

4.10 Noise

This section evaluates the potential for the proposed Plan to result in noise impacts on sensitive receptors. The impact analysis is based upon buildout traffic projections for the proposed Plan and standards established by the County. The analysis is programmatic in nature and describes future development in accordance with buildout of the proposed Plan. Noise modeling calculations for existing and buildout traffic conditions are contained in Appendix G.

4.10.1 Setting

4.10.1.1 Noise Terminology

The unit of measurement used to describe a noise level is the decibel (dB). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. A 10 dB increase represents a 10-fold increase in sound intensity, a 20 dB change is a 100-fold difference, 30 dB is a 1,000-fold increase, etc. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease.

The human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, a method called “A-weighting” is used to filter noise frequencies that are not audible to the human ear. A-weighting approximates the frequency response of the average young ear when listening to most ordinary everyday sounds. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-weighted levels of those sounds. Therefore, the A-weighted noise scale is used for measurements and standards involving the human perception of noise. In this report, all noise levels are A-weighted and dB(A) is understood to identify the A-weighted decibel.

In addition to noise levels, the duration of noise over time is also important for the assessment of potential noise disturbance. Average noise levels over a period of minutes or hours are usually expressed as dB(A) equivalent noise level (L_{eq}), i.e., the equivalent noise level for that period. The period of time averaged may be specified; $L_{eq(3)}$ would be a 3-hour average; when no period is specified, a 1-hour average is assumed.

The timing of noise is also an important factor to consider in assessing potential noise impacts, as noise levels that may be acceptable during the day may create disturbance during evening or nighttime hours. Two noise metrics used in this analysis are the Community Noise Equivalent Level (CNEL) and the day–night average noise level (L_{dn}). The CNEL is the energy average of the A-weighted sound levels occurring during a 24-hour period, with a 5 dB(A) penalty added to the sound levels occurring between 7:00 P.M. and 10:00 P.M. and 10 dB(A) added to the sound levels occurring between 10:00 P.M. and 7:00 A.M. The day–night average noise level (L_{dn}) is a 24-hour dB(A) L_{eq} from midnight to midnight obtained after the addition of 10 dB(A) to the sound levels occurring between 10:00 P.M. and 7:00 A.M. Adding 5 and 10 dB(A) to the evening and

nighttime hours, respectively, accounts for the added sensitivity of humans to noise during this time period.

Human perception of noise has no simple correlation with acoustical energy. The perception of noise is not linear in terms of dB(A) or in terms of acoustical energy. Two equivalent noise sources do not sound twice as loud as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dB(A), increase or decrease; that a change of 5 dB(A) is readily perceptible; and that an increase (decrease) of 10 dB(A) sounds twice (half) as loud (California Department of Transportation [Caltrans] 2013). Table 4.10-1 provides examples of common activities and the sound levels associated with those activities.

Table 4.10-1: Typical Noise Levels		
Common Outdoor Activities	Noise Level [dB(A)]	Common Indoor Activity
Rock Band	110	--
Jet Fly-over at 300 m (1,000 feet)	100	--
Gas Lawn Mower at 1 m (3 feet)	90	--
Diesel Truck at 15 meter (50 feet), at 80 kilometer/hour (50 mph)	80	Food Blender at 1 meter (3 feet) Garbage Disposal at 1 meter (3 feet)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 meters (100 feet)	70	Vacuum Cleaner at 3 meters (10 feet)
Commercial Area Heavy Traffic at 90 meters (300 feet)	60	Normal Speech at 1 meter (3 feet)
Quiet Urban Daytime	50	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	30	Library
Quiet Rural Nighttime	20	Bedroom at Night, Concert Hall (Background)
--	10	Broadcast/Recording Studio
--	0	Lowest Threshold of Human Hearing

SOURCE: Caltrans 2013

From the source to the receiver, noise changes both in level and frequency spectrum. The most obvious change is the decrease in noise as the distance from the source increases. The manner in which noise reduces with distance depends on the following important factors: ground absorption, atmospheric effects, and refraction, shielding by natural and man-made features, noise barriers, diffraction, and reflection. For a point or stationary noise source, such as construction equipment, the attenuation or drop-off in noise level would be at least -6 dB(A) for each doubling of unobstructed distance between source and the receiver and could increase to -7.5 dB(A) depending on the acoustic characteristics of the intervening ground. For a linear noise source, such as vehicles traveling on a roadway, the attenuation or drop-off in noise level would be approximately -3 dB(A) for each doubling of unobstructed distance between source

and the receiver and could increase to -4.5 dB(A) depending on the acoustic characteristics of the intervening ground.

A large object in the path between a noise source and a receiver can significantly attenuate noise levels at that receiver. The amount of attenuation provided by this “shielding” depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, as well as man-made features, such as buildings and walls, can significantly alter noise levels. Walls or berms are often specifically used to reduce or attenuate noise.

