temporary in nature, and because the mining operation is relatively remote relative to sensitive land uses in the vicinity, this is not considered a substantial source of noise in the area. However, noises associated with truck hauling affect the overall noise levels on area roadways (Table 4.8-2).

4.8.2 Impact Analysis

a. Regulatory Policies. The County of San Luis Obispo General Plan Noise Element contains goals, policies and implementation measures for the compatibility of sensitive land uses with noise. The purpose of these goals, policies and implementation measures is to reduce the various potential effects of noise on people. The Noise Element sets maximum allowable noise exposure from both transportation and stationary sources. These maximum levels are listed in Tables 4.8-3 and 4.8-4 below.



LAND USE	EXTERIOR NOISE EXPOSURE					
	LDN or CNEL, dB					
	55	60	65	70	75	80
Residential (except temp. dwellings & Res acc. uses), Pub Assembly & Entertainment (except meeting halls)	Acceptable	Acceptable	Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable
Bed and Breakfast Facilities, Hotels and Motels	Acceptable	Acceptable	Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable
Schools - Preschool to Secondary, College and University, Specialized Education and Training; Libraries and Museums, Hospitals, Nursing and Personal Care, Meeting Halls, Churches	Acceptable	Acceptable	Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable
Outdoor Sports and Recreation	Acceptable	Acceptable	Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable
Offices	Acceptable	Acceptable	Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable

This figure indicates whether mitigation is required.

INTERPRETATION

 **ACCEPTABLE**
 (no mitigation required)
 Specified land use is satisfactory.

 **CONDITIONALLY ACCEPTABLE**
 (mitigation required)
 Use should be permitted only after careful study and inclusion of mitigation measures as needed to satisfy policies of the Noise Element.

 **UNACCEPTABLE**
 (mitigation may not be feasible)
 Development is usually not feasible in accordance with the goals of the Noise Element.

Source: County of San Luis Obispo Noise Element, 1992; Figure 3-1.



Table 4.8-3. Maximum Allowable Noise Exposure: Transportation Noise Sources

Land Use	Outdoor Activity Areas ¹	Interior Spaces	
	CNEL, dBA	CNEL, dBA	Leq, dBA ²
Residences, Hotels and Motels, Hospitals, and Nursing and Personal Care	60 ³	45	--
Public Assembly and Entertainment	--	--	35
Offices	60 ³	--	45
Churches, Meeting Halls, Schools, Libraries and Museums	--	--	45
Outdoor Sports and Recreation	70	--	--

¹ Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

² As determined for a typical worst-case hour during periods of use.

³ For other than residential uses, where an outdoor activity area is not proposed, the standard shall not apply. Where it is not possible to reduce noise in outdoor activity areas to 60 dB CNEL or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Table 4.8-4. Maximum Allowable Noise Exposure: Stationary Noise Sources¹

	Daytime (7 a.m. to 10 p.m.)	Nighttime ² (10 p.m. to 7 a.m.)
Hourly Leq, dBA	50	45
Maximum Level, dBA	70	65
Maximum Level, dBA – Impulsive Noise	65	60

¹ As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.

² Applies only where the receiving land use operates or is occupied during nighttime hours.

b. Methodology and Significance Thresholds. Existing and future traffic noise levels were quantified using the California Vehicle Noise Emission Levels (Caltrans, January 1987), standard noise modeling equations derived from the Federal Highway Administration STAMINA2 noise model, and traffic volumes provided by Fehr & Peers for this EIR. Noise model data is provided in Appendix I to this EIR.

For purposes of this EIR, an impact is significant if Agricultural Residential Cluster Subdivision and/or Future Development Program implementation would expose existing and future sensitive receptors to noise levels exceeding County standards. Pursuant to the State CEQA Guidelines, potentially significant impacts would result if the Agricultural Residential Cluster Subdivision or Future Development Program would result in:

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



- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, or in the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

c. Agricultural Residential Cluster Subdivision Impacts and Mitigation Measures.

Agricultural Residential Cluster Subdivision Impact N-1 **Construction of the Agricultural Residential Cluster Subdivision would generate nuisance noise levels at the nearest sensitive receptors. Later phases of construction would also expose occupants of previous phases of subdivision development to nuisance noise levels. This is a Class II, significant but mitigable impact.**

Nearby noise-sensitive land uses, including residential neighborhoods in the community of Santa Margarita, would be exposed to temporary noise during construction of the proposed Agricultural Residential Cluster Subdivision, including construction of off-site transportation improvements. The main sources of noise would be the heavy machinery used in grading, excavation and clearing the site, and truck trips to and from the site.

The operation of heavy equipment during construction of the subdivision would result in temporary increases in noise in the immediate vicinity of the Agricultural Residential Cluster Subdivision site. However, this would be a temporary activity and would not impact sensitive receptors in the long term. The highest noise levels would generally occur during excavation and foundation development, which involve the use of such equipment as backhoes, bulldozers, shovels, and front-end loaders. In addition, construction vehicles traveling on local roadways can generate substantial noise levels that affect adjacent receptors. As depicted in Table 4.8-5, average noise levels associated with the use of heavy equipment at construction sites can range from about 65 to 88 dBA at a distance of 50 feet from the source, depending upon the types of equipment in operation and the phase of construction.

Table 4.8-5 Typical Noise Level Ranges at Construction Sites

Construction Phase	Average Noise Level at 50 Feet	
	Minimum Required Equipment On-Site	All Pertinent Equipment On-Site
Ground Clearing	83 dBA	83 dBA
Excavation	75 dBA	88 dBA
Foundations	81 dBA	81 dBA
Erection	65 dBA	81 dBA
Finishing and Cleanup	72 dBA	88 dBA

Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the U.S. Environmental Protection Agency, 1971.

