

4.8 NOISE

4.8.1 Setting

a. Overview of Sound Measurement. Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness 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. Regulatory Policies.

Federal Policies and Regulations. The Federal Noise Control Act of 1972 Section 2 [42 U.S.C. 4091] states the following:

(a) The Congress finds (1) that inadequately controlled noise presents a growing danger to the health and welfare of the Nation's population, particularly in urban areas; (2) that the major sources of noise include transportation vehicles and equipment, machinery, appliances, and other products of commerce; and (3) that, while primary responsibility for control of noise rests with State and local governments, Federal action is essential to deal with major noise sources in commerce control of which require national uniformity and treatment.

(b) The Congress declares that it is the policy of the United States to promote an environment for all Americans free from noise that jeopardizes their health or welfare. To that end, it is the purpose of this Act to establish a means for effective coordination of Federal research and activities in noise control, to authorize the establishment of Federal noise emission standards for projects distributed in commerce, and to provide information to the public respecting the noise emission and noise reduction characteristics of such products.

California Government Code. The contents of General Plan *Noise Elements* and the methods used in their preparation have been determined by the requirements of Section 65302 (f) of the California Government Code and by the *Guidelines for the Preparation and Content of the Noise Element of the General Plan* prepared by the California Department of Health Services and included in the 1900 State of California *General Plan Guidelines*. The *General Plan Guidelines* require that major noise sources and areas containing noise-sensitive land uses be identified and quantified by preparing generalized noise exposure contours for current and projected conditions. Contours may be prepared in terms of either the Community Noise Equivalent



Level (CNEL) or the Day-Night Average Level (Ldn), which are descriptors of total noise exposure at a given location for an annual average day. The CNEL and Ldn are generally considered to be equivalent descriptors of the community noise environment within plus or minus one dB.

County of San Luis Obispo Noise Element. The Noise Element of the County General Plan 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 Table 4.8-1 and Table 4.8-2, below.

Table 4.8-1: Maximum Allowable Noise Exposure from Transportation 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 4.8-2: Maximum Allowable Noise Exposure from Stationary 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.

In addition, the Airport Land Use Plan for the San Luis Obispo County Regional Airport (ALUP) includes standards for areas subject to airport noise. The ALUP defines residences as “extremely noise sensitive land uses” and prohibits them within the projected 55-dB CNEL contour with the exception of developments that meet criteria for mitigation or infill projects.



c. Sensitive Receptors. Some land uses are considered more sensitive to ambient noise levels than others, due to the amount of noise exposure and the types of activities involved. Noise-sensitive uses that have been identified by the County include the following:

- Residential development, except temporary dwellings;
- Schools (preschool to secondary, college and university, specialized education and training);
- Health care services (hospitals);
- Nursing and personal care;
- Churches;
- Public assembly and entertainment;
- Libraries and museums;
- Hotels and motels;
- Bed and breakfast facilities;
- Outdoor sports and recreation; and
- Offices.

d. Existing Conditions. The quietest areas of the county are those that are removed from major transportation-related noise sources and local industrial or other stationary noise sources. For example, rural portions of the El Pomar-Estella, Shandon-Carrizo Plain, Adelaida, Los Padres, San Luis Obispo and South County planning areas and some of the County Urban/Village areas such as Heritage Ranch are generally quiet. The noisier locations identified in the County Noise Element are areas located near Highway 101 and major arterial roadways. However, the County Noise Element indicates that existing background noise levels in many areas of the county that contain noise-sensitive land uses are relatively quiet. To preserve quiet conditions, the County has adopted noise level standards and policies to prevent degradation of the existing noise environment as much as possible.

Figure 4.8-1 shows the location of the 60 dBA contour from the Noise Element in relation to the project area. The 60 dBA contour is located along the major transportation corridors in the county and can vary depending on traffic volume and topography. The greatest transportation-related noise exposure within the project area occurs along Highway 101 in the northern portion of the county between Paso Robles and Monterey County and along Highway 46 east of Paso Robles. The rural and agricultural areas east of Nipomo are also located partially within the 60 dBA contour due to noise from Highway 101.