Noise-sensitive receptors are generally considered humans engaged in activities, or occupying land uses, that may be subject to the stress of significant interference from noise. Human activities usually associated with sensitive receptors include, but are not limited to, talking, reading, and sleeping. Land uses associated with noise-sensitive human receptors include residential dwellings including mobile homes, hotels/motels, hospitals, nursing homes, educational facilities, and libraries. In addition to human receptors, protected animal species and their habitats may be considered sensitive noise receptors, especially during their breeding/nesting season.

4.10.1.2 Existing Noise Conditions

Due to the limited development and large expanses of rural, mountainous areas, and parkland, the ambient noise levels in most areas of the Plan Area are lower than urbanized areas of the County. A noise survey was conducted as a part of the Santa Barbara County Comprehensive Plan. Noise levels in the more rural portions of the County ranged from 46 to 50 dB(A) L_{eq} . As shown in Table 4.10-1, typical nighttime noise levels in a quiet rural setting can be as low as 20 db(A) L_{eq} . These rural noise levels are typical of the Plan Area. The primary continuous existing noise source in the Plan Area is vehicle traffic on Highway 101 and Highway 1, and trains along the Union Pacific Railroad. Some additional noise sources are generated by ongoing operation of farm equipment and agricultural operations as well as construction, energy production and commercial activities, and other community noise within the Plan Area from normal activities associated with existing land uses. For example, within agricultural areas sources of noise can include trucks, tractors, chainsaws, and other farm equipment. Within residential areas, noise sources include dogs, landscaping maintenance, and parties. Sources of noise from permitted industrial and commercial uses include heavy machinery and truck loading/unloading. Noises from these types of activities would be considered normal environmental noises that would be expected to occur within these types of land uses and are not typically considered significant sources of noise. Other stationary sources include activities at the Tajiguas Landfill, ExxonMobil's Las Flores Canyon Facility, and Pacific Offshore Pipeline Company gas processing facility.

Railway noise results from train travel, horns, emergency signaling devices, and stationary bells at grade crossings. One railroad company, the Union Pacific Railroad, operates in the Plan Area. The Union Pacific Railroad generally follows the coast through the County. Two

passenger trains and an average of twelve freight trains traverse the Union Pacific Railroad main line daily.

Along the Union Pacific Railroad main line, maximum sound levels from passing trains at one hundred feet from the tracks reach 96 to 100 dB(A) L_{eq} . At the same location, CNEL values, representing the weighted average of all train noise for a 24-hour period, are between 70 and 75 CNEL. In the Plan Area, noise levels are 60 CNEL or less beyond about 600 feet from the tracks (County of Santa Barbara 2009). Noise levels are 65 CNEL or less beyond 335 feet from the tracks.

Vandenberg AFB is located approximately 11 miles northwest of the Plan Area and the Santa Barbara Municipal Airport is approximately four miles east of the Plan Area. The Plan Area is outside of the adopted Airport Land Use Compatibility Plan (ALUCP) Airport Influence Area (AIA) for both Vandenberg AFB and the Santa Barbara Municipal Airport. Thus, while there may be the occasional aircraft overflight, the Plan Area is not exposed to significant aircraft noise.

Highway 101 generates the greatest noise level from vehicle traffic in the Plan Area, as shown on the noise contour for the Plan Area on Figure 4.10-1. Other roads analyzed in the traffic assessment include Highway 1, Calle Real, Refugio Road, and Jalama Road. Existing noise level contour distances were calculated for each roadway segment. Calculations and results of noise modeling are included in Appendix G. The noise contour distances represent the predicted noise level for each roadway without the attenuating effects of noise barriers, structures, or topography and are not expected to replace detailed acoustical analysis when required for a site-specific condition. Given the varied topography of the Plan Area, it is expected that the combination of hills, berms, and vegetation would result in lower actual noise levels in some locations. Table 4.10-2 summarizes the vehicle traffic noise contour distances.

Table 4.10-2: Existing Vehicle Traffic Noise Contour Distances				
Roadway	Segment	Distance to (feet)		
		70 CNEL	65 CNEL	60 CNEL
Highway 1	West of Highway 101	76	163	351
Highway 101	Hollister Avenue to El Capitan State Beach Road	215	463	998
	El Capitan State Beach Road to Highway 1	208	449	967
	Highway 1 to Santa Rosa Road	176	379	817
Calle Real	East of Refugio Road*	--	13	29
Refugio Road	North of Calle Real	--	7	16
Jalama Road	West of Highway 1	--	25	55

SOURCE: Existing and Buildout Traffic Noise Calculations (Appendix G)