The nearest sensitive receptors to the Agricultural Residential Cluster Subdivision are single family homes and Santa Margarita Elementary School within the community of Santa Margarita, located approximately 2,000 feet northwest of the Agricultural Residential Cluster Subdivision site. Assuming a 6 dB reduction for every doubling of the distance from the equipment, at 1,600 feet the noise level is estimated to be about 54 dBA CNEL, below County exterior noise standards for residential and school uses. Therefore, at 2,000 feet, the average



sound level would not exceed the County's noise standards for residential use, and is not expected to impact sensitive receptors.

However, due to the proposed phasing of the Agricultural Residential Cluster Subdivision, newly developed residences may be occupied while remaining phases are constructed. If these newly developed residences are closer than 50 feet to the construction activity, they may experience temporary construction noise levels greater than 88 dBA. Therefore, noise levels generated during all phases of construction are potentially significant, although these impacts would be temporary.

Mitigation Measures. The following mitigation measures are required:

Agricultural Residential Cluster Subdivision N-1(a)

Construction Hours. Hours of construction noise which will cross a property line shall be limited to the hours between 7 a.m. and 7 p.m. on weekdays and 8 a.m. to 5 p.m. on weekends.

Plan Requirements and Timing. Signs stating these restrictions shall be provided by the developer and posted on-site. Signs shall be placed prior to beginning of and throughout grading and construction activities. Violations may result in suspension of permits. **Monitoring.** Planning and Building staff shall spot check and respond to complaints.

Agricultural Residential Cluster Subdivision N-1(b)

Construction Noise Attenuation. For all construction activity on the Agricultural Residential Cluster Subdivision site, additional noise attenuation techniques shall be employed as needed to ensure that noise remains within levels allowed by the County of San Luis Obispo noise standards. The following measures shall be incorporated into contract specifications to reduce the impact of construction noise.

- All construction equipment shall have properly maintained sound-control devices. No equipment shall have an unmuffled exhaust.
- Contractors shall implement appropriate additional noise attenuation techniques including, but not limited to, siting the stationary construction equipment away from residential areas to the extent possible, and notifying adjacent residents in advance of construction work.

Plan Requirements and Timing. Noise attenuation techniques shall be submitted to the Planning and Building Department for review and approval. **Monitoring.** Planning and Building staff shall perform site inspections to ensure compliance.

Agricultural Residential Cluster Subdivision N-1(c)

Construction Equipment. Stationary construction equipment that generates noise that exceeds 60 dBA CNEL at the boundaries of adjacent residential properties shall be baffled. All



construction equipment powered by internal combustion engines shall be properly muffled and maintained. Unnecessary idling of internal combustion engines shall be prohibited. Whenever feasible, electrical power shall be used to run air compressors and similar power tools.

Plan Requirements and Timing. An equipment area with appropriate acoustical shielding shall be designated on building and grading plans. Equipment and shielding shall remain in the designated location throughout construction activities.

Monitoring. Planning and Building staff shall perform site inspections to ensure compliance.

Residual Impacts. Implementation of the above mitigation measure would reduce construction noise impacts to a less than significant level.

Agricultural Residential Cluster Subdivision Impact N-2 Long-term traffic generated by the Agricultural Residential Cluster Subdivision would incrementally increase noise levels at existing receptors located adjacent to roadways in the Santa Margarita Ranch vicinity. The effect of this noise on off-site sensitive receptors in the area is a Class I, *significant and unavoidable*, impact.

Implementation of the Agricultural Residential Cluster Subdivision would increase human activity and related noise in the Santa Margarita vicinity, primarily due to increased vehicular traffic. Table 4.8-6 shows the estimated noise levels along roadways in the vicinity that would experience increases in noise due to traffic generated by the Agricultural Residential Cluster Subdivision. The estimated traffic for conditions with and without the Agricultural Residential Cluster Subdivision was used to calculate these noise levels.

Table 4.8-6. Current and Projected Noise Levels along Agricultural Residential Cluster Subdivision Area Roadways

Roadway Segment	Nearest Existing Sensitive Receptor	Existing Noise Level (dBA <u>CNEL</u>) at this Distance	Existing + Agricultural Residential Cluster Subdivision	Change (dBA)	Threshold Exceeded? (60 dBA CNEL)
Four-Lane Highway					
Highway 101 north of SR 58	2,680 feet	59.0	59.0	0.0	No
Highway 101 south of SR 58	200 feet	70.7	70.8	0.1	Yes
Two-Lane Highway					
El Camino Real north of Estrada Avenue	40 feet	68.4	68.6	0.2	Yes
West Pozo Road between J Street and West Driveway (SR 58)	30 feet	65.4	66.8	1.4	Yes
West Pozo Road southeast of SR 58	1,500 feet	43.7	43.7	0.0	No
SR 58 northeast of West Pozo Road	100 feet	58.2	58.3	0.1	No
Local Roadway					
El Camino Real between Wilhelmina Avenue and Maud Avenue	30 feet	68.1	68.6	0.5	Yes



Table 4.8-6. Current and Projected Noise Levels along Agricultural Residential Cluster Subdivision Area Roadways

