2.11 Noise

This section evaluates the potential impacts to the ambient noise environment within the vicinity of the PSR Analysis Areas and the former CGSP Area, and analyzes the potential effects of the Proposed Project on these conditions. This section also examines the sources of noise in relation to noise sensitive land uses, and describes relevant local noise standards and guidelines. The discussion of the existing noise resources, policies, and regulations provided below is based on the County of San Diego General Plan (County 2011a), County of San Diego Guidelines for Determining Significance Noise (DPLU 2009a), San Diego County PSR General Plan Update Noise Technical Report (Harris 2016, Appendix D to this SEIR), and additional sources as cited throughout the document.

A summary of the noise impacts identified in Section 2.11.3 is provided below.

Noise Summary of Impacts

Issue Topic	Project Direct Impact	Cumulative Impact	Impact After Mitigation
Excessive Noise Levels	Potentially significant	Potentially significant	Less than significant
Excessive Groundborne Vibration	Potentially significant	Less than significant	Less than significant
Permanent Increase in Ambient Noise Levels	Potentially significant	Potentially significant	Significant and unavoidable
Temporary Increase in Ambient Noise Levels	Potentially significant	Less than significant	Less than significant
Excessive Noise Exposure from a Public or Private Airport	Less than significant	Less than significant	Less than significant

2.11.1 Existing Conditions

Section 2.11.1 of the 2011 PEIR included a discussion of existing conditions related to ambient noise conditions in the unincorporated County. Based on a review of aerial photographs and land use information provided by the County (County 2017), the noise environment described in the 2011 PEIR for the PSR Analysis Areas is generally the same as 2016 conditions, because land uses are generally the same, and is hereby included by reference. As described in Section 2.12 (Population and Housing) of this SEIR, some growth has occurred in the planning areas that contain the PSR Analysis Areas, particularly Fallbrook and North County Metro. Therefore, the 2011 PEIR conditions represent a conservative baseline for comparison of potential future noise levels. Additionally, as described in Section 1.7.1 (Environmental Setting) of this SEIR, the baseline existing conditions for roadway noise levels are based on the project traffic analysis, which has been updated to reflect the increase in regional traffic through 2014 (Chen Ryan 2016, 2017; see Appendix E of this SEIR). The following section generally describes noise sources in the vicinity of the PSR Analysis Areas and the former CGSP Area, including transportation and non-transportation sources. This section also includes a description of noise terminology used in this section.

2.11.1.1 Characteristics of Noise and Vibration

Fundamentals of Noise

Noise is typically defined as unwanted sound. The main characteristics of sound are intensity, frequency and duration. The decibel (dB) is the typical measurement of sound intensity. A sound

level of 0 dB approximates the threshold of hearing for people. The average person can perceive a change of +/-3 dB. A change of +/-5 dB is readily perceptible and a change of +10 dB is perceived as twice as loud. Noise can have both human health and quality of life effects. At 130 to 140 dB, sound becomes extremely painful to the average person. Data show that long exposure to noise levels exceeding 85 dB can result in hearing loss and other health-related problems. The community noise environment is normally unacceptable for residential sites that are exposed to noise where the day-night average sound level (DNL) exceeds 75 dB. From a quality of life standpoint, noise can interfere with speech, disturb sleep and cause annoyance. Studies on the relationship between noise exposure and percentage of community highly annoyed by noise demonstrate that approximately four percent of a community is highly annoyed by community noise levels equivalent to 55 dB Community Noise Equivalent Level (CNEL), and about fourteen percent of a community can by highly annoyed by community noise levels equivalent to 65 dB CNEL. Additionally, an increase in the ambient or periodic noise level can cause quality of life impacts even when the absolute noise level does not exceed 55-65 dB CNEL. A study by the International Standard Organization found that sound level changes of 5-10 dB generated sporadic complaints from existing residents. Changes of 10 dB or more generated widespread complaints.

Frequency of sound is measured in hertz or cycles per second. The generally accepted range of human hearing ranges from approximately a low of 20 hertz to a high of 20,000 hertz. Some frequencies are more noticeable and unpleasant than others.

Environmental noise is comprised of infinite combinations of sound intensities of varying frequency and duration. The following weighted and averaging terms are used to reasonably characterize environmental noise:

A-weighted Sound Pressure Level (dB or dBA) – Some frequencies of noise are more noticeable than others. To compensate for this fact, different sound frequencies are weighted more heavily (A-weighted) so that the response of the average human ear is simulated.

Equivalent Sound Level (L_{eq}) – Environmental noise often fluctuates over time. To be able to describe this in a practicable manner the L_{eq} was developed. L_{eq} is the A-weighted steady sound level that contains the same total acoustical energy as the actual fluctuating sound level.

One-Hour Equivalent Noise Level ($L_{eq(h)}$) – A one-hour equivalent noise level is a measurement of noise intensity, which is the equivalent sound level (L_{eq}) over a one-hour averaging period.

Community Noise Equivalent Level (CNEL) – This term applies weights to noise during evening and nighttime hours to compensate for the increased sensitivity of people to noise at those times. CNEL is the equivalent sound level for a 24-hour period with a +5 dB weighting applied to all sound occurring between 7:00 p.m. and 10:00 p.m. and a +10 dB weighting applied to all sound occurring between 10:00 p.m. and 7:00 a.m. CNEL is expressed in the A-weighting frequency scale. In the case of airport or aircraft noise, CNEL is often expressed as a 365-day average.

Day-Night Average Sound Level (DNL or L_{dn}) – This term is similar to CNEL except it does not apply any weights to the evening hours to compensate for the increased sensitivity to noise. DNL is a 24-hour weighted average and uses an A-weighted frequency scale. DNL is normally within 1 dB of CNEL using the same 24-hour data.

Impulsive Noise – Any single noise event or a series of single noise events, which causes a high peak noise level of short duration (one second or less), measured at a specific location. Examples include, but are not limited to, a gunshot, an explosion or a noise generated by construction equipment.

Maximum Sound Level (L_{MAX}) – The highest sound level reached when measuring noise with a sound level meter using the A-weighted network and slow time weighting. The maximum sound level is equivalent to the industry standard known as L_{MAX}.

Noise Sensitive Land Uses

Noise Sensitive Land Uses (NSLU) are land uses where an excessive amount of noise would interfere with normal operations or activities. An NSLU is any residence, hospital, school, hotel, resort, library, nature preserve, or similar facility where quiet is an important attribute of the environment.

Groundborne Vibration

Groundborne vibration propagates from a source through the ground to adjacent receptors by surface waves which are transmitted through solid material. The frequency of a vibrating object, measured in hertz, describes how rapidly it is oscillating. The rumbling sound caused by the vibration of building structures is referred to as groundborne noise.

Vibration Sensitive Land Uses

Vibration sensitive land uses include buildings where vibration would interfere with operations within the building, such as vibration-sensitive research and manufacturing, hospitals with vibration-sensitive equipment, and university research operations. Residential uses are also sensitive to excessive levels of vibration of either a regular or intermittent nature.

2.11.1.2 Ambient Noise Setting

Environmental Setting

Unincorporated San Diego County is characterized as a predominantly rural environment with low-density development that contributes significantly to the perceived quality of life and the peace and tranquility that exists within it. Major sources of noise in the unincorporated area include transportation and non-transportation related activities, as discussed below.

A community noise survey was conducted during February and March of 2008 for the 2011 PEIR Noise Technical Report (2009 NTR) (County 2011b) to establish baseline ambient noise levels for transportation and non-transportation noise generators throughout the County. Land uses and associated noise levels in the vicinity of measurement locations in the PSR Analysis Areas have remained largely unchanged since 2008. Therefore, the 2008 community noise survey is considered representative of existing conditions for the purposes of this analysis.

A total of 44 short-term (15-minute) measurements were conducted to provide a “snapshot” of baseline noise levels at a given point in time. Sample sites were selected to represent the varied land uses within the County, including roadways, agricultural areas, high density and low density residential, schools, hospitals and parks. Two 24-hour noise measurements were also conducted as part of the community noise survey to sample the fluctuation in noise levels that occur throughout the day. One 24-hour sample site was located near I-15 and the other near Wildcat Canyon Road, which provides access to a casino and was determined to be a representative heavily traveled roadway. The 24-hour noise measurement at I-15 found a CNEL of 66 dBA and

24-hour L_{eq} of 62 dBA, while the 24-hour noise measurement at Wildcat Canyon Road found a CNEL of 73 dBA and 24-hour L_{eq} of 67 dBA.

All nine of the CPAs and Subregions with proposed PSR Analysis Areas had at least one noise sample site. Figure 1 of the 2009 NTR, Community Noise Survey Locations, shows the location of the short-term measurement locations (County 2011b). Results of the short-term noise measurements are shown in Table 2.11-1. In general, freeways and highways, major arterials, and the SPRINTER railroad were the land use categories where the highest noise levels were measured. Lower short-term noise levels were measured near residential areas, the resort, and schools.

Transportation Noise Generators

The most common source of noise in the rural and semi-rural environment in unincorporated San Diego County is transportation related. The following sections describe existing noise from roadways, airports, and railroads.

Roadways

Traffic noise sources include automobiles, trucks, and other motor vehicles. Traffic on San Diego County roadways is the most substantial and pervasive source of noise in San Diego County. There are several key factors associated with roadway or traffic noise, including traffic volumes, the speed of the traffic, the type or "mix" of vehicles using a particular roadway, and pavement conditions. The roadway network in the unincorporated County consists of State highways, interstate highways, regional arterials, local public roads, and private roads. Highways and arterials generally accommodate high speed, high volume traffic, and are designed to provide for the movement of people and goods between and within communities in the County. The interstate highways in the unincorporated County near the Proposed Project include I-15 and I-8. I-15 traverses the western portion of the County from north to south, while I-8 crosses the southern portion of the County from west to east. Major state highways include SR-76, SR-78, SR-79, and SR-94. SR-94 is in south unincorporated County, while SR-76, SR-78, and SR-79 all serve the eastern portion of unincorporated County. Examples of major arterials include Tecate Road in Mountain Empire Subregion and South Santa Fe Avenue in North County Metro Subregion.