*Within Highway 101 noise corridor

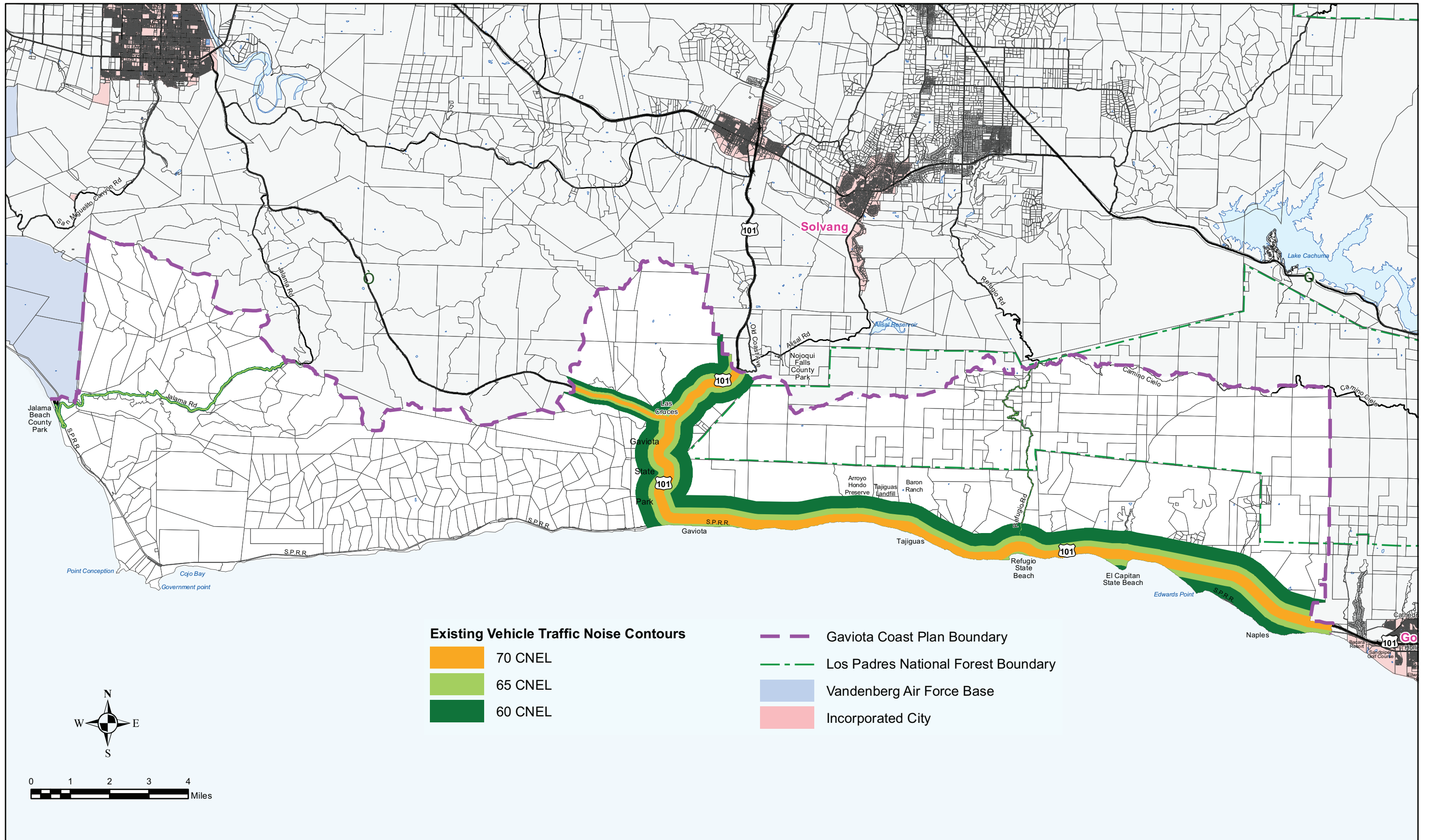


FIGURE 4.10-1 Gaviota Coast Plan – Existing Vehicle Traffic Noise Contours

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4.10.2 Regulatory Framework

4.10.2.1 County of Santa Barbara Comprehensive Plan

The purpose of the Noise Element within the County's Comprehensive Plan is to protect the public from noise that could jeopardize health and welfare. The Noise Element identifies major noise sources, estimates the extent of their impact and discusses potential methods of noise abatement. Specifically, the Element identifies maximum levels of noise exposure that are considered acceptable for sensitive land uses (e.g., residences, schools, and hospitals). The Comprehensive Plan contains policies and development standards that seek to restrict noise exposure of sensitive receptors to acceptable levels.

The County Environmental Thresholds and Guidelines Manual (Revised 2008) provides a policy framework compilation for Noise Control, as gathered from the Comprehensive Plan Noise Element and Community Plans within regions of the County. The following Comprehensive Plan policies are relevant to the Plan Area:

Noise Element Policy 1: In the planning of land use, 65 L_{dn} should be regarded as the maximum exterior noise exposure compatible with noise-sensitive uses unless noise mitigation features are included in project designs.