There are a number of potentially significant sources of community noise within the County and its incorporated cities. These sources include traffic on state highways, major county roadways and city streets, railroad operations, airport operations, military activities and industrial facilities. Specific noise sources selected for study, including transportation and stationary sources are discussed below.

Transportation Noise Sources. Sources of transportation noise include traffic on public roadways, railroad lines, and airports. Control of these noise sources is usually preempted by existing federal or state regulations. However, the effects of noise from transportation sources may be controlled by regulating the location and design of specific land uses affected by these sources.



Noise sources from major highways and roadways can vary significantly from one area of the County to another. Variables that affect how traffic noise is perceived include vehicular volume, type of vehicles, proximity to the noise source, time of day, speed, roadway configuration, and the acoustical and topographical characteristics of the site. For example, Highway 101 traffic noises could be quite substantial at a given location if a noise measurement is taken during peak hour traffic at a short distance from the highway, where the same noise measured at a distance of 500 feet away would be perceived as barely noticeable.

Topography also plays a significant role in the perception of traffic related noise emissions. Road segments that are cut below or elevated above existing grade will produce a quieter noise environment. Sites that have abundant vegetation (soft sites) will absorb sound pressure waves much better than an area that is predominantly asphalt or concrete (hard site).

State Highways and Major County Roadways. Major highway transportation related noise sources within the County include State Route (SR) 1, SR 41, SR 46, SR 58, U.S. Highway 101, and SR 227. Generalized noise contours have been included in the County Noise Element, and a distance of approximately 800 to 1,200 feet generally characterizes the 60 dBA noise contour for U.S. 101, which is the main north-south artery for the County (60 dB is the County threshold for mitigation). The 60 dB contours are generally much closer to the edge of pavement on SR 1, SR 41, SR 46, SR 58, and SR 227 because of the lower traffic volumes on those road segments and the acoustical and topographical characteristics of the rural areas they traverse.

Railroad Noise. The mainline of the Union Pacific Railroad (formerly the Southern Pacific Transportation Company Railroad) passes through the County in a generally north-south direction. County planning areas affected by railroad noise include South County (Inland and Coastal), San Luis Bay (Inland and Coastal), San Luis Obispo, and Salinas River. According to railroad officials, an average of four freight trains and two passenger trains pass through the county every day. One of the freight trains passes through the county at night, between the hours of 10:00 p.m. and 7:00 am.

There are a variety of railroad operating conditions in the County, including grade crossings, curves, grades and congested areas within cities or unincorporated communities. As a result, speeds and the use of the warning horn vary considerably from location to location, as does the noise environment associated with train movements in the County.

Aircraft Noise. There are three public use airports located within the County: the San Luis Obispo County Airport (SBP), the Paso Robles Municipal Airport (PRB), and the Oceano Airport. Operational scenarios of each County airport suggest that by the year 2020, as the facilities reach capacity, there will be approximately four times more air traffic than present conditions (San Luis Obispo County, 2005; City of Paso Robles, 2005). The airport capacity scenario includes a shift to larger turboprop commuter aircraft and jet aircraft capable of carrying 50 to 60 passengers. As a result, aircraft noise could be quite significant in the future.

Stationary Noise Sources. The primary sources of stationary noise within the County include industrial, commercial and agricultural operations. Federal and State employee health and safety regulations (OSHA and Cal-OSHA, respectively) control noise production within an



industrial or commercial facility or in close proximity to many types of agricultural equipment. However, exterior noise from such operations has the potential to exceed locally acceptable standards at nearby noise-sensitive land uses.

Stationary noise control issues focus upon two objectives: to prevent the introduction of new noise-producing uses in a noise sensitive area, and to prevent encroachment of noise-sensitive land uses upon existing noise-generating facilities. The County attempts to achieve these objectives by applying performance standards and by requiring that new noise-sensitive uses in proximity to existing noise sources include receiver-based mitigation measures.