Roadway Segment	Nearest Existing Sensitive Receptor	Existing Noise Level (dBA CNEL) at this Distance	Existing + Agricultural Residential Cluster Subdivision	Change (dBA)	Threshold Exceeded? (60 dBA CNEL)
El Camino Real between Pinal Avenue and Estrada Avenue	30 feet	64.8	65.4	0.6	Yes
Estrada Avenue south of El Camino Real	30 feet	63.5	64.5	1.0	Yes
Wilhelmina Avenue between El Camino Real and I Street	20 feet	54.5	54.5	0.0	No

*Note: Year 2006 ambient roadway noise levels and traffic parameters assumed to determine them are described in Appendix I.
 Source: Traffic volumes from Fehr & Peers (June 2006)*

As shown in Table 4.8-6, six of the ten studied roadway segments in the Santa Margarita Ranch area would exceed the County’s threshold of 60 dBA CNEL at the nearest sensitive receptor under the existing + Agricultural Residential Cluster Subdivision conditions. Impacts are potentially significant.

Noise from Highway 101 south of SR 58 would reach 70.8 dBA CNEL at 200 feet from the centerline. Sensitive uses within this distance include one single-family residence south of SR 58. Residences in the community of Margarita Farms would experience noise levels of 68.6 dBA CNEL at approximately 40 feet from the centerline of El Camino Real north of Estrada Avenue. Noise from West Pozo Road between J Street and West Driveway (SR 58) would reach 66.8 dBA CNEL at 30 feet from the centerline, where residences in the community of Santa Margarita are located.

Noise from local roadways in the Santa Margarita area, including El Camino Real between Wilhelmina Avenue and Maud Avenue, El Camino Real between Pinal Avenue and Estrada Avenue, and Estrada Avenue south of El Camino Real including the realignment of Estrada Avenue (SR 58) near J Street, would also exceed the County’s threshold. Sensitive uses within this distance include residences in the community of Santa Margarita. Impacts are Class I, *significant and unavoidable*.

Mitigation Measures. The implementation of structural measures (e.g., sound walls, solid core doors, and/or double paned windows) would be infeasible due to physical, economic, or other constraints, and would rely upon the cooperation of off-site property owners, which cannot be assured. Therefore, no feasible measures are available that would mitigate impacts to existing sensitive receptors.

Residual Impacts. Impacts would remain Class I, *significant and unavoidable*.

Agricultural Residential Cluster Subdivision Impact N-3 **The Agricultural Residential Cluster Subdivision would not place sensitive receptors in areas exposed to nuisance noise levels. Class III, less than significant, impacts would result.**



According to San Luis Obispo County Noise Element Policy 3.3.2, new development of noise-sensitive land uses is not permitted in areas exposed to existing or projected future levels of noise from transportation noise sources which exceed 60 dB CNEL. Table 4.8-7 shows the estimated existing and projected noise levels at Agricultural Residential Cluster Subdivision lots nearest to area roadways. The estimated traffic for conditions with and without the Agricultural Residential Cluster Subdivision was used to calculate these noise levels.

Table 4.8-7. Current and Projected Noise Levels at proposed Agricultural Residential Cluster Subdivision Lots

Roadway Segment	Nearest Proposed Lot	Existing Noise Level (dBA) at this Distance	Existing + Agricultural Residential Cluster Subdivision	Change (dBA)	Threshold Exceeded? (60 dB CNEL)
West Pozo Road between J Street and West Driveway (SR 58)	400 feet (Lots 8 & 9)	54.2	55.5	1.3	No
West Pozo Road southeast of SR 58	1000 feet (Lot 1)	45.4	45.5	0.1	No

*Note: Year 2006 ambient roadway noise levels and traffic parameters assumed to determine them are described in Appendix I.
 Source: Traffic volumes from Fehr & Peers (June 2006)*

Noise levels shown in Table 4.8-7 indicate that proposed Agricultural Residential Cluster Subdivision lots located nearest area roadways would experience noise levels below the County threshold. Therefore, impacts are less than significant and no mitigation is required.

Mitigation Measures. No mitigation is required.

Residual Impacts. Impacts would be less than significant.

Agricultural Residential Cluster Subdivision Impact N-4

The Agricultural Residential Cluster Subdivision will likely be exposed to noise generated by aircraft flying overhead. Although these events could produce periodic noise levels greater than 60 dBA, the 24-hour CNEL noise levels at the proposed residential properties would not exceed the County CNEL threshold of 60 dBA. This is a Class III, less than significant impact.

A private air strip is located on the Santa Margarita Ranch, trending north-south approximately 750 feet west of the existing Ranch headquarter facilities. The air strip consists of one 3,400 foot long runway and is used approximately three times per week. The Agricultural Residential Cluster Subdivision site is located approximately 1.3 miles southeast of this facility. As discussed in Section 4.8.1(c), sound levels were measured during landing and take off of two aircraft at the airstrip (45 dB.com Acoustics Consulting, 2006). According to the report, the added sound level from occasional aircraft operations at the Santa Margarita Ranch airstrip would not exceed 60 dBA over a one-hour period. The County regulates noise over a 24 hour period [CNEL, refer to Section 4.8.1(a)]. Because of the distance to the air strip and the infrequent use by air craft, 24-hour noise levels at the Agricultural Residential Cluster Subdivision would not exceed the 60 dBA CNEL standard. Therefore, impacts are less than significant.



Refer to Section 4.9, *Public Safety*, for a discussion of potential safety impacts resulting from air strip operations.

Mitigation Measures. Because the Agricultural Residential Cluster Subdivision would not expose future residents to aircraft noise that exceeds 60 dBA CNEL, mitigation is not required.