Noise Element Policy 5: Noise-sensitive uses proposed in areas where the Day-Night Average Sound Level is 65 L_{dn} or more should be designed so that interior noise levels attributable to exterior sources do not exceed 45 L_{dn} when doors and windows are closed. An analysis of the noise insulation effectiveness of proposed construction should be required, showing that the building design and construction specifications are adequate to meet the prescribed interior noise standard.

Noise Element Policy 6: Residential uses proposed in areas where the Day-Night Average Sound Level is 65 L_{dn} or more should be designed so that noise levels in exterior living spaces will be less than 65 L_{dn} . An analysis of proposed projects should be required, indicating the feasibility of noise barriers, site design, building orientation, etc., to meet the prescribed exterior noise standard.

Agricultural Element Policy I.E: The County shall recognize that the generation of noise, smoke, odor, and dust is a natural consequence of the normal agricultural practices provided that agriculturalists exercise reasonable measures to minimize such effects.

4.10.3 Impact Analysis

4.10.3.1 Thresholds of Significance and Methodology

The following impact analysis is based upon buildout traffic projections for the Plan and standards established by the County. The analysis is programmatic in nature and identifies general constraints to, and mitigation for, future development in accordance with buildout of the Plan.

CEQA Guidelines

According to CEQA Guidelines Appendix G, implementation of the Plan would have significant environmental impacts related to noise if it would:

- Expose 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;
- Expose persons to or generation of excessive groundborne vibration or groundborne noise levels;
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- Result in a substantial temporary or period increase in ambient noise levels in the project vicinity above levels existing without the project;
- 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, expose people residing or working in the project area to excessive noise levels; and/or
- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

County Environmental Thresholds

The analysis follows the noise criteria and policies contained in the County Environmental Thresholds and Guidelines Manual (2008). The project would have a significant noise impact if it would result in any of the following impacts:

- Expose exterior (outdoor) living areas in excess of 65 CNEL, or expose interior (indoor) noise levels in excess of 45 CNEL or more.
- Substantially increase the ambient noise levels for noise-sensitive receptors in adjoining areas, considered to be an increase of 5 dB, even if the exterior noise level would remain less than 65 CNEL, as determined on a case-by-case level.

- Noise from grading and construction activity proposed within 1,600 feet of sensitive receptors, including schools, residential development, commercial lodging facilities, hospitals or care facilities.

The thresholds listed above have been grouped under three impact thresholds. Impact NOS-1 addresses impacts from noise exposure, which includes exposure of persons to excessive noise levels and vibration. This analysis addresses the County's threshold related to outdoor and indoor noise levels. Impact NOS-2 addresses permanent increases in the ambient noise levels in the Plan Area and the County's threshold related to an increase of 5 dB. Impact NOS-3 addresses temporary increases of ambient noise levels due to construction near sensitive receivers. The Plan Area is outside of any adopted ALUCP AIA, including the Santa Barbara Municipal Airport AIA and Vandenberg AFB. The Plan Area also does not contain any private airstrips. Therefore, these two thresholds are not addressed in the analysis below.

4.10.3.2 Impact Determination and Mitigation Measures

Impacts

Impact NOS-1: Noise Exposure

Plan buildout is estimated to result in development of 167 additional single-family residences and 9 agricultural employee housing units within the Plan Area over the 20-year Plan horizon. Potential highway commercial development is limited to an approximately 2-acre site located east of Highway 101 at Las Cruces. Zoning ordinance amendments are also proposed that could encourage expansion of agricultural land uses and uses accessory and supportive of agriculture. The Gaviota Agricultural Tiered Permit Structure would allow small-scale uses with an over-the-counter or other staff issued permit. For example, aquaponics, composting, firewood processing and sales, agricultural processing, farmstands, and small-scale agricultural tourist activities such as camping and guest ranch/farmstay could be permitted if specified conditions and limitations are met.

The Plan Area includes areas located along Highway 101 and the Union Pacific Railroad that could exceed the maximum noise level allowed for sensitive land uses. Development of new noise-sensitive land uses could be affected by these sources. Noise exposure as a result of vehicle traffic noise, railroad noise, and interior noise would be limited due to the rural character of the Plan Area. As discussed below for vehicle traffic, railroad, and interior noise, impacts associated with interior noise would be less than significant. The Plan does not contain policies specific to noise exposure because existing Noise Element and Comprehensive Plan policies are sufficient to address noise exposure for future development during project level review. The future locations of potential residential units within the Plan Area are not in close proximity to major roadways or urban areas. In addition, the proposed Plan does not introduce new significant sources of excessive noise. Existing County Comprehensive Plan and Noise Element Policies would require future development to be constructed and designed to limit exterior and interior noise, and would be reviewed on a case-by-case basis.