Examples of major stationary noise sources identified within the County include:

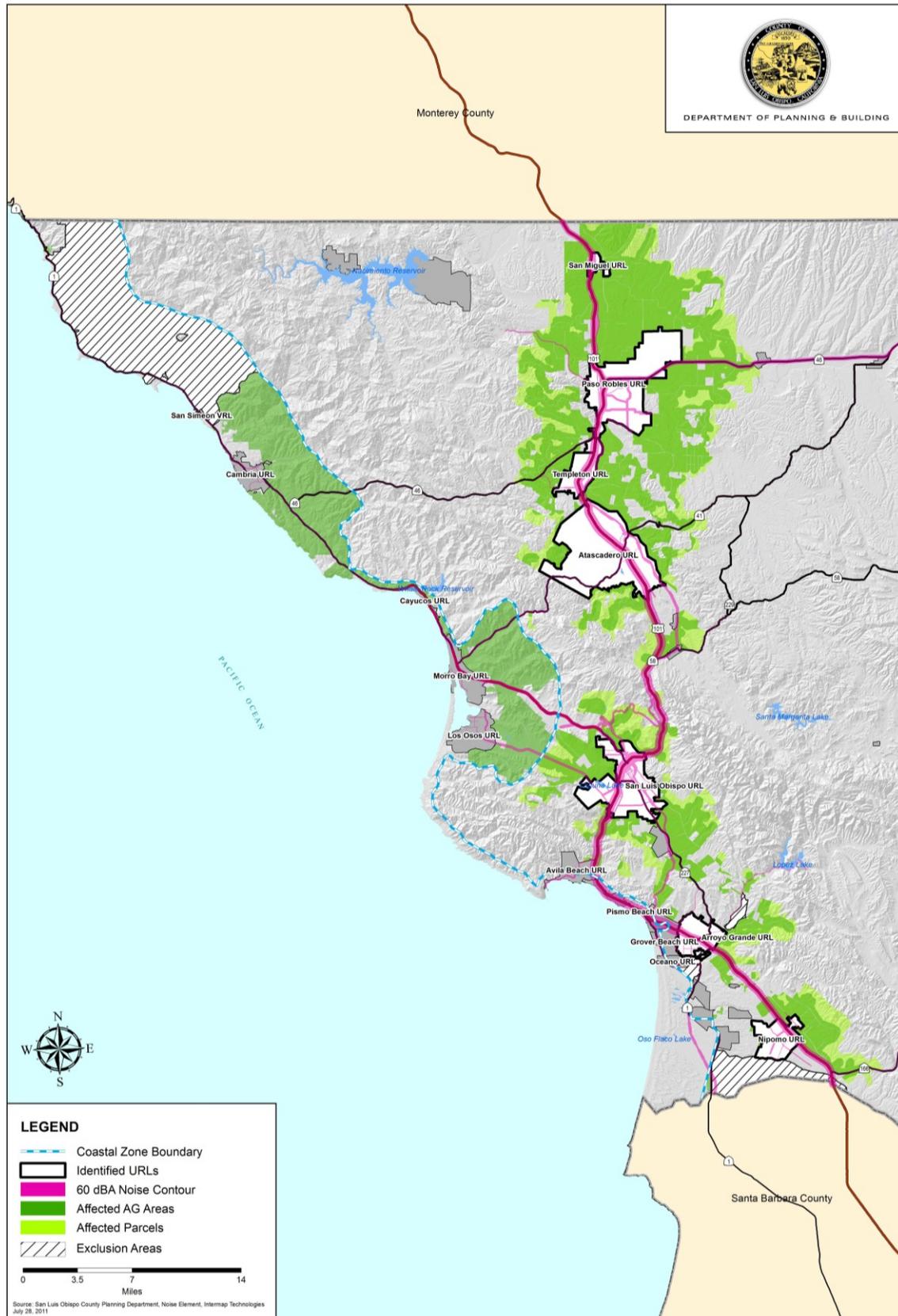
- Union Asphalt Batch Plant, Ramada Drive (Templeton)
- Navajo Concrete Batch Plant, Ramada Drive (Templeton)
- Dirtman Sand and Gravel Plant, Templeton Road (Templeton)
- Southern Pacific Milling Company Sand and Gravel Plant (Santa Margarita)
- Southern Pacific Milling Company Concrete Plant, Suburban Road (San Luis Obispo)
- Air-Vol Block, Suburban Road (San Luis Obispo)
- Light Industrial Uses, El Camino Real, Brisco Road, and Hillcrest Drive (Arroyo Grande)
- Commercial Use, Brisco Road and Grand Avenue (Arroyo Grande)
- The Cannery (Morro Bay)
- Commerce/Chandler Area (Paso Robles)
- North River Road Area (Paso Robles)
- San Luis Tank (Paso Robles)
- Union/Golden Hill Road Area (Paso Robles)
- Camp Roberts Military Reservation (San Miguel)
- Produce Cold Storage Facilities (Oceano)