Residual Impacts. Impacts are less than significant without mitigation.

Agricultural Residential Cluster Subdivision Impact N-5 **The Agricultural Residential Cluster Subdivision would place additional sensitive receptors in the vicinity of the Union Pacific Railroad (UPRR), exposing future residents to periodic nuisance noise levels. However, the 24-hour CNEL noise levels at the proposed residential properties would not exceed the County threshold of 60 dBA CNEL. This is a Class III, less than significant impact.**

Agricultural Residential Cluster Subdivision development would place new sensitive receptors in the vicinity of the existing UPRR railroad. According to noise measurements taken on the Ranch, the 60 dBA (Lmax) contour from the UPRR can reach up to 3.2 miles at maximum (i.e. during train whistle blowing) [refer to *Railroad Operations* discussion in Section 4.8.1(c) and Table 4.8-1]. The nearest proposed residential lots (Lots 35 and 39) would be located over 3,000 feet from the UPRR right-of-way. At this distance, the northernmost Agricultural Residential Cluster Subdivision lots would experience a maximum noise level (Lmax) of approximately 74.9 dBA from railroad operations. Although noise levels would temporarily exceed 60 dBA, the County regulates noise over a 24 hour period [CNEL, refer to Section 4.8.1(a)]. Table 4.8-8 shows data relative to the existing railroad noise in the vicinity of the Ranch property, expressed as the distance to CNEL contours from center of the track.

Table 4.8-8. Existing Railroad Noise Levels

CNEL Contour Values	Distance (Feet) from Center of Track	
	Beyond 1,000' from Grade Crossing	Within 1,000' of Grade Crossing
70 dB	82	123
65 dB	178	265
60 dB	383	572

Based on a hypothetical operational scenario consisting of 10 freight and 4 passenger trains per day.

Source: San Luis Obispo County Noise Element

Note: Contour distances were converted from Ldn to CNEL using standard noise modeling equations derived from the Federal Highway Administration STAMINA2 noise model

Three grade crossings are located in the Santa Margarita Ranch vicinity: Estrada Avenue, Encina Avenue, and Wilhelmina Avenue. Because the Agricultural Residential Cluster Subdivision would be within 1,000 feet of these crossings (linearly), noise levels exceeding 60 dBA CNEL would be experienced within approximately 572 feet of the railroad. The Agricultural Residential Cluster Subdivision would not place sensitive receptors within this contour. Therefore, impacts are less than significant.



Mitigation Measures. Because the Agricultural Residential Cluster Subdivision would not expose future residents to railroad noise that exceeds 60 dBA CNEL, mitigation is not required.

Residual Impacts. Impacts are less than significant without mitigation.

d. Future Development Program Impacts and Mitigation Measures. The Future Development Program represents potential future buildout of the Santa Margarita Ranch, including the proposed Agricultural Residential Cluster Subdivision. Refer to Section 4.8.2(b) for a discussion of noise impacts resulting from the Agricultural Residential Cluster Subdivision independently.

Future Development Program Impact N-1

Construction of the Future Development Program land uses could generate nuisance noise levels at the nearest sensitive receptors. Later phases of construction would also expose occupants of previous phases of Future Development Program implementation to nuisance noise levels. This is a Class II, *significant but mitigable* impact.

Nearby noise-sensitive land uses would be exposed to temporary noise during construction of the Future Development Program land uses and construction of off-site transportation improvements. The nearest sensitive receptors to Future Development Program land uses are the residences located in the communities of Santa Margarita and Margarita Farms, Santa Margarita Elementary School located at 22070 H Street in Santa Margarita, and scattered rural residences located in the vicinity of the Ranch property. Sensitive uses located on the Ranch property include one single-family residence and three farm support quarters located on the Ranch headquarters parcel, and four private cabins located in the hillsides in the southern portion of the Ranch. The Future Development Program envisions a residential village, guest ranch, lodge, restaurant, winery, and golf course southeast of the community of Santa Margarita. As a reasonable worst-case scenario from a noise impact perspective, any of these future uses may directly abut the community, resulting in construction near existing residential receptors. The Future Development Program also envisions a community pool, three worship centers, and work force housing east of the community. Construction of these facilities may occur as close as 50 feet from existing residences along the eastern edge of Santa Margarita and the Santa Margarita Elementary School property, located at 22070 H Street.

The Future Development Program also envisions a bed and breakfast, café, amphitheater, and winery at the existing Ranch headquarters parcel, which currently supports one single family residence and three farm support quarters. In addition, the Future Development Program envisions a winery and Ranch headquarters in the southern portion of the Santa Margarita Ranch, near an existing farm support quarters unit. Therefore, construction of these Future Development Program land uses may occur adjacent to noise-sensitive land uses.

As discussed in Section 4.8.2(b) above, noise levels typically attenuate at a rate of 6 dBA per doubling of distance from point sources such as heavy machinery. The noise from Future Development Program construction could reach up to 79 dBA 100 feet from the noise source



and 88 dBA 50 feet from the noise source when grading equipment would be in operation. This is a temporary but potentially significant impact.

Since the Future Development Program land uses would be implemented in phases over time, newly developed residences, churches, or other sensitive receptors may be occupied while subsequent Future Development Program land uses are constructed. If these newly developed sensitive receptors are located closer than 1,600 feet from the construction activity, they may experience temporary construction noise levels that exceed thresholds. This would be a potentially significant impact, although these impacts would be temporary.