Local roads serve lower speed, lower volume traffic and provide access to local residential neighborhoods and commercial and industrial areas in each of the communities throughout the unincorporated County. Local roads also feed traffic onto the larger highways and arterials. Examples of local roads are Gopher Canyon Road in Bonsall CPA and Olive Hill Road in Fallbrook CPA. Private roads are generally not available to the public and serve a limited number of travelers. Examples of private roads are private driveways or maintenance roads.

In the General Plan Noise Element, the County identifies existing and future roadway noise contours in Figures N-1 and N-2 (County 2011a). Existing roadway noise contours were determined from 2007 traffic levels and expressed in terms of CNEL. As shown in Figure 2.11-1 and based on GIS data provided by the County of San Diego, portions of PSR Analysis Areas BO18+, DS8, DS24, FB2+, FB17, FB19+, NC38+, PP30, SD15, VC7+, VC57+, and the former CGSP Area are located within a General Plan noise contour, and traffic noise levels in these areas are estimated to be 55 dBA CNEL or higher. Table 2.11-2 provides the acreages within each PSR Analysis Area located in a designated roadway noise contour. PSR Analysis Areas CD14, FB21+, ME26, ME30A, NC3A, NC18A, NC22, NC37, VC51, and VC67+ are not located within a noise contour. Overall traffic noise levels in these areas are generally lower due to the absence of freeways and major arterials; however, as demonstrated by the community noise measurements summarized in Table 2.11-1, traffic noise is experienced throughout the PSR

Analysis Areas and the former CGSP Area, including along roadways that do not have designated contours.

Airports

Another transportation-related noise source across the County is aviation operation. Noise generated from aviation operations is concentrated around airport buildings, runways, and along approach and departure routes. Six public airports are in the unincorporated County, two of which are near PSR Analysis Areas: Borrego Valley Airport near DS8 and DS24 and Fallbrook Community Airpark near FB17. The County also owns Gillespie Field in the City of El Cajon near Crest-Dehesa CPA, approximately 5 miles from PSR Analysis Area CD14. Additionally, 29 smaller private-use airports are scattered throughout the unincorporated County, two of which are within two miles of a PSR Analysis Area: Blackinton airstrip located 1.5 miles from PSR Analysis Area VC7+, and Hoag heliport located 0.5 mile from PSR Analysis Area VC57+. Additionally, a private airstrip is in Mountain Empire Subregion near, but more than two miles from PSR Analysis Areas ME26 and ME30A; Lake Wohlford airstrip in North County Metro Subregion is near PSR Analysis Areas NC3A, NC18A, NC57+, and NC67; and Pauma Valley Airpark in Pala-Pauma Valley Subregion is near PSR Analysis Area PP30. The McClellan-Palomar Airport is approximately five miles from PSR Analysis Area SD15 and approximately six miles from PSR Analysis Area NC22.

Figure 2.11-2 presents the location of airports in San Diego County and either their published noise contours or a two-mile noise contour approximation. As shown in the figure, no airport noise contours overlap a PSR Analysis Area or the former CGSP Area. As described above, two PSR Study Areas are located within two miles of a private airstrip.

Railroads

The extent of the noise generated from passenger and freight trains depend on many factors, including the frequency of train operations, the number of railway cars, the type of engine, and the number of grade crossings that require warning bells or horns. In addition, train pass-by events may cause adjacent land uses to be affected by groundborne vibration.

Only one railroad line is located near any PSR Analysis Area, the San Diego & Arizona Eastern Railway Desert Line (Desert Line). The Desert Line is located less than three miles from PSR Analysis Area ME26 and bisects PSR Analysis Area ME30A. It is the primary freight rail line that traverses the unincorporated County and has been operating intermittently since 1906. The Desert Line has been out of operation since 2008 due to the need for bridge and tunnel repairs. Pacific Imperial Railroad is the operator for freight services on the Desert Line between the International Border and Plaster City, and was granted the long-term contract for freight operations on the Desert Line in December 2012. Since then, Pacific Imperial Railroad has submitted reconstruction plans, but the future of operations on the Desert Line remain uncertain (PIR 2015).

Noise from the Desert Line was analyzed as part of the Las Aldeas project for the City of El Centro in October 2006. The Las Aldeas Specific Plan EIR found that, as of 2006, existing traffic conditions on the line consisted of four trains per day in each direction with a typical train length of 15 to 30 cars and a typical speed of 20 mph. It expected the recent opening of the Carrizo Gorge Railroad line east of Plaster City to induce a considerable increase in freight traffic, up to a total of eight trains per day in each direction within the next 10 years. The Noise Technical report prepared for the Las Aldeas project included estimation of train noise impacts within the Las Aldeas development, assuming a future condition of eight trains per day in each direction. The closest row of homes was 170 feet away from the tracks. At this distance, without mitigation, the

CNEL was found to be 65 dBA and the L_{MAX} (representing horn blasts) was found to be 103 dBA. Models indicated the horn blasts noise impact zone at an at-grade crossing would extend 200 feet to the north and south of the track (Jones & Stokes 2009).

The 2009 NTR (County 2011b) calculated the acreages of potential NSLU that would occur within the 60 dBA L_{dn} contour of railroads. One planning area that contains a PSR Analysis Area, Mountain Empire, was identified within a railroad contour. A total of 1,561 acres of land uses in the Mountain Empire area that were proposed to accommodate NSLU were expected to occur within the 60 dBA L_{dn} contour of the Desert Line as a result of implementation of the General Plan.

Non-Transportation Noise Generators

Non-transportation related noise generators are commonly called "stationary," "fixed," "area," or "point" sources of noise. Industrial processing, mechanical equipment, pumping stations, and heating, ventilating, and air conditioning equipment are examples of fixed location, non-transportation noise sources within the San Diego County. Some non-transportation sources are not stationary but are typically assessed as point or area sources due to the limited area in which they operate, such as truck deliveries, agricultural field machinery, and mining equipment. Existing non-transportation noise sources that affect the PSR Analysis Areas are described below.

Noise generated by industrial and commercial operations, maintenance, manufacturing, truck traffic (loading docks), and warehousing activities can affect surrounding NSLU. According to the 2009 NTR, industrial and commercial operations are located in Fallbrook CPA, Mountain Empire Subregion, North County Metro Subregion, and Pala-Pauma Valley Subregion. However, the only PSR Analysis Areas within the vicinity of existing industrial and commercial operations are VC57+ and VC67 in the southern portion of Valley Center CPA.

Heavy equipment used in quarry and mining activities and blasting operations may generate noise levels that would expose surrounding land uses to noise levels exceeding noise standards. Additionally, off-site noise may be generated by the transportation of materials to and from the mining facility. Groundborne vibrations from blasting, manufacturing, and other extractive operations may also affect vibration-sensitive land uses. Extractive uses are located in the Mountain Empire Subregion, Desert Subregion, Crest-Dehesa Subregion, North County Metro Subregion, and Pala-Pauma Valley Subregion. While mining operations occur in these subregions that contain PSR Analysis Areas, the mine sites themselves are not in close proximity.

Noise perceived as disruptive by residents in proximity to existing agricultural operations may result from the operation of agricultural machinery in the evening or early morning hours when many residents desire a quiet environment. In addition, operation of exterior exhaust and cooling system equipment typically used in greenhouse operations can be a source of noise that may affect surrounding land uses. It is estimated that of the approximately 2.7 million acres of County land, 366,500 acres are in active agricultural use. The proposed PSR Analysis Areas in Bonsall, Fallbrook, North County Metro, Valley Center and former CGSP Area either have existing on-site agricultural operations or are located adjacent to existing operations.

Temporary and/or Nuisance Noise

Intermittent or temporary neighborhood noise from amplified music, public address systems, barking dogs, landscape maintenance, stand-by power generators, and construction activities are disturbing to residents but are difficult to attenuate and control. The most recent published noise complaint statistics by community in the County are shown in Table 2.11-3. This table shows that the majority (approximately 72 percent) of noise complaints in the unincorporated County are associated with dogs. Roosters and machinery are also common sources of noise complaints,

accounting for approximately ten percent and seven percent of complaints, respectively. The least common source of noise complaints in CPAs within the PSR Analysis Areas was construction, accounting for approximately two percent of noise complaints. Noise complaints occur more frequently in areas that are relatively developed, such as Crest-Dehesa and San Dieguito, and heavily agricultural areas, such as Fallbrook and Valley Center. Note that the table only includes complaints that were received by the County Office of Noise Control. Other noise complaints may have been reported to the San Diego County Sheriff's Department or were not reported.

2.11.2 Regulatory Framework

Section 2.11.2 of the 2011 PEIR describes the Regulatory Framework related to noise and is hereby incorporated by reference. Applicable federal regulations discussed include the FAA Standards, Federal Highway Administration (FHWA) Standards, Federal Transit Administration (FTA) Standards, Federal Railroad Administration Standards, U.S. Office of Surface Mining Reclamation and Enforcement Standards, California Noise Control Act of 1973, California Noise Insulation Standards (CCR Title 24), County of San Diego General Plan Noise Element, San Diego County Code of Regulatory Ordinances (Title 3, Division 6, Chapter 4, Sections 36.401-36.435, Noise Ordinance), and San Diego County Code of Regulatory Ordinances (Title 6, Division 3, Chapter 4, Sections 63.401-63.402, Agricultural Enterprise and Consumer Information Ordinance). The regulatory framework discussion in the 2011 PEIR as it pertains to noise has not changed since adoption of the General Plan in August 2011. Therefore, the regulatory framework information is not repeated here.

2.11.3 Analysis of Project Impacts and Determination of Significance

2.11.3.1 Issue 1: Excessive Noise Levels

Guidelines for Determination of Significance

Based on the County of San Diego Guidelines for Determining Significance Noise (DPLU 2009a), development under the Proposed Project would be considered to have a significant impact if it would result in the exposure of any on site or off site, existing or reasonably foreseeable future NSLU to exterior or interior noise (including noise generated from the project, together with noise from roads [existing and planned roadways], railroads, airports, heliports and all other noise sources) in excess of any of the following:

- For exterior locations:
  (a) 60 dB (CNEL); or
  (b) An increase of 10 dBA CNEL over pre-existing noise in areas where the ambient noise level is 49 dBA CNEL or less.