Agricultural operations represent a major future stationary noise source in relation to the proposed Agricultural Cluster Subdivision Program, which would potentially introduce noise-sensitive land uses into areas with existing and future noise-generating facilities. Stationary agricultural noise sources include the following:

- Processing facilities
- Agricultural farm vehicles including tractors, trucks, mowers, and all-terrain vehicles
- Field operations, including harvesting, mowing, and spraying
- Wind machines (temperature regulating equipment)
- Well water pumps
- Pest repellent devices



Figure 4.8-1: 60 dBA Noise Contour Overlay



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4.8.2 Impact Analysis

a. Methodology and Significance Thresholds. For purposes of this EIR, an impact is significant if development pursuant to the proposed Agricultural Cluster Subdivision Program would expose existing and future sensitive receptors to noise levels exceeding County standards. The following significance criteria for noise impacts were derived from the San Luis Obispo County Environmental Checklist, previous environmental analyses and from the CEQA Guidelines (Appendix G, Environmental Checklist Form, Section IX). Impacts of the proposed amendments would be considered significant and would require mitigation if the project 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. Refer to Impacts N-2 and N-3, below.*
- *Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels. Refer to Impact N-3, below.*
- *A substantial permanent increase in ambient noise levels above levels existing without the project. Refer to Impact N-2, below.*
- *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Refer to Impact N-1, below.*
- *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, exposing people residing or working in the project area to excessive noise levels. Refer to Impact N-3, below.*

b. Project Impacts and Mitigation Measures.

Impact N-1 The proposed Agricultural Cluster Subdivision Program could lead to residential development in rural/agricultural areas of the county. Such development could expose sensitive receptors to short-term construction-noise and vibration. Compared to the existing ordinance, the program would reduce the potential for construction-related noise. Impacts compared to the existing ordinance would therefore be Class III, *less than significant*. Compared to existing conditions, however, the program would result in additional construction-related noise from new development. Impacts compared to existing conditions would be Class II, *significant but mitigable*.

Compared to Development Potential under the Existing Ordinance

When compared to development potential under the existing ordinance, the proposed amendments would reduce the number of residential cluster parcels that could potentially be created in the county from 4,582 to 418, a 91 percent reduction. The program would also introduce the Agricultural Cluster Subdivision Program into the Coastal Zone; however, the coastal version of the program would only authorize the reconfiguration of existing underlying lots into residential cluster lots, essentially replacing current lot line adjustment procedures with more restrictive agricultural clustering standards. Therefore, since the program would



reduce development potential while strengthening existing standards for agricultural cluster subdivisions, it would be anticipated to result in Class III, *less than significant*, construction-related noise impacts.

Compared to Existing Conditions

Compared to existing conditions, the proposed Agricultural Cluster Subdivision Program would allow for the development of up to 418 new single family residences in agricultural areas within five miles of the URLs of Arroyo Grande, Atascadero, San Luis Obispo, San Miguel, Nipomo, Paso Robles, and Templeton. Based on a minimum lot size of 2.5 acres and a maximum lot size of 5 acres, the proposed program could result in the disturbance of between 1,045 and 2,090 acres of undeveloped land (less than one percent of the 261,851 acre project area) for construction, grading, and site preparation activities.

The Agricultural Cluster Subdivision Program would also allow for the reconfiguration of legally established underlying lots in eligible areas of the Coastal Zone (rural North Coast and Estero planning areas, excluding Hearst Ranch) to accommodate residential development. To date, 320 legal underlying lots have been identified in these areas. However, since many of these lots could already be developed in their current configuration with fewer restrictions than would be required under the proposed amendments, only a small percentage of the eligible lots would be likely to participate in the program. Any future reconfiguration would nonetheless result in the construction of new residences in the Coastal Zone.