Mitigation Measures. Agricultural Residential Cluster Subdivision measures N-1(a) (Construction Hours), N-1(b) (Construction Noise Attenuation), and N-1(c) (Construction Equipment) would apply to all construction of Future Development Program land uses within 1,600 feet of a sensitive receptor. No additional mitigation measures are required.

Residual Impacts. With implementation of recommended mitigation measures, construction noise impacts would be less than significant.

Future Development Program Impact N-2 **Long-term traffic generated by the Future Development Program would incrementally increase noise levels at existing receptors located adjacent to roadways in the Santa Margarita Ranch vicinity. The effect of this noise on off-site sensitive receptors in the area is a Class I, significant and unavoidable, impact.**

Implementation of the Future Development Program would increase human activity and related noise in the Santa Margarita vicinity, primarily due to increased vehicular traffic. Table 4.8-9 shows the estimated noise levels along roadways in the vicinity that would experience increases in noise due to traffic generated by the Future Development Program.

Table 4.8-9. Cumulative Noise Increases Along Area Roadways

Roadway Segment	Nearest Sensitive Receptor	Existing Noise Level (dBA) at this Distance	General Plan Buildout + Future Development Program	Change (dBA)	Threshold Exceeded? (60 dBA)
Four-Lane Highway					
Highway 101 north of SR 58	2,680 feet	59.0	60.8	1.8	Yes
Highway 101 south of SR 58	200 feet	70.7	72.9	2.2	Yes
Two-Lane Highway					
El Camino Real north of Estrada Avenue	40 feet	68.4	71.4	3.0	Yes
West Pozo Road between J Street and West Driveway (SR 58)	30 feet	65.4	69.6	4.1	Yes
West Pozo Road southeast of SR 58	1,500 feet	43.7	46.9	3.2	No
SR 58 northeast of West Pozo Road	100 feet	58.2	60.7	2.5	Yes
Local Roadway					
El Camino Real between Wilhelmina Avenue and Maud Avenue	30 feet	68.1	72.5	4.5	Yes
El Camino Real between Pinal Avenue and Estrada Avenue	30 feet	64.8	68.5	3.7	Yes



Table 4.8-9. Cumulative Noise Increases Along Area Roadways

Roadway Segment	Nearest Sensitive Receptor	Existing Noise Level (dBA) at this Distance	General Plan Buildout + Future Development Program	Change (dBA)	Threshold Exceeded? (60 dBA)
Estrada Avenue south of El Camino Real	30 feet	63.5	67.1	3.6	Yes
Wilhelmina Avenue between El Camino Real and I Street	20 feet	54.5	65.7	11.2	Yes

*Note: Year 2006 ambient roadway noise levels and traffic parameters assumed to determine them are described in Appendix I.
 Source: Traffic volumes from Fehr & Peers (June 2006)*

As shown in Table 4.8-9, nine of the ten studied roadway segments in the Santa Margarita Ranch area would exceed the County’s threshold of 60 dBA CNEL at the nearest sensitive receptor under the General Plan Buildout + Future Development Program conditions. Three of these roadways would exceed 70 dBA CNEL at the nearest sensitive receptors. Impacts are potentially significant.

Noise from Highway 101 north of SR 58 would reach 60.8 dBA CNEL at 2,680 feet from the centerline, while noise from Highway 101 south of SR 58 would reach 72.9 dBA CNEL at 200 feet from the centerline. Sensitive uses within this distance include one single-family residence and three farm support quarters located on the Ranch headquarters parcel and one single family residence south of SR 58. Residences in the community of Margarita Farms would experience noise levels of 71.4 dBA CNEL at approximately 40 feet from the centerline of El Camino Real north of Estrada Avenue. Noise from West Pozo Road between J Street and West Driveway (SR 58) would reach 69.6 dBA CNEL at 30 feet from the centerline, where residences in the community of Santa Margarita are located. In addition, a single family residence located approximately 100 feet from the centerline of SR 58 northeast of West Pozo Road would experience noise levels of 60.7 dBA CNEL.

Local roadways in the Santa Margarita area, including El Camino Real between Wilhelmina Avenue and Maud Avenue, El Camino Real between Pinal Avenue and Estrada Avenue, Estrada Avenue south of El Camino Real, and Wilhelmina Avenue between El Camino Real and I Street, would also exceed the County’s threshold. Sensitive receptors are located between 20 and 30 feet from the centerlines of these roadways, and include residences, Santa Margarita Elementary School, and Santa Margarita Community Park. It should be noted that noise levels at residences along Wilhelmina Avenue would increase by approximately 11.2 dBA, due largely to the expected use of this roadway as a primary access point to Future Development Program land uses envisioned southwest of the community of Santa Margarita (refer to Figure 2-9 in Section 2.0, *Project Description*).

Mitigation Measures. Although structural measures such as solid berms (e.g., sound walls), solid core doors, and/or double paned windows could reduce noise levels at existing receptors in the Santa Margarita Ranch vicinity, the implementation of structural measures would be infeasible due to physical, economic, or other constraints, and would rely upon the cooperation of off-site property owners, which cannot be assured. Therefore, no feasible measures are available that would mitigate impacts to existing sensitive receptors.



Residual Impacts. Impacts would remain Class I, *significant and unavoidable*.

Future Development Program Impact N-3 **The Future Development Program would place sensitive receptors in areas exposed to nuisance noise levels. This is a Class II, *significant but mitigable, impact.***

According to San Luis Obispo County Noise Element Policy 3.3.2, new development of noise-sensitive land uses is not permitted in areas exposed to existing or projected future levels of noise from transportation noise sources which exceed 60 dB CNEL. Because no active application exists for the Future Development Program other than the Agricultural Residential Cluster Subdivision, the assessment of noise impacts is based on a reasonable worst case scenario with regard to the future location of future land uses within anticipated development areas. Table 4.8-10 shows the estimated existing and projected noise levels at Future Development Program sensitive receptors.