  In the case of single-family residential detached NSLU, exterior noise shall be measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum area:
  - Net lot area up to 4,000 square feet: 400 square feet
  - Net lot area 4,000 square feet to 10 acres: 10 percent of net lot area
  - Net lot area over 10 acres: 1 acre

  For all other projects, exterior noise shall be measured at all exterior areas provided for group or private usable open space.

- For interior locations: 45 dB (CNEL) except for the following cases:
  (a) Rooms which are usually occupied only a part of the day (schools, libraries, or similar facilities), the interior one-hour average sound level due to noise outside should not exceed 50 dBA.
  (b) Corridors, hallways, stairwells, closets, bathrooms, or any room with a volume less than 490 cubic feet.

The General Plan Noise Element defines noise exposure criteria (County 2011a). The criteria specify acceptable noise exposure ranges for various land uses throughout the County. The Noise Compatibility Guidelines and Noise Standards from the General Plan Noise Element, shown in Table 2.11-4 and Table 2.11-5, are intended to be flexible enough to apply to a range of projects and environments.

Impact Analysis

NSLU are uses where an excessive amount of noise would interfere with normal operations or activities and where a high degree of noise control may be necessary. Examples include schools, hospitals, and residential areas. Recreational areas may be considered noise-sensitive, where quiet and solitude are an important aspect of the specific recreational experience. The Noise Compatibility Guidelines in Table 2.11-4 establish the noise levels that are acceptable for the proposed PSR Analysis Area and the former CGSP Area land use designations, based on the noise sensitivity of the land use.

Roadways

Noise level contours are used as a guide for minimizing the exposure of community residents to noise. Noise contours represent lines of equal noise exposure, just as the lines on a weather map indicate equal temperature or atmospheric pressure. Contours are used to provide a general visualization of sound levels and should not be considered as absolute lines of demarcation. Noise contours for roadway noise sources in the County were developed for existing conditions (2007) and General Plan Update (Referral Map) conditions as part of the 2009 NTR and are expressed as CNEL values. Traffic noise levels were predicted using the FHWA Traffic Noise Model Version 2.5 (TNM 2.5). The contours represent conservative noise levels that do not account for any noise-attenuating features of the topography. The purpose of the contour map is to identify areas where noise may be a potential concern. The modeling completed for the Proposed Project, described in Section 2.11.3.3, indicates that there would be no significant change in future noise level contour distances with implementation of the Proposed Project compared to conditions under buildout of the adopted General Plan. Therefore, roadway noise contours from the General Plan Noise Element (see Figure N-2) and GIS data provided by the County of San Diego (County 2017) were used to estimate the acreage of proposed PSR Analysis Area and former CGSP Area land uses within future (2030) roadway noise contours.

The Noise Element contour maps identity 55 dBA CNEL, 60 dBA CNEL, 65 dBA CNEL, 70 dBA CNEL, and 75 dBA CNEL noise contours. Table 2.11-4 identifies land uses that would be acceptable within each contour. As shown in this table, the 55 dBA CNEL noise contour would be acceptable for all proposed land uses. According to the General Plan Noise Element, single family residential use, or semi-rural or rural residential development, would not be compatible with noise levels greater than 60 dBA CNEL; therefore, the 60 dBA CNEL noise contour is the appropriate noise contour for the analysis of impacts to proposed single-family residential land uses. Residential – mixed use land uses would be compatible with noise levels up to 65 dBA CNEL, and conditionally acceptable up to 75 dBA. Commercial land uses are compatible with noise levels up to 70 dBA, and conditionally acceptable up to 75 dBA. As noted in Table 2.11-4, land uses that

are only in use during the day, such as commercial developments, would typically use an hourly standard to determine noise compatibility. Therefore, the weighted CNEL contours represent a conservative estimate of impacts to these land uses.

As shown in Figure 2.11-3, the areas near freeways and major arterials may be exposed to noise levels that equal or exceed noise compatibility guidelines. The contour with the greatest amount of potential impacts is the 60 dBA CNEL contour because this contour encompasses the largest area. The 75 dBA CNEL is the contour with the fewest potential impacts because this contour encompasses only land very close to the roadways. Table 2.11-6 provides the acreages of land uses that would be accommodated within PSR Analysis Areas that may be exposed to noise levels that exceed the noise compatibility guidelines.

In 2030, the PSR Analysis Areas would accommodate development of 1,237 acres of land uses that potentially exceed the noise level deemed as "Acceptable" in the noise compatibility guidelines. As shown in Table 2.11-6, the planning area with the greatest amount of acreage, 454 acres, within an impact area is the Bonsall CPA, which is traversed by I-15. The Valley Center CPA has a total of 237 acres within a potential impact area. The Valley Center CPA is also traversed by I-15. This total is a conservative estimate, because it includes both existing and future development and does not consider any noise attenuation that may have been incorporated into the development to reduce exterior noise levels to an acceptable level. As shown in Table 2.11-6, a potentially significant impact to NSLU, specifically new rural and semi-rural residential uses, would have the potential to occur as a result of vehicular noise exposure in the proposed PSR Analysis Areas.

Railroads

The relevant railroad line to this analysis is the Desert Line, which extends though the Mountain Empire Subregion. As described above in Section 2.11.1, the noise technical report for the Las Aldeas project determined that the noise level at 170 feet from the Desert Line freight railroad under future operations would be 65 dBA CNEL and the noise impact would extend 200 feet to the north and south of the track (Jones & Stokes 2009). This analysis provides the most recent, relevant study of railroad noise impacts on NSLU from the Desert Line. This analysis is conservative for the Proposed Project, because it assumes that the Desert Line will become operational in the future with a higher number of trains per day compared to previous operations.

PSR Analysis Area ME30A is located adjacent to the Desert Line. According to the General Plan Noise Element Noise Compatibility Guidelines, single family residential use or semi-rural or rural residential development would not be compatible with noise levels greater than 60 dBA CNEL. As such, noise levels in PSR Analysis Area ME30A would have the potential exposure to railway noise levels in excess of the acceptable noise compatibility standard so a potentially significant impact would occur.

Extractive Industries

Heavy equipment used in quarry and mining activities and blasting operations may generate noise levels that exceed County noise standards and expose surrounding land uses to noise levels exceeding noise standards. Additionally, off-site noise may be generated by the transportation of materials to and from the mining facility (County 2011b). Typical noise levels from common extraction activity equipment are provided in Table 2.11-7. Groundborne vibrations from blasting, manufacturing, and other extractive operations may also affect vibration-sensitive land uses, as discussed in Section 2.11.3.2.

According to Section 2.10 (Minerals) of the 2011 PEIR (County 2011b), a general noise setback area of approximately 1,300 feet is an adequate distance for most extractive operations to avoid

exceedance of allowable noise levels. At this distance, typical heavy equipment noise levels of 75 to 91 dBA would attenuate to below the Noise Ordinance standard of 50 dBA for daytime residential land use. None of the PSR Analysis Areas are within the general 1,300 feet setback area described in the 2011 PEIR. Any future extractive facilities would be subject to the noise standards within the General Plan Noise Element at the proposed site and adjacent uses. Therefore, new NSLU accommodated by the PSR Analysis Areas are unlikely to be exposed to noise levels in excess of County standards from extractive industries and a potentially significant impact would not occur.

Industrial and Commercial Industries

Operation of a commercial/industrial facility can cause the exposure of on-site or off-site areas to increased noise associated with mechanical equipment (pumps, rooftop equipment, condenser units, A/C units, pneumatic equipment), operation-related traffic (vehicle movement, engine noise), speakers, bells, chimes, and outdoor human activity in defined limited areas. The Community Noise Survey for the 2009 NTR (County 2011b) identified a range in noise level of 65 to 69 dBA L_{eq} for commercial uses, indicating that commercial/industrial activities may be incompatible with the presence of nearby NSLU. Assuming a noise level of 69 dBA at 50 feet from the source, commercial and industrial activities would have the potential to exceed the most conservative noise level limit of 50 dBA for single-family residential use up to 450 feet from the source.

PSR Analysis Area VC57+ (which includes VC57, VC63 and VC64) would accommodate future semi-rural residential development near existing commercial land use. However, the existing commercial/light industrial center is located more than 450 feet to the west/northwest of the PSR Analysis Areas, outside the distance at which noise from the commercial/light industrial center would reasonably be expected to occur. PSR Analysis Area VC67 is also adjacent to existing light industrial land uses and would accommodate development of future industrial land uses, which generally would not be considered NSLU and would be compatible with the existing setting. A significant noise exposure impact would not occur in this PSR Analysis Area. However, the former CGSP Subareas CG1, CG6, CG7, and CG8 in the Bonsall CPA would accommodate on-site mixed use development to allow commercial land use adjacent to semi-rural residential development. Therefore, existing and proposed residential uses may be exposed to excessive noise levels from proposed commercial land uses. As a result, a potentially significant impact would occur.

Agricultural Operations

Truck deliveries and operation of farming equipment such as tractors are the noise sources associated with agricultural operations. The 2008 Community Noise Survey described in Section 2.11.1, identified agricultural operations as having a noise level range of 44.4 to 68.3 dBA, which may exceed the daytime noise level limit for residential land uses identified in the General Plan Noise Ordinance (50 dBA). PSR Analysis Areas in Bonsall, Fallbrook, North County Metro, Valley Center and the former CGSP Area would accommodate future residential development in areas that either have existing on-site agricultural operations or are adjacent to such operations. New NSLU that would be accommodated in the PSR Analysis Areas would have the potential to be exposed to noise levels in excess of Noise Ordinance standards. A potentially significant impact would occur.

Adoption of the Valley Center Community Plan Residential Policy 8 Revision would allow for additional minimum lot size flexibility for residential clustering only within SR-2 or SR-4 areas and only within the sewer service area; however, the adoption would not result in an increase in the number of allowed dwelling units. Therefore, implementation of Valley Center Community Plan

Residential Policy 8 Revision would not result in an impact related to increased exposure to excessive noise.

The Proposed Project would cause impacts related to excessive noise levels from roadways, railways, commercial land uses, and agricultural operations that would be potentially significant (Impact NO-1).