Construction could cause temporary, short-term noise impacts on adjacent noise-sensitive land uses. 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 4.8-3, 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 4.8-3: 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.



Existing ordinance standards (LUO Section 22.10.120(A)(4)/CZLUO Section 23.06.042(d)) restrict construction noise to the hours between 7:00 a.m. to 9 p.m. on weekdays and 8:00 a.m. to 5:00 p.m. on weekends. While these standards address nighttime noise, construction activities authorized under the program could interfere with normal daytime activities. Mitigation measures are available to reduce this impact to a less than significant level. Impacts would therefore be Class II, *significant but mitigable*.

Mitigation Measures. Existing noise standards restricting construction activities to the hours between 7:00 a.m. to 9:00 p.m. on weekdays and 8:00 a.m. to 5:00 p.m. on weekends address potential impacts related to temporary nighttime construction noise. As described below, implementation of a Noise Reduction Plan would reduce daytime construction noise impacts to less than significant levels:

- N-1(a) Noise Reduction Plan.** At the time of application for subdivision improvement plans or grading permits, the applicant shall submit a Noise Reduction Plan prepared by a qualified acoustical consultant for review and approval by the County Department of Planning and Building. The Noise Reduction Plan shall include but is not limited to:
- Limit all phases of construction to the hours of 7:00 a.m. and 9:00 p.m. Monday through Friday as required by County Land Use Ordinance Section 22.10.120(A)(4);
 - Regular notification of all existing and future residences within 1,000 feet of the site boundary concerning the construction schedule;
 - Shield especially loud pieces of stationary construction equipment;
 - Locate portable generators, air compressors, etc. away from sensitive noise receptors;
 - Limit grouping major pieces of equipment operating in one area to the greatest extent feasible;
 - Place heavy traffic areas such as the maintenance yard, equipment, tool, and other construction oriented operations, in locations that would be the least disruptive to surrounding sensitive noise receptors;
 - Conduct worker-training meetings to educate and encourage noise awareness and sensitivity. This training should focus on worker conduct while in the vicinity of sensitive receptors (i.e. minimizing and locating the use of circular saws in areas adjacent to sensitive receptors and being mindful of shouting and the loose use of attention drawing language); and
 - Notify surrounding residences in advance of the construction schedule when unavoidable construction noise and upcoming construction activities likely to produce an adverse noise environment are expected. Noticing shall provide phone number of project monitor, County inspector, construction foreman, etc. This notice shall be given one week in advance, and at a minimum of one day in advance of anticipated activities have changed. Project representatives shall verbally notify all surrounding residential owners.



Residual Impacts. When compared to development potential under the existing ordinance, impacts would be Class III, *less than significant*. When compared to existing conditions, impacts would be Class II, *significant but mitigable*.

Impact N-2 Long-term traffic generated as a result of the proposed Agricultural Cluster Subdivision Program would incrementally increase noise levels at existing receptors located adjacent to County roadways. Compared to the existing ordinance, the program would reduce potential vehicle trips and associated traffic noise. Impacts compared to the existing ordinance would be Class III, *less than significant*. Compared to existing conditions, however, the program would increase vehicle trips and associated traffic noise. Impacts compared to existing conditions would be Class I, *significant and unavoidable*.

Compared to Development Potential under the Existing Ordinance

As described in Section 4.10, Transportation and Circulation, the proposed amendments are anticipated to reduce average daily vehicle trips by 90.9 percent (45,820 to 4,180 trips) when compared to development potential under the existing program. As a result, the proposed amendments would reduce potential traffic noise associated with agricultural cluster development. Impacts would therefore be Class III, *less than significant*.