Vehicle Traffic Noise

Traffic noise occurs adjacent to every roadway and is directly related to the traffic volume, speed, and mix of vehicles. For the studied freeways and local roadways, existing and future traffic volumes were obtained from the traffic analysis prepared for the Plan. Future volumes were calculated by applying an annual growth factor of 1.6 percent obtained from the Santa Barbara County Association of Governments (2004). This annual growth rate is specific to freeways in the region. It was conservatively applied to local roadways as well. Due to limited growth in the Plan Area, traffic growth rates on local roadways would be less than this. The results of the noise calculations from traffic are contained in Appendix G.

Future noise level contours were calculated for the Plan Area. Table 4.10-3 summarizes the future vehicle traffic noise contour distances and the existing noise contours are displayed on Figure 4-10-2. Calculation details are contained in Appendix G. For this program-level analysis, the topography was considered flat with no intervening terrain between sensitive land uses and roadways. Because of the agricultural open space and undeveloped nature of the Plan Area, the intervening terrain was assumed acoustically “soft.” Where they exist, buildings and other obstructions along the roadways would shield distant receivers from the traffic noise. Therefore, noise levels predicted in this assessment are to be used as a guide and do not specifically indicate that noise levels shown at a specific location would be incompatible with a proposed land use.

Roadway	Segment	Distance to (feet)		
		70 CNEL	65 CNEL	60 CNEL
Highway 1	West of Highway 101	88	190	410
Highway 101	Hollister Avenue to El Capitan State Beach Road	251	540	1,163
	El Capitan State Beach Road to Highway 1	243	524	1,128
	Highway 1 to Santa Rosa Road	208	449	967
Calle Real	East of Refugio Road*	--	16	64
Refugio Road	North of Calle Real	--	9	18
Jalama Road	West of Highway 1	--	30	64

SOURCE: Existing and Buildout Traffic Noise Calculations (Appendix G).

* Within Highway 101 noise corridor

Traffic noise levels associated with the proposed Plan would result in potentially significant impacts at noise-sensitive land uses proposed in areas where exterior noise levels would exceed 65 CNEL (see Table 4.10-3). However, as discussed, should these residential uses be located within the 65 CNEL contour for Plan Area roadways, they would be subject to the existing Comprehensive Plan policies associated with exterior noise and interior exposure and would be less than significant.