Table 4.8-10. Current and Projected Noise Levels at Future Development Program Land Use Locations

Future Sensitive Receptors	Major Roadway Noise Source	Distance to Roadway, feet*	Existing Noise Level (dBA) at this Distance**	General Plan Buildout + Future Development Program**	Distance to 60 dBA Contour Line, feet**
Bed & Breakfast	Highway 101 north of SR 58	1,625	61.1	63.0	2,939
Residential village, guest ranch, lodge	Highway 101 south of SR 58	625	65.8	67.9	883
Work force housing, three places of worship, park	El Camino Real north of Estrada Avenue	20	71.4	74.4	173
Ranch Headquarter	West Pozo Road southeast of SR 58	20	62.4	65.6	332

Note: Year 2006 ambient roadway noise levels and traffic parameters assumed to determine them are described in Appendix I.

** Distances represent conservative estimates that apply to outdoor use areas. Structures may be located at a greater distance.*

*** Actual noise levels may be lower due to intervening topography and vegetation.*

Source: Traffic volumes from Fehr & Peers (June 2006)

Noise levels shown in Table 4.8-10 indicate that all Future Development Program sensitive land uses would experience noise levels above the County threshold of 60 dBA CNEL. These land uses are discussed in detail below.

Bed & Breakfast. The Future Development Program envisions a Bed & Breakfast, café, amphitheater, and winery located on the existing Ranch headquarter parcel, north of the community of Santa Margarita and approximately 1,625 feet east of Highway 101. The Bed & Breakfast would be considered a sensitive receptor [refer to Section 4.8.1(b)]. As shown in Table 4.8-10, the 60 dBA contour from Highway 101 north of SR 58 would extend 2,939 feet from the centerline after buildout of the Future Development Program. At a distance of 1,625 feet (as a reasonable worst case scenario), the Bed & Breakfast could experience noise levels up to 63.0 dBA.



Residential Village, Guest Ranch, and Lodge. The Future Development Program envisions a residential village, guest ranch, lodge, restaurant, winery, and golf course located southwest of the community of Santa Margarita and approximately 625 feet east of Highway 101. The residences, guest ranch, and lodge would be considered sensitive receptors [refer to Section 4.8.1(b)]. As shown in Table 4.8-10, the 60 dBA contour from Highway 101 south of SR 58 would extend 883 feet from the centerline after buildout of the Future Development Program. At a distance of 625 feet (as a reasonable worst case scenario), these sensitive uses could experience noise levels up to 67.9 dBA.

Work Force Housing, Three Places of Worship, and Park. The Future Development Program envisions a 5-acre park and community pool, three worship centers, and 50 units of work force housing located east of the community of Santa Margarita. All of these uses would be considered sensitive receptors [refer to Section 4.8.1(b)]. As shown in Table 4.8-10, the 60 dBA contour from El Camino Real north of Estrada Avenue would extend 173 feet from the centerline after buildout of the Future Development Program. At a distance of 20 feet (as a reasonable worst case scenario), these sensitive uses could experience noise levels up to 74.4 dBA.

Ranch Headquarter. The Future Development Program envisions two wineries and two ranch headquarters located south of the Agricultural Residential Cluster Subdivision and adjacent to West Pozo Road. Each ranch headquarter could include a single family residence, which is considered a sensitive receptor [refer to Section 4.8.1(b)]. As shown in Table 4.8-10, the 60 dBA contour from West Pozo Road southeast of SR 58 would extend 91 feet from the centerline after buildout of the Future Development Program. At a distance of 20 feet (as a reasonable worst case scenario), these sensitive uses could experience noise levels up to 71.3 dBA.

Conclusion. The Future Development Program would place sensitive receptors in areas exposed to existing and future nuisance noise levels. Impacts would be significant but mitigable.

Mitigation Measures. The following mitigation measures are required:

Future Development Program N-3(a)

Avoidance of Roadway Noise Nuisance. Preferred locations for Future Development Program components shall be in areas outside of projected 60 dBA noise contours. If future development is proposed in areas within the 60 dBA CNEL noise contour for area roadways, Future Development Program measure N-3(b) (Reduction of Nuisance Noise) shall apply.

Plan Requirements and Timing. Detailed site plans displaying projected noise contours shall be included in the Specific Plan (or within individual plans, as applicable) for review by Planning and Building prior to approval. **Monitoring.** Planning and Building shall be responsible for ensuring that all sensitive receptors are outside high noise nuisance areas or are otherwise mitigated. If sensitive receptors are proposed for location in areas within the 60 dBA CNEL noise contour for area roadways, Planning and Building shall ensure that Future Development



Program measure N-3(b) (Reduction of Nuisance Noise) is applied.