Compared to Existing Conditions

As described in Section 4.10, Transportation and Circulation, the proposed amendments could result in up to 4,180 average daily vehicle trips (including 334 a.m. and 418 p.m. peak hour trips) on County roadways. Many of these trips would occur on major highways and roadways where traffic noise is projected to exceed 60 dBA on adjacent lands at General Plan build-out (refer to Figure 4.8-1). Future agricultural cluster development would be consistent with the build-out potential anticipated under the County's General Plan. As a result, operational noise impacts resulting from the program would not necessarily be greater than what could currently occur without the proposed project under the existing ordinance. Nevertheless, the proposed program could increase noise beyond acceptable levels (60 dB) at existing sensitive receptors (primarily residences) located along affected roadways. The only way to mitigate this impact would be to retrofit existing sensitive receptors with noise attenuation (e.g. solid core doors, and/or double paned windows) or to construct off-site noise barriers (e.g. sound walls). These measures would rely on the cooperation of off-site property owners, which cannot be assured. Impacts would therefore be 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. When compared to development potential under the existing ordinance, impacts would be Class III, *less than significant*. When compared to existing conditions, impacts would be Class I, *significant and unavoidable*.



Impact N-3 The proposed Agricultural Cluster Subdivision Program could place noise-sensitive receptors in areas exposed to nuisance noise levels. Compared to the existing ordinance, the program would reduce the potential for residential development to be placed in areas exposed to nuisance noise levels. Impacts would be Class III, *less than significant*. Compared to existing conditions, however, the program would place new residences in areas exposed to nuisance noise levels. Impacts compared existing conditions would therefore be Class II, *significant but mitigable*.

Compared to Development Potential under the Existing Ordinance

As described in Impact N-1, several proposed ordinance revisions would reduce overall development potential in agricultural areas of the county. As a result of these revisions, the area of the county eligible for agricultural cluster subdivision would be reduced from 1,221,249 to 223,656 acres, and the number of residences that could be developed through an agricultural cluster subdivision would be reduced from 4,582 to 418. The program would also introduce the Agricultural Cluster Subdivision Program into the Coastal Zone; however, the coastal version of the program would only authorize the reconfiguration of existing underlying lots into residential cluster lots, essentially replacing current lot line adjustment procedures with more restrictive agricultural clustering standards. The proposed amendments would therefore result in a commensurate reduction in the potential for new residences to be placed in areas exposed to nuisance noise levels. Impacts would therefore be Class III, *less than significant*.

Compared to Existing Conditions

According to San Luis Obispo 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 or stationary noise sources which exceed 60 dBA CNEL.

As described in Impact N-1, the proposed Agricultural Cluster Subdivision Program could result in the development of up to 418 new single family residences in the Inland portion of the county, and additional residential development in eligible areas of the Coastal Zone. These additional units would result in an associated population increase of approximately 969 residents (based upon a population generation factor of 2.318 persons per unit). This increase in housing units and associated human activity near transportation or stationary noise sources could result in the exposure of sensitive receptors to noise levels which exceed 60 dBA CNEL.

Since there are no applications for individual development projects in accordance with the proposed Agricultural Cluster Subdivision Program, it is not possible to estimate projected future noise levels at future housing units at this time. However, implementation of the proposed amendments could place sensitive receptors near state highways, major county roadways or city streets, railroad operations, public or private airport operations, military activities and/or industrial facilities. As such, future residences resulting from the program could be exposed to nuisance noise levels and ground-borne vibration from these uses.



Specifically, portions of the eligible project area are located near major roadways and railroad lines. Impacts are therefore Class II, *significant but mitigable*.

Mitigation Measures. Individual agricultural cluster projects will be reviewed for compliance with existing ordinance standards (LUO Section 22.10.120 / CZLUO Section 23.06.040) and the Noise Element of the County General Plan. Projects which could potentially expose sensitive receptors (including outdoor activity areas and indoor areas) to nuisance noise levels would be required to submit an acoustical study and to implement the recommendations of that study. Implementation of this measure would reduce impacts to a less than significant level.

N-3(a) Reduction of Nuisance Noise. For any noise sensitive development proposed within projected 60 dBA noise contours, the applicant shall prepare a site-specific acoustical study by a qualified acoustical engineer and shall implement any recommendations of that study; this study shall contain recommendations to mitigate any noise levels that exceed the County's standard of 60 dBA CNEL. Options could include one of 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 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.

Residual Impacts. When compared to development potential under the existing ordinance, impacts would be Class III, *less than significant*. When compared to existing conditions, impacts would be Class II, *significant but mitigable*.