2.11.3.2 Issue 2: Excessive Groundborne Vibration

Guidelines for Determination of Significance

Based on the County of San Diego Guidelines for Determining Significance Noise (DPLU 2009a), development under the Proposed Project would be considered to have a significant impact if it would expose the uses listed in Table 2.11-8 and Table 2.11-9 to groundborne vibration or noise levels equal to or more than the levels shown.

Impact Analysis

The PSR Analysis Areas would have the potential to result in significant groundborne vibration or noise, if construction activities associated with the development of land uses under the Proposed Project would exceed the groundborne vibration levels listed in Table 2.11-8, or if new vibration sensitive land uses would be near groundborne vibration, inducing land uses such as railroads or mining operations. Groundborne vibration can disrupt vibration-sensitive land uses by causing movement of buildings, rattling of windows and items inside buildings, rumbling sounds, and even property damage. According to the Transit Noise and Vibration Impact Assessment, prepared by the FTA in 2006, background vibration levels in residential areas are typically 0.00003 inches per second root mean square (in/sec RMS), which is lower than 0.0001 in/sec RMS, the threshold of perception for humans (County 2011b).

Construction

As shown in Table 2.11-10, construction typically results in groundborne vibration that ranges from 0.003 to 0.01 in/sec RMS at a 50-foot distance. These vibration levels would exceed the significant threshold for infrequent events (fewer than 70 vibration events per day) for Category 1 land uses (vibration-sensitive equipment) but would not exceed the threshold level for the land uses within Categories 2 and 3. For isolated events such as blasting, impacts would be significant if the peak particle velocity exceeds 1.0 in/sec RMS. For other vibration sources, such as pile drivers or hydraulic breakers, impacts would be significant if the peak particle velocity exceeds 0.1 in/sec RMS.

It is not possible to determine exact vibration levels associated with the development of land uses proposed under the Proposed Project, because no specific plans or time scales for individual projects are yet available. However, most of the new development associated with the PSR Analysis Areas would be in the northern region of the unincorporated county near existing development, specifically in the Bonsall CPA, Fallbrook CPA, North County Metro Subregion, Pala-Pauma Subregion, San Dieguito CPA, and Valley Center CPA. These areas are most likely to be affected by groundborne vibration and noise from construction resulting from the development of land uses accommodated under the PSR Analysis Areas.

A substantial amount of new growth would also be accommodated in the Desert Subregion near Borrego Springs. PSR Analysis Areas DS8 and DS24 would result in an increase of 389 and 153 dwelling units, respectively. However, most of the surrounding land uses are occupied by low density residential or vacant land. The potential for impacts to surrounding sensitive land uses

from construction-related development under the Proposed Project is less likely in this area, although not negligible.

Within all the PSR Analysis Areas, including those with relatively few potential dwelling unit increases such as Crest-Dehesa and Mountain Empire, new development could require infrastructure that would have the potential to result in substantial construction-related groundborne vibration and noise.

Railroads

The Desert Line is located within the vicinity of PSR Analysis Areas ME26 and ME30A. As shown in Table 2.11-10, typical vibration levels for commuter rail operations can range from 0.0003 to 0.003 in/sec RMS at 50-foot distance. According to the FTA 2006 Transit Noise and Vibration Impact Assessment, freight trains tend to be similar to commuter and intercity passenger trains in that they are both diesel powered and have the same types of cars. However, freight trains differ in their overall length, number and size of locomotives, and number of heavily loaded cars. In assessing freight train vibration, a dual approach is recommended with separate consideration of the locomotive and rail car vibration. Because the locomotive vibration only lasts for a very short time, the few-event criterion is appropriate for fewer than 30 events per day. However, for a typical line-haul freight train, where the rail car vibration lasts for several minutes, the many-event limits should be applied to the rail car vibration (FTA 2006). Therefore, at a 50-foot distance, vibration levels would likely not exceed the significance threshold for Category 3, but may exceed the significance threshold for Categories 1 and 2 land uses (vibration-sensitive equipment and residences or buildings where people sleep).

Residential development that would be introduced within the Mountain Empire Subregional Plan Area (ME26 and ME30A) would be located near the Desert Line. If the Desert Line becomes operational in the future, this development would have the potential to be exposed to vibration impacts, particularly ME30A, which would be bisected by the freight line. The FTA provides screening distances for land use categories to screen projects that may be subject to vibration impacts from conventional commuter railroads. For Category 2 land uses, which include residences, the screening distance from a conventional commuter railroad right-of-way is 200 feet. The FTA does not indicate screening distances for land uses from freight railroads; however, it can reasonably be assumed that set-backs for the Desert Line would be similar to those for conventional commuter railroads because events would be less frequent that a typical commuter railroad.

Located more than two miles from the Desert Line, PSR Analysis Area ME26 would be outside of the impact screening distance, but development in ME30A could be located within 200 feet of the railroad. Therefore, a potentially significant impact related to excessive groundborne vibration from railroad noise would occur.

Extraction (Mining) Operations

Mining and extraction operations may include blasting or other activities that may result in groundborne vibration or noise impacts. Equipment used for extraction operations can reasonably be assumed to have similar levels of vibration associated with blasting and heavy equipment used for construction projects. Therefore, vibration levels from mining equipment could potentially range between 0.003 to 0.01 in/sec RMS at a 50-foot distance.

These levels could exceed the significance threshold for vibration impacts depending on the frequency of occurrences throughout the day. If the frequency is more than 70 vibration events per day, impacts would be significant for all three land use categories. If the frequency is less than 70 vibration events per day, impacts would be significant for Category 1 land uses (vibration-

sensitive equipment), but may not exceed the significance threshold for Categories 2 and 3. Additionally, isolated events such as blasting may be significant if the peak particle velocity exceeds 1.0 in/sec RMS and the use of impact pile drivers or hydraulic breakers may be significant if the PPB exceeds 0.1 in/sec.

The U.S. Office of Surface Mining Reclamation and Enforcement has also established guidelines related to blasting for surface mining activities, which may result in groundborne vibration impacts. The guidelines require the operator to distribute a blasting schedule, post blasting signs, and control access within the blasting area. Also established are air blast and ground vibration limits at the location of any dwelling, public building, school, church, or community building outside the permit area. The standard peak particle velocity damage threshold for residential structures is 2.0 in/sec.

As described in Section 2.11.1, there are no PSR Analysis Areas within one quarter mile (1,300 feet) of an existing mining or extractive operation. As stated above, typical equipment vibration levels would not exceed the damage threshold for residential structures beyond 50 feet of equipment operations. Therefore, the PSR Analysis Areas are unlikely to be exposed to excessive vibration levels from extractive industries and a potentially significant impact would not occur.

Adoption of the Valley Center Community Plan Residential Policy 8 Revision would allow for additional minimum lot size flexibility for residential clustering only within SR-2 or SR-4 areas and only within the sewer service area; however, the adoption would not result in an increase in the number of allowed dwelling units. Therefore, implementation of Valley Center Community Plan Residential Policy 8 Revision would not result in an impact related to exposure to excessive groundborne vibration.

The Proposed Project would cause impacts related to excessive groundborne vibration from construction activities and railways that would be potentially significant (Impact NO-2).

2.11.3.3 Issue 3: Permanent Increase in Ambient Noise Levels

Guidelines for Determination of Significance

Based on the County of San Diego Guidelines for Determining Significance Noise (DPLU 2009a), development under the Proposed Project would be considered to have a significant impact if it would generate airborne noise which, together with noise from all sources, will be in excess of the following limits. Exemptions are listed in San Diego County Code of Regulatory Ordinances Section 36.417 and apply to certain cases of emergency work, school activities, public events, emergency generators, agricultural operations and property maintenance.

For non-construction noise: The limit specified in San Diego County Code Section 36.404, General Sound Level Limits, at the property line of the property on which the noise is produced or at any location on a property that is receiving the noise. Table 2.11-11 summarizes the limits identified in Section 36.404.

For impulsive noise: The limit specified by San Diego County Code Section 36.410, Sound Level Limitations on Impulsive Noise. Section 36.410 states: In addition to the general limitations on sound levels in Section 36.404 and the limitations on construction equipment in Section 36.409, the following additional sound level limitations shall apply:

(a) Except for emergency work or work on a public road project, no person shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 2.11-12, when measured at the boundary line of the property where the noise

source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property. The uses in Table 2.11-12 are as described in the County Zoning Ordinance.

(b) Except for emergency work, no person working on a public road project shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 2.11-13, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property. The uses in Table 2.11-13 are as described in the County Zoning Ordinance.

(c) The minimum measurement period for any measurements conducted under this section shall be one hour. During the measurement period a measurement shall be conducted every minute from a fixed location on an occupied property. The measurements shall measure the maximum sound level during each minute of the measurement period. If the sound level caused by construction equipment or the producer of the impulsive noise exceeds the maximum sound level for any portion of any minute, it will be deemed that the maximum sound level was exceeded during that minute.

For disturbing, excessive and offensive noises: San Diego County Code of Regulatory Ordinances Section 36.414, General Noise Prohibitions, specifies additional general limitations for disturbing, excessive and offensive noises including from vehicle horns, radios, televisions, verbal communication, animals, steam whistles, and motor vehicles.

For transportation-related noise: Development under the Proposed Project would be considered to have a significant impact if it would result in a substantial permanent increase in ambient noise levels, defined as raising the noise levels above the County Guidelines Section 4.1-A-ii of 60 dB CNEL or an increase of 10 dB CNEL over pre-existing noise in areas where the ambient noise level is 49 dBA CNEL or less. In areas where the existing noise level without the project is above 60 dBA but below 65 dBA, the Proposed Project would result in a significant impact if it would result in an increase of more than 3 dBA, in accordance with the FTA noise impact criteria. Where the existing noise exposure is between 65 dBA and 70 dBA, a significant impact would occur if the Proposed Project would exceed the existing noise level by more than 1 dBA. Where the existing noise exposure exceeds 70 dBA, any increase in the noise level would be considered significant.