**Future Development
Program N-3(b)**

Reduction of Nuisance Noise. For any noise sensitive development proposed within projected 60 dBA noise contours, a site-specific acoustical study shall be conducted. This study shall contain recommendations to mitigate any noise levels that exceed the County's standard of 60 dBA CNEL. Because no application has been filed subsequent to the Agricultural Residential Cluster Subdivision, the specific attenuation methods cannot be definitively determined. Options could include one or more of the following approaches:

- Construction of a berm or wall;
- Design of individual homes such that structures block the line-of-sight from useable backyards to the noise source;
- For homes with backyards not blocked by intervening structures, backyard fencing of sufficient height to block line-of sight to the noise source;
- Placement of windows and balconies away from the noise source, as applicable;
- Within residences, bathrooms and kitchens should be located toward the noise source, while bedrooms should be located away from the noise source; or
- Development should follow normal construction practices and Uniform Building Code requirements. Use of noise reducing building materials, such as double paned windows, shall be used to further reduce indoor noise levels by insulating against outdoor noise sources.

Plan Requirements and Timing. Acoustical studies shall be submitted for review and approved by Planning and Building prior to approval of building permits. The design of noise barriers and sensitive structures shall be examined by an approved noise consultant, to determine if they provide sufficient mitigation to comply with Noise Element standards related to outdoor noise exposure. **Monitoring.** Planning and Building staff shall review and approve the required report prior to issuance of a Building Permit. Building inspectors shall make site inspections to assure implementation of approved plans.

Residual Impacts. Impacts would be less than significant. It should be noted that the construction of sound attenuation devices may create aesthetic impacts that may be undesirable and may affect the rural character of the area. To mitigate this potential secondary impact to the degree feasible, the following measure is recommended:

**Future Development
Program N-3(b)**

Sound Wall Design. Long expanses of walls or fences shall be interrupted with offsets and provided with accents to prevent



monotony. Landscape pockets and pedestrian access through walls should be provided. Whenever possible, a combination of elements shall be used, including solid fences, walls, and landscaped berms.

Plan Requirements and Timing. Sound wall designs shall be submitted to Planning and Development for review and approval prior to issuance of building permits. **Monitoring.** Planning and Development will review the designs prior to issuance of building permits and spot check implementation of sound walls prior to issuance of occupancy permits.

**Future Development
Program Impact N-4**

Receptors included in the Future Development Program would likely be exposed to runway noise generated by aircraft flying overhead. Although these periodic events could produce periodic noise levels greater than 60 dBA, the 24-hour CNEL noise levels at these receptors would not exceed the County CNEL threshold of 60 dBA. This is a Class III, less than significant impact.

A private air strip is located on the Santa Margarita Ranch, trending north-south approximately 750 feet west of the existing Ranch headquarter facilities. The air strip consists of one 3,400 foot long runway and is used approximately three times per week. The Future Development Program envisions a bed and breakfast, café, amphitheater, and winery on the Ranch headquarter parcel, adjacent to the private air strip. In addition, land uses envisioned southwest of the community of Santa Margarita, including a residential village, guest ranch, lodge, restaurant, winery, and golf course, would be located 0.8 miles south of the air strip. As discussed in Section 4.8.1(c), sound levels were measured during landing and take off of two aircraft at the airstrip (45 dB.com Acoustics Consulting, 2006). According to the report, the added sound level from occasional aircraft operations at the Santa Margarita Ranch airstrip would not exceed 60 dBA over a one-hour period. The County regulates noise over a 24 hour period [CNEL, refer to Section 4.8.1(a)]. Because of the infrequent use of the air strip, 24-hour noise levels at Future Development Program land uses would not be expected to exceed the 60 dBA CNEL standard. Therefore, impacts are less than significant.

Refer to Section 4.9, *Public Safety*, for a discussion of potential safety impacts resulting from air strip operations.

Mitigation Measures. Because the Future Development Program would not expose future residents to aircraft noise that exceeds 60 dBA CNEL, mitigation is not required.

Residual Impacts. Impacts are less than significant without mitigation.

**Future Development
Program Impact N-5**

The Future Development Program would place additional receptors in the vicinity of the Union Pacific Railroad (UPRR), exposing future residents to noise levels exceeding County noise standards. This is a Class II, significant but mitigable, impact.



Several of the Future Development Program conceptual land use locations about the UPRR right-of-way (refer to Figure 2-9 in Section 2.0, *Project Description*). Land uses envisioned in these locations include: a residential village, guest ranch, lodge, restaurant, winery, and golf course; a livestock sales yard; work force housing, three places of worship, and a neighborhood park and swimming pool. Because no application has been filed subsequent to the Agricultural Residential Cluster Subdivision, the exact locations of these future land uses are unknown. Therefore, as a reasonable worst case scenario, any of these land uses could be located within 50 feet of the railroad tracks. At this distance, sensitive receptors would experience a maximum noise level (Lmax) of approximately 110.5 dBA from railroad operations (i.e. during train whistle blowing) (refer to *Railroad Operations* discussion in Section 4.8.1(c) and Table 4.8-1).

Although noise levels would temporarily exceed 60 dBA, the County regulates noise over a 24 hour period [CNEL, refer to Section 4.8.1(a)]. Because Future Development Program land uses would be within 1,000 feet of grade crossings (linearly), noise levels exceeding 60 dBA CNEL would be experienced within approximately 572 feet of the railroad (refer to Table 4.8-8 under Agricultural Residential Cluster Subdivision Impact N-5). Without sufficient mitigation, impacts to development within this contour could be significant.

Mitigation Measures. The following mitigation measures are required:

Future Development Program N-5(a)

Avoidance of Railroad Noise Nuisance. Preferred locations for noise-sensitive Future Development Program components shall be outside of the 60 dBA CNEL contour line (572 feet from the centerline of the railroad). This may require restricted building envelopes for the residential village, guest ranch, lodge, work force housing, places of worship, and neighborhood park. If future development of noise sensitive uses is proposed in within the 60 dBA CNEL contour, Planning and Building shall ensure that Future Development Program measure N-3(b) (Reduction of Nuisance Noise) is applied.