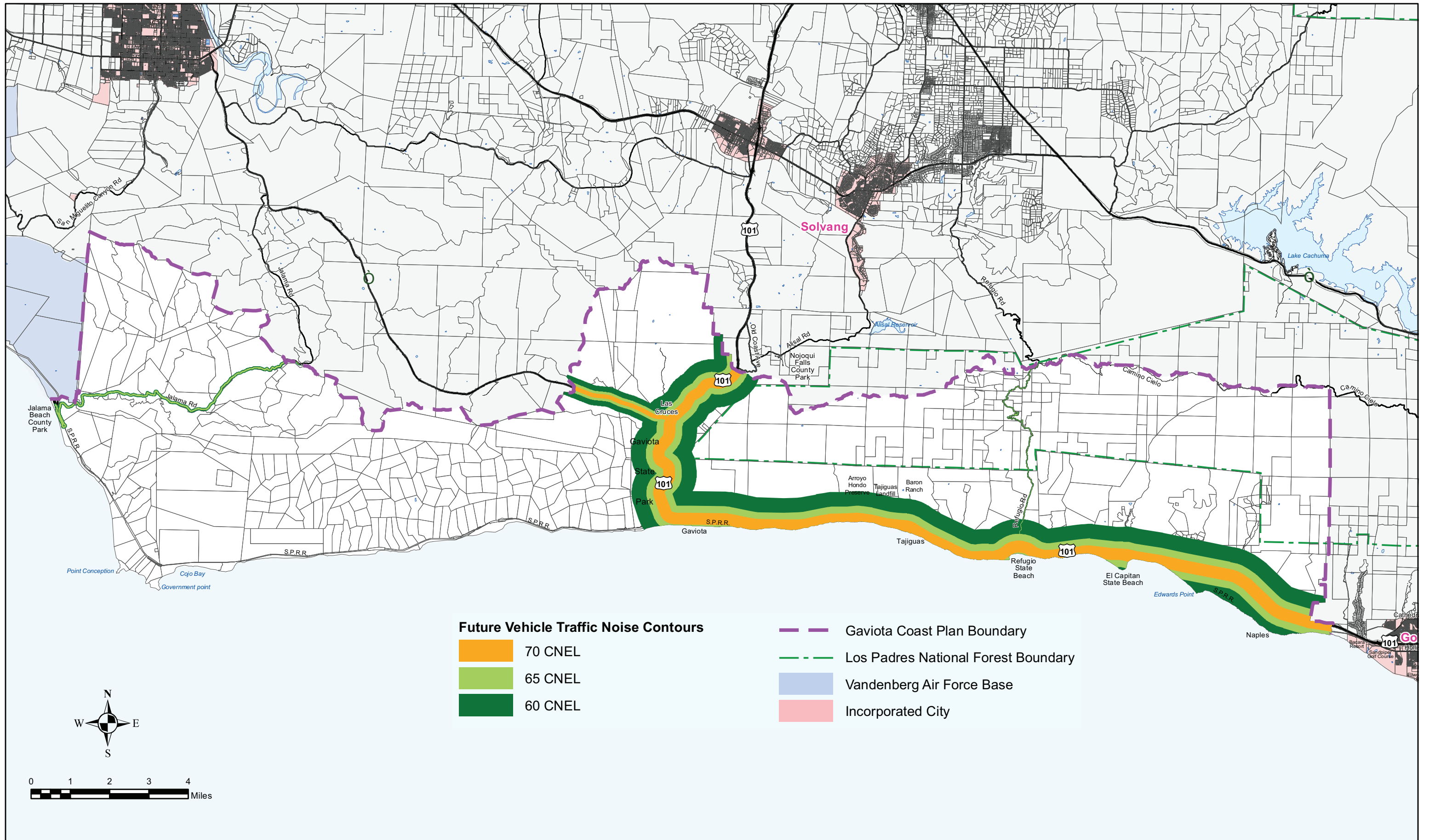


FIGURE 4.10-2 Gaviota Coast Plan – Future Vehicle Traffic Noise Contours

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Residential development in the Plan Area is broadly dispersed, with single-family homes located on large Agricultural zoned parcels. An exception is the small pocket of rural residential development at Arroyo Quemada (south of Highway 101 between Refugio Road and Tajiguas Landfill Road), and developed smaller agricultural parcels at El Capitan Ranch and the upper reaches of Refugio Road near West Camino Cielo. A total of approximately 234 existing single-family dwellings exist in the Plan Area. The proposed Plan does not alter existing development potential within the Plan Area. Areas within the Plan Area are discussed in terms of their potential exposure to vehicle traffic noise below. Analysis of potential noise impacts resulting from PRT Maps Amendments are discussed in Section 4.13.

Based on the past rate of growth and severe site constraints, growth in Hollister Ranch is anticipated to be 50 percent of the vacant lots at approximately 19 dwelling units over the next 20 years. This area is located well outside the 65 CNEL contour of all modeled roadways, and would not experience significant vehicle traffic noise. Based on the negligible past rate of development and ownership characteristics, growth in Cojo-Jalama is anticipated to be 10 percent of the legal lots at approximately 6 dwelling units over the next 20 years. Noise levels due to vehicle traffic on Jalama Road would not exceed 65 CNEL beyond 30 feet of the roadway centerline. Highway 101 is the dominant source of vehicle traffic noise in this area of Naples Township. New residential uses located within 540 feet of Highway 101 have the potential to be exposed to exterior noise levels exceeding 65 CNEL. However, policies in the Comprehensive Plan would reduce traffic noise exposure because they set standards for the siting of sensitive land uses. In accordance with Noise Element Policies 1, 5, and 6, residential uses would be designed so that noise levels in exterior living areas would not exceed 65 CNEL, and interior living areas would not exceed 45 CNEL. Future residential development located within the 65 CNEL contour for Highway 101 would be required to demonstrate that exterior noise levels would not exceed 65 CNEL and interior noise levels would not exceed 45 CNEL. Implementation of these policies would reduce impacts associated with exterior noise and interior exposure to less than significant. For these areas, noise levels in this area would be consistent with those associated with rural areas, and would be less than significant. The Plan would not result in a significant increase in traffic noise, and impacts to existing residential uses in this area would be less than significant as a result of Plan implementation (see also Impact NOS-2).

For the remaining Plan Area, the overall growth rate over the past 15 years is derived from permit history and estimated to be 71 residential dwelling units. In addition to primary residential units, the Plan land uses provide for nine agricultural employee housing second units. Future residential development located within the 65 CNEL contour for Highway 101 would be required to demonstrate that exterior noise levels would not exceed 65 CNEL and interior noise levels would not exceed 45 CNEL. Therefore, noise levels in the Plan Area would be consistent with those associated with rural areas, and would be less than significant.

Railroad Noise

As discussed above in Section 4.10.1.2 under Existing Noise Conditions, passenger trains and freight trains traverse the coastal area of the Gaviota Coast on a daily basis. Railway noise consists of noise from the train and emergency signaling devices. Trains are equipped with horns for use in emergencies and as a general audible warning to track workers and trespassers within the right-of-way as well as to pedestrians and motor vehicles at road grade crossings. Horns on the moving train combined with stationary bells at grade crossings can generate excessive noise levels that can affect noise sensitive receptors.

Maximum sound levels from passing trains at one hundred feet from the tracks reach 96 to 100 dB(A) L_{eq} and CNEL values are between 70 and 75 CNEL. In the Plan Area, noise levels are 60 CNEL or less beyond about 600 feet from the tracks (County of Santa Barbara 2009). Noise levels are 65 CNEL or less beyond 335 feet from the tracks. New residential uses located within 335 feet of the railroad tracks have the potential to be exposed to exterior noise levels exceeding 65 CNEL.