Impact Analysis

Future development in the County consistent with the PSR Analysis Areas and the former CGSP Area would result in a significant impact if it would substantially increase ambient noise levels above existing conditions. Additional vehicle trips compared to adopted General Plan land use designations would have the potential to increase traffic noise above existing and anticipated future conditions. Operational noise from industrial, agricultural or other noise-generating uses may result in permanent increases in noise that may affect surrounding land uses.

Roadways

As described in Section 3.2 of the 2009 NTR (County 2011b), buildout of the adopted General Plan would have the potential to result in significant increases in noise levels on roadways throughout the unincorporated County because of increased roadway capacities, additional vehicle trips from new development, and construction of new roadways. The Proposed Project would have the potential to add more vehicle trips to the surrounding roadways than what is

accounted for in the General Plan. Table 2.11-14 compares noise levels on roadway segments with and without the Proposed Project. As explained in detail in Section 1.3.1 of the Noise Technical Report (see Appendix D of this SEIR), noise levels were assessed using standard noise modeling equations adapted from the FHWA noise prediction model using traffic data provided by the Transportation Impact Assessment (see Appendix E of this SEIR). Noise levels were analyzed on roadways that would have the greatest increase in traffic under the Proposed Project. The list below is not meant to be exhaustive; the intent is to show generally those areas that can expect a substantial increase in noise levels as compared to impacts identified for the adopted General Plan.

Most of the anticipated significant noise increases occur in CPAs or Subregions where the Proposed Project would substantially increase the number of allowable dwelling units compared to the land uses currently accommodated under the General Plan. For example, in the Desert Subregion, PSR Analysis Area DS8 would increase the number of potential dwelling units by 389, and PSR Analysis Area DS24 would increase the number of potential dwelling units by 153. The associated increase in traffic would result in an increase in noise levels on Yaqui Pass Road to above 60 dBA. Likewise, PSR Analysis Area VC7+ within the Valley Center CPA would increase the number of potential dwelling units by 253, resulting in additional traffic on West Lilac Road that would significantly increase noise levels. PSR Analysis Area NC38+ within the North County Metro Subregion would increase the number of potential dwelling units by 38 next to Deer Springs Road, which is anticipated to experience noise levels above 80 dBA CNEL under buildout of the adopted General Plan. Therefore, implementation of the Proposed Project would result in a potentially significant impact related to a permanent increase in traffic noise levels.

Non-Transportation Noise Sources

Industrial and Commercial Activities

An example of a potential noise impact from future development of land uses designated under the Proposed Project would be the development of industrial land uses in areas that are relatively quiet or contain, or are designated for, NSLU. Operation of an industrial facility can cause the exposure of on-site or off-site areas to increased noise associated with mechanical equipment (pumps, rooftop equipment, condenser units, A/C units, pneumatic equipment), operation-related traffic (vehicle movement, engine noise), speakers, bells, chimes, and outdoor human activity in defined limited areas. The only PSR Analysis Area that proposes a land use designation that could accommodate industrial land uses is VC67, in the southern region of Valley Center, which proposes to change the land use designation from SR-2 (Semi-Rural, 1 unit per 2, 4, or 8 gross acres) to I-2 (Medium Impact Industrial). PSR Analysis Area VC67 would be located adjacent to existing industrial and rural residential land uses. Therefore, new industrial facilities that may be accommodated in PSR Analysis Area VC67 may result in a significant impact to adjacent NSLU.

Commercial development and mixed-use development containing commercial use would be accommodated within PSR Analysis Area SD15 and the former CGSP Area. The Community Noise Survey for the 2009 NTR (County 2011b) identified a range in noise level of 65 to 69 dBA for commercial uses. Therefore, commercial land uses may generate noise that exceeds the daytime exterior noise limits of 50 to 60 dBA for residential land uses described in Table 2.11-11. Both PSR Analysis Area SD15 and the former CGSP Area are located within the vicinity of existing residential development and would have the potential to accommodate new residential development. Therefore, a potentially significant impact would occur.

Agricultural Operations

The General Plan allows for agricultural operations within any land use designation. As such, the Proposed Project would have the potential to accommodate new agricultural operations, which may be located near residences or other NSLU. Truck deliveries and operation of farming equipment such as tractors are the primary agricultural noise sources. As shown in Table 2.11-1, the Community Noise Survey identified agricultural operations as having a noise level of approximately 68.3 dBA, which exceeds the noise limit identified in Table 2.11-11 for residential land uses. However, under Noise Ordinance Section 36.417, agricultural operations are generally exempt from the noise standards, provided that each piece of equipment and machinery powered by an internal-combustion engine is equipped with an appropriate muffler and air intake silencer in good working order and one of the following applies: operations do not take place between 7:00 p.m. and 7:00 a.m.; the operations and equipment are utilized for the preparation, planting, harvesting, protection or salvage of agricultural crops during adverse weather conditions; or the operations and equipment are used for agricultural pest control in accordance with regulations and procedures administered by the County Department of Agriculture. Therefore, agricultural operations would not result in a significant impact.

Nuisance Noise

The land use designations proposed within the PSR Analysis Areas would accommodate primarily residential development, which has the potential to generate nuisance noise. Intermittent or temporary neighborhood nuisance noise from amplified music, public address systems, barking dogs, landscape maintenance, and stand-by power generators are disturbing to residents but are difficult to attenuate and control. These noise sources would result in a significant impact if they would exceed the noise standards included in Section 36.414 of the Noise Ordinance. As shown in Table 2.11-3, noise complaints by residents show that the highest number of complaints is due to barking dogs. Nuisance noise impacts are more likely to occur in the more densely developed areas of the unincorporated County, where residences would be closer together and neighbors would be more likely to hear a neighborhood dog or music. All the PSR Analysis Areas, except VC67, would accommodate future intensified residential development, above what is currently proposed under the General Plan, increasing the potential for residents registering noise complaints. Continued enforcement of the Noise Ordinance would reduce potential nuisance noise impacts to the extent feasible.

Other Noise-Generating Activities

Other noise-generating uses in the County include extractive operations, casinos, shooting ranges, and landfills. Similar to the adopted General Plan, no new mining operations are directly envisioned as part of the Proposed Project. The land use designations proposed within the PSR Analysis Areas and former CGSP Area would accommodate primarily residential development, and some commercial and medium industrial use. The proposed land use designations and existing surrounding land uses would generally be considered incompatible with new extractive, casino, shooting range, and landfill operations. As such, new facilities would be unlikely to be accommodated by the Proposed Project and a significant impact would not occur.

Adoption of the Valley Center Community Plan Residential Policy 8 Revision would allow for additional minimum lot size flexibility for residential clustering only within SR-2 or SR-4 areas and only within the sewer service area; however, the adoption would not result in an increase in the number of allowed dwelling units. Therefore, implementation of Valley Center Community Plan Residential Policy 8 Revision would not result in an impact related to permanent increases in ambient noise levels.

The Proposed Project would cause impacts related to a permanent increase in ambient noise levels from roadways, and commercial and industrial activities that would be potentially significant (Impact NO-3).

2.11.3.4 Issue 4: Temporary Increase in Ambient Noise Levels

Guidelines for Determination of Significance

Based on the County of San Diego Guidelines for Determining Significance Noise (DPLU 2009a), development under the Proposed Project would result in a significant impact if it would exceed the noise limits in the Noise Ordinance. For construction noise, the limit specified by San Diego County Code Section 36.408, Hours of Operation of Construction Equipment, and Section 36.409, Sound Level Limitations on Construction Equipment. Sections 36.408 and 36.409 state: Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 dBA for an eight-hour period, between 7:00 a.m. and 7:00 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received. Furthermore, it shall be unlawful for any person to operate, or cause to be operated, construction equipment on Sundays and holidays, or on any other day between 7:00 p.m. and 7:00 a.m. unless that construction is operated at a person's residence or for the purpose of constructing a residence for himself, on a Sunday or holiday between the hours of 10:00 a.m. and 5:00 p.m.

Impact Analysis

The future development of land uses consistent with the Proposed Project would have the potential to result in the exposure of on-site or off-site areas to noise in excess of the standards listed in San Diego County Code Sections 36.408 and 36.409. Construction equipment associated with project-related development activities would include but are not limited to site grading, truck/construction equipment movement, engine noise, rock excavation, rock crushing, and blasting. Typical construction equipment noise levels are provided in Table 2.11-15.

Future development that would be accommodated under the Proposed Project would be in relatively rural areas of the eastern portion of the County (e.g. the Desert and Mountain Empire Subregions), as well as in denser, more populated areas in the western portion of the County (e.g. San Dieguito, Crest-Dehesa, North County Metro, Bonsall and Valley Center planning areas). While the relatively built-out areas in the western portion of the County are more likely to be affected by increases in ambient noise from construction related to future development under the Proposed Project, growth in any of the PSR Analysis Areas and former CGSP Area would have the potential for temporary, construction-related noise impacts. The future development patterns that would be accommodated by the Proposed Project are similar to what is currently anticipated under the General Plan. That is, most future growth will occur in the western portion of the County but construction-related noise anywhere could potentially result in significant impacts.

Adoption of the Valley Center Community Plan Residential Policy 8 Revision would allow for additional minimum lot size flexibility for residential clustering only within SR-2 or SR-4 areas and only within the sewer service area; however, the adoption would not result in an increase in the number of allowed dwelling units. Therefore, implementation of Valley Center Community Plan Residential Policy 8 Revision would not result in an impact related to temporary increases in ambient noise levels

The Proposed Project would cause impacts related to a temporary increase in ambient noise levels from construction that would be potentially significant (Impact NO-4).

2.11.3.5 Issue 5: Excessive Noise Exposure from a Public or Private Airport

Guidelines for Determination of Significance

Based on the California Airport Land Use Planning Handbook, the level of noise acceptable to new development near most airports is established as an annual CNEL value of 60 dBA. The limitations on airport noise in residential communities are established to be:

- The criterion annual CNEL is 60 dBA for proposed new airports and for active military airports being converted to civilian use.
- The criterion annual CNEL for existing civilian airports is 60 dBA.