Impact N-4 The proposed Agricultural Cluster Subdivision Program could expose sensitive receptors to stationary noise sources from agricultural operations, resulting in a direct long-term noise impact. Compared to the existing ordinance, the program would reduce development potential near agricultural operations. Compared to existing conditions, the program would continue to allow for residential development near agricultural operations. Impacts compared to both the existing ordinance and existing conditions would be Class III, *less than significant*.

Compared to Development Potential under the Existing Ordinance

Under both the existing ordinance and proposed amendments, agricultural cluster subdivisions would be subject to the County's adopted buffer policies. In accordance with these policies, the Agricultural Commissioner reviews individual agricultural cluster projects and recommends minimum buffer distances in order to minimize residential/agricultural land use conflicts, including the effects of agricultural noise sources on proposed residences. Buffer distances would range from 50 feet for livestock grazing to 800 feet for vineyards and other more intensive agricultural operations. Therefore, with implementation of existing buffer policies, impacts would be Class III, *less than significant*.

Compared to Existing Conditions

As described in Impact N-1, the proposed Agricultural Cluster Subdivision Program could lead to the construction of up to 418 new residences in the Inland portion of the county and would facilitate residential development that otherwise wouldn't occur in the Coastal Zone. As required under the proposed amendments, these new residences would be constructed only in areas where there is a demonstrated history of an on-going agricultural use. As a result, agricultural cluster development would be exposed to agricultural noise sources, including farming equipment, wind machines (temperature regulating equipment), well water pumps, and pest repelling devices.

The proposed amendments would include restrictive standards intended to reduce potential land use conflicts between agricultural and non-agricultural uses. Most notably, the standards would clarify existing agricultural buffer requirements and would establish larger minimum parcel sizes to accommodate the required buffers. Additionally, the requirement for physically contiguous cluster parcels would minimize the amount of direct interface between residential and agricultural uses. Therefore, with implementation of the proposed restrictive standards and existing noise standards, impacts would be *Class III, less than significant*.

Mitigation Measures. Implementation of existing agricultural buffer policies will ensure that agricultural-related noise impacts will not be significant. The proposed ordinance amendments would clarify these existing requirements and would establish larger minimum parcel sizes to accommodate the required buffers. No measures beyond the existing requirements are necessary.



Residual Impacts. With implementation of existing agricultural buffer policies and the proposed restrictive provisions, impacts compared to both the existing ordinance and existing conditions would be Class III, *less than significant*.

c. Cumulative Impacts. This section describes the cumulative impacts of the proposed Agricultural Cluster Subdivision Program compared to development potential under both the existing ordinance and existing conditions. The geographic scope for the noise cumulative analysis is the unincorporated areas of San Luis Obispo County.

Compared to Development Potential under the Existing Ordinance

As described in Impact N-1, several proposed ordinance revisions would reduce overall development potential in agricultural areas of the county. As a result of these revisions, the area of the county eligible for agricultural cluster subdivision would be reduced from 1,221,249 to 223,656 acres, and the number of residences that could be developed through an agricultural cluster subdivision would be reduced from 4,582 to 418. When compared to the existing ordinance, the proposed amendments would therefore reduce the number of residences that could potentially be developed in areas where they would be exposed to unacceptable noise levels. Cumulative impacts would therefore be Class III, *less than significant*, when compared to the existing ordinance.

Compared to Existing Conditions

As described in Impact N-1, the proposed Agricultural Cluster Subdivision Program could lead to the construction of up to 418 new residences in the Inland portion of the county and would facilitate residential development that otherwise wouldn't occur in the Coastal Zone. When considered together with the cumulative projects in Table 3.3-1, development resulting from the proposed program could incrementally increase traffic levels along major County roadways. Future agricultural cluster development would be consistent with the build-out potential anticipated under the County's General Plan. As a result, operational noise impacts resulting from the program would not necessarily be greater than what could currently occur without the proposed project. Nevertheless, the proposed program could increase noise beyond acceptable levels at existing sensitive receptors (primarily residences) located along affected roadways. Cumulative impacts would therefore be Class I, *significant and unavoidable*.