However, as previously discussed, policies in the Comprehensive Plan would reduce railroad noise exposure because they set standards for the siting of sensitive land uses. In accordance with Noise Element Policies 1, 5, and 6, residential uses would be designed so that noise levels in exterior living areas would not exceed 65 CNEL, and interior living areas would not exceed 45 CNEL. Future residential development located within 335 feet of the railroad tracks would be required to demonstrate that exterior noise levels would not exceed 65 CNEL and interior noise levels would not exceed 45 CNEL. Implementation of Comprehensive Plan policies would reduce impacts associated with exterior noise and interior exposure to less than significant.

Interior Noise

Typical modern residential construction can provide 20 dB(A) attenuation from exterior to interior locations with closed windows (Caltrans 2013). Thus, an exterior noise level of 65 CNEL at a building façade would typically be attenuated to 45 CNEL at interior locations. For new development proposed where exterior noise levels are projected to exceed 65 CNEL, interior noise levels could potentially exceed 45 CNEL. Comprehensive Plan Policy 5 requires that proposed buildings are designed in such a way that interior noise levels due to exterior noise sources would not exceed 45 CNEL. Future residential development located would be required to demonstrate that interior noise levels would not exceed 45 CNEL. Thus, impacts associated with interior noise would be less than significant.

Mitigation

Impacts would be less than significant and no mitigation would be required.

Residual Impacts

As impacts would be less than significant to noise exposure, no residual impacts would remain (Class III impact).

Impact NOS-2: Ambient Noise Level Increase

Given the limited land uses in the Plan Area along with the limited sources of stationary noise, traffic would be the main source of increases in ambient noise. However, implementation of the proposed Plan is expected to result in only a nominal increase in traffic. The majority of the proposed Plan components call for the preservation of agricultural and recreational uses, with little in the way of future development. However, there would be an increase in vehicle traffic on area roadways in the Plan Area due to regional growth in the vicinity. While this increase in traffic would not be a direct result of Plan implementation, the potential increase in noise is evaluated in this analysis due to its potential to affect land uses adjacent to Highways 101 and 1. A substantial noise increase is defined as an increase of 5 dB(A) or more even if the exterior noise level would remain less than 65 CNEL as stated in the County Environmental Thresholds and Guidelines Manual. For reference, a doubling in traffic volumes results in a 3 dB(A) increase in noise levels.

Existing traffic volumes were obtained from Caltrans and the County and are contained in Appendix G. Future volumes were calculated by applying an annual regional growth factor of 1.6 percent obtained from the Santa Barbara County Association of Governments (2004), as discussed under Impact NOS-1 above. Table 4.10-4 presents the existing and anticipated buildout average daily traffic volumes for the Plan. Traffic noise impacts were evaluated based on the calculated change in noise levels due to the increase or decrease in traffic volumes from the existing condition.

Roadway	Segment	Existing Volume	Buildout (2035) Volume	Change in dB
Highway 1	West of Highway 101	6,600	8,378	1.0
Highway 101	Hollister Avenue to El Capitan State Beach Road	31,500	39,987	1.0
	El Capitan State Beach Road to Highway 1	30,200	38,337	1.0
	Highway 1 to Santa Rosa Road	23,700	30,086	1.0
Calle Real	East of Refugio Road	218	277	1.0
Refugio Road	North of Calle Real	193	245	1.0
Jalama Road	West of Highway 1	569	722	1.0

SOURCE: Existing and Buildout Traffic Noise Calculations (Appendix G)

As shown, noise levels would increase by 1.0 dB(A) as a result of regional growth. As discussed previously, the average human ear can barely perceive changes of 3 dB(A), increase or decrease, and a change of 5 dB(A) is readily perceptible. As all of the Plan Area roadways would experience less than a 3 dB(A) change as a result of proposed Plan buildout, there would be no perceptible change in ambient noise levels. Buildout of the proposed Plan would not result in a noise increase of 5 dB(A) or greater adjacent to the studied roadways. Thus, impacts associated with the increase in ambient noise levels for noise-sensitive receptors would be less than significant. As an increase in ambient noise levels from transportation sources would not be perceptible, no additional Plan policies or standards would be required to minimize impacts.

Mitigation

Impacts would be less than significant through compliance with existing policies and regulations, therefore, no mitigation would be required.

Residual Impacts

As impacts would be less than significant for ambient noise levels to noise-sensitive receptors, no residual impacts would remain (Class III impact).