Impact Analysis

Public airports and private airstrips may result in excessive noise impacts to NSLU from activities such as aircraft takeoffs and landings. NSLU should generally not be located within the 60 dBA annual CNEL noise contour of a public airport, or within two miles of a private airstrip. The two-mile buffer is conservatively assumed to represent a 60 dBA CNEL noise contour for private airstrips. As shown in the Noise Contour figure in the Noise Technical Report (Appendix D to this SEIR), none of the PSR Analysis Areas or the former CGSP Area are located within any airport noise contour. Two PSR Study Areas are located within two miles of a private airstrip, including PSR Analysis Area VC7+ (located 1.5 miles from Blackinton airstrip) and PSR Analysis Area VC57+ (located 0.5 mile from Hoag heliport). However, these airstrips accommodate only small planes and experience minimal air traffic. The Blackinton airstrip experiences approximately 12 single-engine flights per year, and the Hoag heliport experiences approximately two helicopter landings per year (AirNav 2017). Due to the minimal operations at these facilities and distance from the respective PSR Analysis Area, it is unlikely that new development within the PSR Analysis Areas VC7+ and VC57+ would be exposed to excessive noise levels from operation of these private facilities. Therefore, the Proposed Project would result in a less than significant impact related to excessive noise exposure from a public or private airport.

Adoption of the Valley Center Community Plan Residential Policy 8 Revision would allow for additional minimum lot size flexibility for residential clustering only within SR-2 or SR-4 areas and only within the sewer service area; however, the adoption would not result in an increase in the number of allowed dwelling units. Therefore, implementation of Valley Center Community Plan Residential Policy 8 Revision would not result in an impact related to noise exposure from a private or public airport.

2.11.4 Cumulative Impacts

The cumulative impact analysis study area for noise in the 2011 PEIR was identified as areas surrounding noise-generating sources, such as roadways, agricultural or industrial uses because noise impacts are localized in nature (County 2011b). As the Proposed Project is applying the adopted General Plan principles to assign land use designations for the project areas throughout the unincorporated County, the cumulative study area for noise is the same as the 2011 PEIR and is hereby incorporated by reference. In addition, Section 1.11 (Cumulative Project

Assessment Overview) of this SEIR provides an update of new projects since the adoption of the General Plan that are considered in this cumulative analysis.

2.11.4.1 Issue 1: Excessive Noise Levels

A cumulative noise impact would occur if construction and development associated with cumulative regional land use projects combined would exceed the standards of the General Plan Noise Element. Similar to the Proposed Project, development and construction proposed under most cumulative projects would be subject to regulations that require compliance with noise standards, such as those contained in State regulations and County policies and regulations. As discussed above, development associated with buildout of the PSR Analysis Areas the and former CGSP Area would result in potentially significant impacts related to exposure of NSLU to excessive noise levels from roadway, railroad, commercial, and agricultural noise sources. Development and construction proposed by cumulative projects in the County would potentially be exposed to similar noise sources. **Therefore, the Proposed Project, in combination with the identified cumulative projects, would cause a potentially significant cumulative impact associated with noise. The Proposed Project contribution would be cumulatively considerable (Impact NO-5).**

2.11.4.2 Issue 2: Excessive Groundborne Vibration

A cumulative groundborne vibration impact would occur if one or more projects in the area would result in combined groundborne vibration impacts that would increase vibration levels beyond the standards in the County significance thresholds. Groundborne vibration impacts could result from construction operations, railroad operations, or heavy equipment operations such as mining. There are no specific plans or time scales for individual construction projects in the PSR Analysis Areas; therefore, it is not possible to determine exact noise levels, locations, or time periods for construction. Potential vibration impacts from construction would need to be analyzed on a case-by-case basis and would be temporary in nature. A significant cumulative impact would not occur.

No active mining facilities are located at a close enough distance to the PSR Analysis Areas or the former CGSP Area that would potentially exceed groundborne vibration significance thresholds for vibration-sensitive uses. Therefore, a significant cumulative impact would not occur related to extraction operations.

2.11.4.3 Issue 3: Permanent Increase in Ambient Noise Levels

Roadways

As discussed above in Section 2.11.3.3, the PSR Analysis Areas and the former CGSP Area would have the potential to result in a permanent increase in ambient noise levels beyond those identified for the 2011 PEIR. In addition, as described in Section 1.3.1 of the Noise Technical Report (Appendix D), the potential of the Proposed Project resulting in cumulatively considerable impacts is also demonstrated by comparing noise levels with implementation of the Proposed Project compared to estimated noise levels at full buildout of the adopted General Plan and the additional General Plan Amendments that are currently in process. The results of this analysis are presented in Table 2.11-16, and show future noise levels without the Proposed Project would result in noise levels that exceed County noise compatibility guidelines. Therefore, the adopted General Plan in combination with the identified cumulative projects (General Plan Amendments currently in process) would have the potential to result in a significant cumulative impact. The Proposed Project would result in significant additional noise on several roadways in the North County Metro and Bonsall planning areas (Buena Creek Road, Deer Springs Road, and West

Lilac Road). **Therefore, the Proposed Project would result in a cumulatively considerable increase in roadway noise levels (Impact NO-6).**

Non-Transportation Noise Sources

A cumulative noise impact would occur if construction and development associated with cumulative regional land use projects combined would result in new permanent noise sources that exceed the standards of the General Plan Noise Element. As discussed above, development associated with buildout of the PSR Analysis Areas and the former CGSP Area would result in potentially significant impacts related to new commercial and nuisance noise sources. Development and construction proposed by cumulative projects in the County would potentially result in new commercial, industrial, or nuisance noise sources with the potential to exceed noise level limits. Therefore, the Proposed Project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with noise from permanent noise sources. The Proposed Project's contribution would be cumulatively considerable. However, due to the short-term and event-specific nature of nuisance noise impacts, the PSR Analysis Areas and the former CGSP Area, in combination with cumulative development, would not be expected to result in a cumulative nuisance noise impact related to nuisance noise.

Similar to the Proposed Project, future development projects proposed under most cumulative projects would be subject to regulations that require compliance with noise standards, such as those contained in State regulations and County policies and regulations. Future discretionary projects would be required to conduct a Noise Impact Analysis report consistent with the County of San Diego Report Format and Content Requirements. Future development would be required to comply with all standards established by the County. Mitigation measures would also be required for any significant impacts. Therefore, cumulative impacts associated with non-transportation related permanent noise increases would be reduced to a level below significant.

2.11.4.4 Issue 4: Temporary Increase in Ambient Noise Levels

A cumulative noise impact would occur if construction associated with one or more projects in an area would result in combined noise levels that would temporarily increase ambient noise levels beyond the standards in the County Noise Ordinance. However, since there are no specific plans or time scales for individual projects, it is not possible to determine exact noise levels, locations, or time periods for construction. Potential construction noise-related impacts would be temporary and limited to the area immediately surrounding the project. Additionally, future construction projects would be required to comply with the County Noise Ordinance, which establishes hours of operation and noise level limits on construction activities. Therefore, a significant cumulative impact would not occur as a result of temporary construction noise.

2.11.4.5 Issue 5: Excessive Noise Exposure from a Public or Private Airport

A cumulative noise impact would occur if construction and operation associated with cumulative regional land use projects, such as those identified in the adopted General Plan and adjacent city plans and regional transportation plans, when combined would result in the exposure of NSLUs to excessive noise from a public or private airport. Development and construction proposed under most cumulative projects would be subject to regulations that require compliance with noise standards, such as the 1990 California Airport Noise Standards and applicable ALUCPs. Additionally, the PSRs Analysis Areas and former CGSP Area are not located within any airport

noise impact area. Therefore, a significant cumulative impact would not occur from exposure to a public or private airport.

2.11.5 Mitigation

2.11.5.1 Issue 1: Excessive Noise Levels

Implementation of the following adopted General Plan policies and 2011 PEIR mitigation measures would reduce **Impact NO-1** and **Impact NO-5** to a level less than significant.

Adopted General Plan Policies

Policy LU-2.8: Mitigation of Development Impacts. Require measures that minimize significant impacts to surrounding areas from uses or operations that cause excessive noise, vibrations, dust, odor, aesthetic impairment and/or are detrimental to human health and safety.

Policy M-1.3: Treatment of High-Volume Roadways. To avoid bisecting communities or town centers, consider narrower rights-of-way, flexibility in design standards, and lower design speeds in areas planned for substantial development. Reduce noise, air, and visual impacts of new freeways, regional arterials, and Mobility Element roads, through landscaping, design, and/or careful location of facilities

Policy M-2.4: Roadway Noise Buffers. Incorporate buffers or other noise reduction measures consistent with standards established in the Noise Element into the siting and design of roads located next to sensitive noise-receptors to minimize adverse impacts from traffic noise. Consider reduction measures such as alternative road design, reduced speeds, alternative paving, and setbacks or buffers, prior to berms and walls.

Policy N-1.4: Adjacent Jurisdiction Noise Standards. Incorporate the noise standards of an adjacent jurisdiction into the evaluation of a proposed project when it has the potential to impact the noise environment of that jurisdiction.

Policy N-1.5: Regional Noise Impacts. Work with local and regional transit agencies and/or other jurisdictions, as appropriate, to provide services or facilities to minimize regional traffic noise and other sources of noise in the County.

Policy N-2.1: Development Impacts to Noise Sensitive Land Uses. Require an acoustical study to identify inappropriate noise levels where development may directly result in any existing or future noise sensitive land uses being subject to noise levels equal to or greater than 60 CNEL and require mitigation for sensitive uses in compliance with the noise standards listed in Table N-2 in the Noise Element.

Policy N-2.2: Balconies and Patios. Assure that in developments where the exterior noise level on patios or balconies for multi-family residences or mixed-use developments exceed 65 CNEL, a solid noise barrier is incorporated into the building design of the balconies and patios while still maintaining the openness of the patio or balcony.

Policy N-4.2: Traffic Calming. Include traffic calming design, traffic control measures, and low-noise pavement surfaces that minimize motor vehicle traffic noise in development that may impact noise sensitive land uses.

Policy N-4.3: Jurisdictional Coordination. Coordinate with California Department of Transportation (Caltrans), the City of San Diego, and other adjacent jurisdictions, as appropriate,

for early review of proposed new and expanded State freeways, highways, and road improvement projects within or affecting the unincorporated County to: 1) locate facilities where the impacts to noise sensitive land uses would be minimized, and 2) develop and include noise abatement measures in the projects to minimize and/or avoid the impacts to noise sensitive land uses.