Plan Requirements and Timing. Detailed site plans displaying distances to the UPRR right-of-way shall be included in the Specific Plan (or within individual plans, as applicable) for review by Planning and Building prior to approval.

Monitoring. Planning and Building shall be responsible for ensuring that all structures are outside of the 60 dBA CNEL contour line or are otherwise mitigated. If noise sensitive uses are proposed for location within the 60 dBA CNEL contour, Planning and Building shall ensure that Future Development Program measure N-3(b) (Reduction of Nuisance Noise) is applied.

Residual Impacts. Avoidance of nuisance noise levels would ensure less than significant impacts. Should avoidance be infeasible, implementation of barrier methods and/or residential building design intended to reduce indoor and outdoor noise levels would mitigate nuisance noise experienced by future sensitive receptors, thereby reducing impacts to less than significant levels.



Future Development Program Impact N-6

Sensitive receptors included in the Future Development Program would likely be exposed to noise generated by the existing private hobby railroad that operates sporadically in the northern portion of the Ranch. Although these periodic events could produce periodic noise levels greater than 60 dBA, the 24-hour CNEL noise levels at these receptors would not exceed the County CNEL threshold of 60 dBA. This is a Class III, *less than significant* impact.

A private hobby railroad track is located in the northern portion of the Santa Margarita Ranch property, near the existing Ranch headquarter facilities. The hobby train engines generate track and whistle noise. The Future Development Program envisions a bed and breakfast, café, amphitheater, and winery on the Ranch headquarter parcel, adjacent to the private railroad. According to a noise study conducted by David Lord (Lord, June 13, 2005), whistle noise from the private railroad reaches approximately 72 dBA approximately 800 feet from the source. Although noise levels would temporarily exceed 60 dBA, the County regulates noise over a 24 hour period [CNEL, refer to Section 4.8.1(a)]. Because of the infrequent use of the private railroad, 24-hour noise levels at Future Development Program land uses would not be expected to exceed the 60 dBA CNEL standard. Therefore, impacts are less than significant.

Mitigation Measures. Because the Future Development Program would not expose future residents to private railroad noise that exceeds 60 dBA CNEL, mitigation is not required.

Residual Impacts. Impacts are less than significant without mitigation.

Future Development Program Impact N-7

The Future Development Program includes nine wineries that would hold special events throughout the year and an amphitheater. Noise generated during special events and at the amphitheater, including amplified music, would not significantly affect off-site receptors due to the distance between receptors and anticipated noise sources, and existing County special event permitting requirements. This is a Class III, *less than significant* impact.

The nine wineries envisioned as part of the Future Development Program would each hold up to 42 special events per year, including six events with 1,000 people, six events with 500 people, six events with 300 people, ten events with 200 people, and fourteen events with 100 people. Special events generate noise from general activity, vehicle traffic, and amplified music. The Future Development Program wineries nearest to future sensitive receptors include the winery envisioned off West Pozo Road between the community and proposed Agricultural Residential Cluster Subdivision and the winery envisioned in the existing Ranch headquarters area. The Ranch headquarters area does not contain existing sensitive receptors and is not envisioned to contain future sensitive receptors. The winery envisioned off West Pozo Road between the community and proposed Agricultural Residential Cluster Subdivision could be as close as 200 feet from Future Development Program sensitive receptors, including workforce housing and churches, or as close as 700 feet from the nearest existing residential receptor in the community of Santa Margarita. Other envisioned wineries would be located more than 1,000 feet from receptors. According to a noise study conducted by David Lord (Lord, June 13, 2005), amplified



music, which is expected to generate the highest noise levels during special events, reaches approximately 120 dBA at a 200 watt speaker. Since noise at “soft” sites (defined as a site containing acoustically “soft” ground that absorbs the sound energy, such as a vegetated hillside) attenuates at a rate of 7.5 dBA per doubling of distance, amplified music would produce temporary noise levels up to 82.5 dBA at approximately 200 feet from the source. Although noise levels would temporarily exceed 60 dBA, the County regulates noise over a 24 hour period [CNEL, refer to Section 4.8.1(a)]. When averaged over a 24 hour period, special events noise would not exceed County noise thresholds. In addition, nuisance noise from special events is regulated through the County’s permitting process for commercial outdoor entertainment events (County Code Section 6.56). Violations of the terms of the commercial outdoor entertainment event license could result in revocation of the license. Due to the relatively infrequent noise generated by special events, the distance between receptors and envisioned special event locations, and existing County oversight programs for outdoor events, noise generated by special events on the property would be less than significant. Therefore, impacts are less than significant.

Mitigation Measures. Because the Future Development Program would not expose receptors to noise levels that exceed County thresholds, mitigation is not required.

Residual Impacts. Impacts are less than significant without mitigation.

d. Cumulative Impacts. The evaluation of the Future Development Program, which includes the Agricultural Residential Cluster Subdivision, in this section included regional growth outside the vicinity, consistent with the traffic projections provided in Section 4.12, *Transportation and Circulation*. Therefore, cumulative agricultural impacts from buildout of the Agricultural Residential Cluster Subdivision in combination with buildout of the Future Development Program were addressed in the Future Development Program impact analysis above. As future applications for individual Future Development Program projects are submitted at a project level of detail, the precise evaluation of future project cumulative impacts would be coordinated through the required Specific Plan and associated environmental review, or through individual project-level environmental review, as applicable.