Impact NOS-3: Construction Noise

Construction noise typically occurs intermittently and varies depending upon the nature or phase of construction (e.g., demolition/land clearing, grading and excavation, and erection of structures). Construction noise in any one particular area would be temporary and short-term and would include noise from activities such as site preparation, truck hauling of material, pouring of concrete, and use of power tools. Noise would also be generated by construction equipment, including earthmovers, material handlers, and portable generators, which could reach high levels for brief periods.

For typical large-scale construction activities, the grading phase tends to involve the most equipment. The noisiest equipment types operating at construction sites typically range from 88 to 95 dB(A) maximum sound level at 50 feet. Typical operating cycles may involve 2 minutes of full power, followed by 3 or 4 minutes at lower settings. Average noise levels from the center of construction sites typically range from approximately 65 to 83 dB(A) L_{eq} at 50 feet, depending on the activities performed. According to the County Environmental Thresholds, “noise from grading and construction activity proposed within 1,600 feet of sensitive receptors, including schools, residential development, commercial lodging facilities, hospitals or care facilities, would generally result in a potentially significant impact.”

However, the proposed Plan does not alter existing development potential within the Plan Area and there would be no large-scale construction activities. Analysis of potential noise impacts from construction associated with PRT Maps Amendments are discussed in Section 4.13. Proposed Plan buildout is estimated to result in development of 167 additional single-family

residences and 9 agricultural employee housing units within the Plan Area over the 20-year Plan horizon. The Plan Area is dominated by agricultural, mountainous areas, and recreation/open space uses. Residential development is broadly dispersed with the exception of a small pocket of rural residential development at Arroyo Quemada, and developed smaller agricultural parcels at El Capitan Ranch and the upper reaches of Refugio Road near West Camino Cielo. Due to the rural nature of the Plan Area, it is unlikely that any construction would occur within 1,600 feet from a sensitive receptor. Additionally, potential construction activities would not include large scale grading activities that would require the use of heavy grading equipment. Maximum noise levels due to the construction of largely dispersed single family homes would be less than the maximum construction noise levels discussed above.

Due to the rural nature of the Plan Area and the limited potential for future development, and with enforcement of the Santa Barbara County Municipal Code, noise impacts associated with construction would be less than significant. Existing code requirements limiting construction noise to daytime hours and avoiding construction at times when noise levels are lower and receivers are more sensitive to increases in noise. No additional Plan policies or standards would be required to minimize impacts.

Mitigation

Impacts regarding noise associated with implementation of the Plan would be less than significant and no mitigation would be required.

Residual Impacts

As noise impacts would be less than significant, no residual impacts would remain (Class III impact).

4.10.4 Cumulative Impacts Analysis

Impact

Noise Exposure

The proposed Plan would not alter existing development potential within the Plan Area; however, proposed Plan buildout would result in additional single family residences and agricultural employee housing units. Implementation of the Plan is expected to result in only a nominal increase in traffic. However, there would be an increase in vehicle traffic on Highways 101 and 1 in the Plan Area due to regional growth in the vicinity. As discussed under Impact NOS-2, increases in traffic noise levels adjacent to area roadways due to regional growth to the year 2035 would not exceed 1 dB(A) and would not be perceptible. Thus, noise exposure impacts would be less than significant. The 2035 noise level estimates are adequate to account for the noise generation of anticipated cumulative growth, as identified in Table 3-1a and 3-1b. As a result, cumulative noise exposure in the Plan Area would be less than significant. The

incremental exposure of sensitive receptors to increased vehicular noise levels along roadways in the Plan would be cumulatively less than significant. Additionally, The Comprehensive Plan contains policies and development standards that seek to restrict noise exposure of sensitive receptors to acceptable levels (see Section 4.10.2.1). These policies would ensure residential uses along roadways are not exposed to noise levels from transportation noise sources in excess of the compatibility standards.

Ambient Noise Level Increase

The future traffic volumes presented in Table 4.10-3 account for cumulative regional growth. As shown in Table 4.10-3, increases in traffic noise adjacent to the studied roadways would not exceed 1 dB(A), which is not a perceptible increase in noise. Thus, impacts associated with the cumulative increase in ambient noise levels for noise-sensitive receptors would be less than significant.

Construction Noise

Cumulatively considerable noise impacts from construction activities would not occur due to the rural nature of the Plan Area, limited development potential, and likelihood that there is ample distance between construction sites and sensitive receptors to ensure noise levels are not significant. For the same reasons, there is a very low potential for multiple active construction sites to be located in proximity to each other, and would not result in a cumulative construction noise impact. At the Plan level, construction site locations cannot be identified; however, future projects would be required to comply with the Santa Barbara County Code and Comprehensive Plan policies which would ensure cumulative noise impacts associated with construction would be less than significant.

Mitigation

Existing Comprehensive Plan policies and the County of Santa Barbara Code provisions would be implemented to reduce noise exposure from transportation noise sources and construction activities. With these measures, cumulative impacts would be less than significant.

Residual Impacts

As cumulative noise impacts would be less than significant, no residual impacts would remain (Class III impact).