Policy N-4.6: Road Improvement Projects. For County road improvement projects, evaluate the Proposed Project against ambient noise levels to determine whether the project would increase ambient noise levels by more than 3 dBA. If so, apply the limits in the noise standards listed in Table N-2 in the Noise Element for noise sensitive land uses that may be affected by the increased noise levels. For federally-funded roadway construction projects, use the limits in the applicable Federal Highway Administration Standards.

Policy N-4.7: Railway Jurisdictional Coordination. Work with the San Diego Association of Governments (SANDAG), Caltrans, Metropolitan Transit System (MTS), California High-Speed Rail Authority, and passenger and freight train operators as appropriate to install noise attenuation features to minimize impacts to adjacent residential or other noise sensitive uses from railroad operations.

Policy N-4.8: Train Horn Noise. Establish train horn "quiet zones" with new rail projects consistent with federal regulations, where applicable. Promote community programs for existing at-grade crossings by working with rail operators.

Policy N-5.1: Truck Access. Design development so that automobile and truck access to industrial and commercial properties abutting residential properties is located at the maximum practical distance from residential zones.

Policy N-5.2: Noise-Generating Industrial Facilities. Locate noise-generating industrial facilities at the maximum practical distance from residential zones. Use setbacks between noise generating equipment and noise sensitive uses and limit the operation of noise generating activities to daytime hours as appropriate where such activities may affect residential uses.

Adopted 2011 PEIR Mitigation Measures

Noi-1.1: Require an acoustical analysis whenever a new development may result in any existing or future noise sensitive land uses being subject to on-site noise levels of 60 dBA (CNEL) or greater, or other land uses that may result in noise levels exceeding the "Acceptable" standard in the Noise Compatibility Guidelines (Table N-1 in the Noise Element).

Noi-1.2: Revise the Guidelines for Determining Significance for new developments where the exterior noise level on patios or balconies for multi-family residences or mixed-use development exceeds 65 dBA (CNEL), a solid noise barrier is incorporated into the building design of balconies and patios for units that exceed 65 dBA (CNEL) while still maintaining the openness of the patio or balcony.

Noi-1.3: Require an acoustical study for projects proposing amendments to the County General Plan Land Use Element and/or Mobility Element that propose a significant increase to the average daily traffic due to trips associated with the project beyond those anticipated in the General Plan.

Noi-1.4: Edit the Guidelines for Determining Significance standard mitigation and project design considerations to promote traffic calming design, traffic control measures, and low-noise pavement surfaces that minimize motor vehicle traffic noise.

Noi-1.5: Coordinate with Caltrans and SANDAG as appropriate to identify and analyze appropriate route alternatives that may minimize noise impacts to noise sensitive land uses within the unincorporated areas of San Diego County.

Noi-1.6: Coordinate with SANDAG, MTS, California High-Speed Rail Authority as appropriate, and passenger and freight train operators to install noise attenuation features to minimize impacts to adjacent residential or other noise sensitive land uses.

Noi-1.7: Work with project applicants during the scoping phase of Proposed Projects to take into consideration impacts resulting from on-site noise generation to noise sensitive land uses located outside the County's jurisdictional authority. The County will notify and coordinate with the appropriate jurisdiction(s) to determine appropriate project design techniques and/or mitigation.

Noi-1.8: Implement and/or establish procedures (or cooperative agreements) with Caltrans, the City of San Diego, and other jurisdictions as appropriate to ensure that a public participation process or forum is available for the affected community to participate and discuss issues regarding transportation generated noise impacts for new or expanded roadway projects that may affect noise sensitive land uses within the unincorporated areas of San Diego County.

Noi-1.9: Coordinate with Caltrans and the County of San Diego Planning & Development Services Landscape Architect, and receive input from community representatives as appropriate (e.g., Planning or Sponsor Group) to determine the appropriate noise mitigation measure (planted berms, noise attenuation barriers or a combination of the two) to be required as a part of the proposals for roadway improvement projects and ensure that the County Five Year Capital Improvement Program and Preliminary Engineering Reports address noise impacts and appropriate mitigation measures for road improvement projects within or affecting the unincorporated area of the County.

2.11.5.2 Issue 2: Excessive Groundborne Vibration

Implementation of the following adopted General Plan policies and 2011 PEIR mitigation measures would reduce **Impact NO-2** to a level less than significant.

Adopted General Plan Policies

In addition to the adopted General Plan policies listed below, General Plan policies N-4.7 and N-5.2 listed under Section 2.11.5.1 for Issue 1 are applicable to the issue of excessive groundborne vibration and are incorporated here by reference.

Policy N-3.1: Groundborne Vibration. Use the Federal Transit Administration and Federal Railroad Administration guidelines, where appropriate, to limit the extent of exposure that sensitive uses may have to groundborne vibration from trains, construction equipment, and other sources.

Policy N-6.3: High-Noise Equipment. Require development to limit the frequency of use of motorized landscaping equipment, parking lot sweepers, and other high-noise equipment if their activity will result in noise that affects residential zones.

Policy N-6.4: Hours of Construction. Require development to limit the hours of operation as appropriate for non-emergency construction and maintenance, trash collection, and parking lot sweeper activity near noise sensitive land uses.

Adopted 2011 PEIR Mitigation Measures

Noi-2.1: For Land Use Designations defined in Table 2.11-14, a groundborne vibration technical study shall be required for proposed land uses within the following distances from the Sprinter Rail Line right-of-way and the property line: 600 feet of a Category 1 Land Use, 200 feet of a Category 2 Land Use, and 120 feet of a Category 3 Land Use. If necessary, mitigation shall be required for land uses in compliance with the standards listed in Tables 2 and 3 of the County of San Diego Guidelines for Determining Significance - Noise.

Noi-2.2: Revise the County CEQA determinations of significance to reflect limits in the Noise Compatibility Guidelines and Noise Standards [Policy N-3.1]. Periodically review the Guidelines for Determining Significance to incorporate standards for minimizing effects of groundborne vibration during project operation or construction.

Noi-2.3: Review project applications for industrial facilities to ensure they are located in areas that would minimize impacts to noise-sensitive land uses. Revise CEQA Guidelines for Determining Significance to incorporate appropriate noise attenuation measures for minimizing industrial-related noise.

Noi-2.4: Require an acoustical study whenever a proposed extractive land use facility may result in a significant noise impact to existing noise sensitive land uses, or when a proposed noise sensitive land use may be significantly affected by an existing extractive land use facility. The results of the acoustical study may require a "buffer zone" to be identified on all Major Use Permit applications for extractive facilities whenever a potential for a noise impact to noise sensitive land uses may occur.

2.11.5.3 Issue 3: Permanent Increase in Ambient Noise Levels

Implementation of the following adopted General Plan policies and 2011 PEIR mitigation measures would reduce **Impact NO-3** and **Impact NO-6** but **not to a level less than significant; therefore, impacts would remain significant and unavoidable.**

Adopted General Plan Policies

In addition to the adopted General Plan policies listed below, General Plan policies LU-2.8, M-1.3, M-2.4, N-1.5, N-4.2, N-5.1, and N-5.2 listed under Section 2.11.5.1 for Issue 1 and N-6.3 and N-6.4 listed under Section 2.11.5.2 for Issue 2 are applicable to the issue of a permanent increase in ambient noise levels and are incorporated here by reference.

Policy N-4.1: Traffic Noise. Require that projects proposing General Plan amendments that increase the average daily traffic beyond what is anticipated in this General Plan do not increase cumulative traffic noise to off-site noise sensitive land uses beyond acceptable levels.

Policy N-6.1: Noise Regulations. Develop and regularly update codes and ordinances as necessary to regulate impacts from point, intermittent, and other disruptive noise sources.

Policy N-6.2: Recurring Intermittent Noise. Minimize impacts from noise to land uses in areas where recurring intermittent noise may not exceed the noise standards listed in Table N-2 in the Noise Element, but can have other adverse effects.

Policy N-6.6: Code Enforcement. Provide sufficient resources within the County for effective enforcement of County codes and ordinances.

Adopted 2011 PEIR Mitigation Measures

In addition to the 2011 PEIR mitigation measures listed below, mitigation measures Noi-1.3, Noi-1.4, Noi-1.5, Noi-1.8, Noi-2.3 and Noi-2.4 listed in Section 2.11.5.2 for Issue 2 would reduce **Impact NO-3** and **Impact NO-6** but not to a level below significant and are incorporated here by reference.

Noi-3.1: Ensure that for new County road improvement projects either the County Noise Standards are used to evaluate noise impacts or the project does not exceed 3 decibels over existing noise levels [Policy N-4.6].

Noi-3.2: Work with the project applicant during the review of either the building permit or discretionary action (whichever is applicable) to determine appropriate noise reduction site design techniques that include:

- Orientation of loading/unloading docks away from noise sensitive land uses
- Setbacks or buffers to separate noise generating activities from noise sensitive land uses
- Design on-site ingress and egress access away from noise sensitive land uses [Policy N-5.1]

2.11.5.4 Issue 4: Temporary Increase in Ambient Noise Levels

Implementation of the following adopted General Plan policies and 2011 PEIR mitigation measures would reduce **Impact NO-4** to a level less than significant.

Adopted General Plan Policies

General Plan policies N-6.3 and N-6.4 listed under Section 2.11.5.2 for Issue 2 and Policies N-6.1, N-6.2, and N-6.6 listed under Section 2.11.5.3 for Issue 3 are applicable to the issue of a temporary increase in ambient noise levels and are incorporated here by reference.

Adopted 2011 PEIR Mitigation Measures

Noi-4.1: Periodically review and revise the Noise Ordinance and Section 6300 of the Zoning Ordinance as necessary to ensure appropriate restrictions for intermittent, short-term, or other nuisance noise sources.

Noi-4.2: Augment staff and equipment as appropriate to facilitate enforcement of the Noise Ordinance.

2.11.5.5 Issue 5: Excessive Noise Exposure from a Public or Private Airport

The Proposed Project would not result in significant direct and cumulative impacts associated with exposure to noise from a public or private airport; therefore, mitigation is not necessary. However, the following General Plan policies would continue to apply.

Adopted General Plan Policies

Policy N-4.9: Airport Compatibility. Assure the noise compatibility of any development projects that may be affected by noise from public or private airports and helipads during project review by coordinating, as appropriate, with appropriate agencies such as the San Diego County Regional Airport Authority (SDCRRAA) and the Federal Aviation Administration (FAA).

Policy S-15.1: Land Use Compatibility. Require land uses surrounding airports to be compatible with the operation of each airport.

Policy S-15.4: Private Airstrip and Heliport Location. Locate private airstrips and heliports outside of safety zones and flight paths for existing airports where they are compatible with surrounding established and planned land uses, and in a manner to avoid impacting public roadways and facilities.

2.11.6 Conclusion

The following discussion provides a synopsis of the conclusion reached in each of the above impact analyses, and the level of impact that would occur after mitigation measures are implemented.

2.11.6.1 Issue 1: Excessive Noise Levels

The Proposed Project would have the potential to introduce additional NSLUs to noise impacts from roadways, railroads, commercial land use, and agricultural operations. Compliance with existing regulations and the General Plan policies, guidelines and standards identified in Table 2.11-4 and Table 2.11-5 would reduce potential noise impacts in most locations to a less than significant level. Future discretionary projects under the Proposed Project would be required to conduct a Noise Impact Analysis report consistent with the County of San Diego Report Format and Content Requirements to demonstrate consistency with these standards. Furthermore, compliance with the adopted General Plan Noise Element policies would reduce noise impacts to NSLUs. Future development would be required to comply with all standards established by the County. Mitigation measures would be required for any significant impacts. **Therefore, direct and cumulative impacts to noise sensitive land uses would be reduced to a less than significant level (Impact NO-1 and Impact NO-5).**

2.11.6.2 Issue 2: Excessive Groundborne Vibration

General Plan Noise Element policies would minimize exposure of land uses to groundborne vibration from construction and railroad operation. In addition, future projects associated with development of the Proposed Project that have the potential for resulting in groundborne vibration and noise impacts from construction would be required to conduct a Noise Impact Analysis consistent with the County of San Diego Report Format and Content Requirements. Mitigation measures would be required for any significant impacts. **Compliance with the General Plan**

policies and 2011 PEIR mitigation measures would reduce direct impacts to a less than significant level (Impact NO-2). As discussed above, a potentially significant cumulative impact would not occur from the combined groundborne vibration impacts of other cumulative projects. Therefore, the Proposed Project would not contribute to a potentially significant cumulative impact.

2.11.6.3 Issue 3: Permanent Increase in Ambient Noise Levels

Development associated with the Proposed Project would add vehicles to County roadways above and beyond what is anticipated under the General Plan, leading to increased roadway noise levels on some road segments. In addition, the Proposed Project would allow potentially noise-generating industrial and commercial land uses in areas that are designated for residential use under the current General Plan. Nuisance noise could increase from future residential development. Compliance with policies in the General Plan Noise Element, in addition to compliance with the Noise Compatibility Guidelines and Noise Standards listed in Table 2.11-4 and Table 2.11-5, would reduce noise impacts from roadways and other non-transportation noise sources.

Future discretionary projects under the Proposed Project would be required to conduct a Noise Impact Analysis consistent with the County of San Diego Report Format and Content Requirements. Future development would be required to comply with all standards established by the County. Mitigation measures would be required for any significant impacts. **Therefore, impacts associated with non-transportation related permanent noise increases would be reduced to a level below significant.**

Noise levels associated with roadways would increase with implementation of the Proposed Project, compared to noise levels associated with implementation of the General Plan. Specifically, the Proposed Project would have a significant noise impact to Yaqui Pass Road, Deer Springs Road, and West Lilac Road. Additionally, the significant impacts identified for buildout of the adopted General Plan compared to existing conditions would also be anticipated to occur under full buildout of the General Plan with Proposed Project implementation. **Therefore, similar to the findings of the 2009 NTR, direct and cumulative permanent noise increases associated with increases in traffic noise are considered significant and unavoidable (Impact NO-3 and Impact NO-6).** Alternatives that would further reduce this impact are discussed in Chapter 4 (Project Alternatives).

2.11.6.4 Issue 4: Temporary Increase in Ambient Noise Levels

As future development locations and types accommodated within the PSR Analysis Areas and the former CGSP Area under the Proposed Project would be similar to that under the adopted General Plan, the mitigation measures identified in the 2011 PEIR would be sufficient to reduce construction noise to a level consistent with the General Plan. Additionally, the Noise Ordinance establishes specific noise level limits for construction activities in Sections 36.408 and 36.409. Specifically, the Noise Ordinance prohibits nighttime construction and requires construction activities to not exceed an average sound level of 75 dBA for an eight-hour period. **Compliance with the County Noise Ordinance, adopted General Plan policies from the General Plan Noise Element, and the adopted 2011 PEIR mitigation measures would reduce noise impacts from construction to a level below significant (Impact NO-4).**

2.11.6.5 Issue 5: Excessive Noise Exposure from a Public or Private Airport

Due to the minimal operations at public and private airport facilities and distance from the PSR Analysis Areas and the former CGSP Area, it is unlikely that new development allowed under the Proposed Project would be exposed to excessive noise levels from operation of these facilities. Therefore, no direct significant impact would occur as a result of implementation of the Proposed Project. In addition, a potentially significant cumulative impact would not occur from the combined airport noise exposure impacts of other cumulative projects. Therefore, the Proposed Project would not contribute to a potentially significant cumulative impact.

Table 2.11-1 2008 Noise Survey Results

CPA/Subregion	Location	Land Use Category	Noise Source	L_{eq} (dBA)
Bonsall	SR-76 (Mission Rd) between Via Montellano-Olive Hill Road	Prime arterial	Traffic	70.9
Crest-Dehesa	Sycuan Casino (Dehesa Road – 500 feet west of entrance)	Casino	Passenger buses	66.3
Crest-Dehesa	John F. Kennedy Park	Park	Recreational activity	58.9
Desert	Borrego Springs Resort	Hotels/resorts	Traffic, sprinklers	42.6
Desert	Borrego Springs High School	Schools	Bells, students	55.3
Fallbrook	Monserate Hill Road	Residential (Semi-Rural)	Traffic, birds	49.5
Fallbrook	Fallbrook Hospital	Hospital	Parking lot	64.2
Mountain Empire	Tecate Road between SR-94 and State border	Major Road	Traffic	65.5
N. County Metro	S. Santa Fe Avenue between Monte Vista Drive-Sycamore Avenue	Major Road	Traffic	68.5
N. County Metro	Twin Oaks Valley Road north of Deer Springs Road	Agriculture (greenhouses)	Delivery trucks	68.3
N. County Metro	Harmony Grove Village	Transitional Residential	Traffic, poultry farm	54.7
N. County Metro	San Pasqual Valley Road/Bear Valley Road	Residential (Low Dens)	Traffic	50.0
N. County Metro	SPRINTER Station – Vista Transit Center	Railroad	Light Rail	70.2
Pala-Pauma	Pauma Elementary School	Schools	Bells, students	49.5
San Dieguito	Rancho Bernardo Road/Camino Del Norte	Residential (High Dens)	Traffic	46.3
Valley Center	Blueberry Hill Lane	Residential (Low Dens)	Traffic	55.1
Valley Center	Lilac Road between Old Castle Road-Anthony Road	Community Collector	Traffic	68.6

Source: Harris 2016 (Appendix D to this SEIR)

Table 2.11-2 PSR Analysis Areas within Existing Roadway Noise Contours

PSR Analysis Area	55 dBA CNEL (acres)	60 dBA CNEL (acres)	65 dBA CNEL (acres)	70 dBA CNEL (acres)	75 dBA CNEL (acres)
BO18+	354	198	100	39	6
DS8	1	0	0	0	0
DS24	7	1	0	0	0
FB2+	18	11	5	0	0
FB17	95	11	0	0	0
FB19+	373	139	37	4	0
NC38+	2	0	0	0	0
PP30	8	4	1	0	0
SD15	19	10	5	2	0
VC7+	379	0	0	0	0
VC57+	139	80	23	0	0
CG1-8	2	39	35	39	24

Source: Harris 2016 (Appendix D to this SEIR)

Table 2.11-3 Noise Complaints by Community (2006)

Community	Bird	Construction	Dog	Machinery	Music	ORV	Rooster	Total
Bonsall		1	16	3	1		5	26
Borrego Springs			2	1				3
Crest-Dehesa	3		32	3		2	2	42
Fallbrook		1	34	3	1	1	8	48
Pala-Pauma			1	1				2
San Dieguito	1	1	31	3	4		1	41
Twin Oaks Valley			5				1	6
Valley Center	2	2	38	2		5	5	54
Total	6	5	159	16	6	8	22	222

ORV = Off-Highway Vehicles
Source: Harris 2016 (Appendix D to this SEIR)

Table 2.11-4 San Diego County Noise Compatibility Guidelines

		Exterior Noise Level (CNEL)					
	Land Use Category	**55**	**60**	**65**	**70**	**75**	**80**
A	Residential – single family residences, mobile homes, senior housing, convalescent homes						
B	Residential – multi-family residences, mixed-use (commercial / residential)						
C	Transient lodging – motels, hotels, resorts						
D[(1)]	Schools, churches, hospitals, nursing homes, child care facilities						
E[(1)]	Passive recreational parks, nature preserves, contemplative spaces, cemeteries						
F[(1)]	Active parks, golf courses, athletic fields, outdoor spectator sports, water recreation						
G[(1)]	Office / professional, government, medical / dental, commercial, retail, laboratories						
H[(1)]	Industrial, manufacturing, utilities, agriculture, mining, stables, ranching, warehouse, maintenance / repair						

ACCEPTABLE – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE – New construction or development should be undertaken only after a detailed noise analysis is conducted to determine if noise reduction measures are necessary to achieve acceptable levels for land use. Criteria for determining exterior and interior noise levels are listed in Table 2.11-5, San Diego County Noise Standards. If a project cannot mitigate noise to a level deemed Acceptable, the appropriate county decision-maker must determine that mitigation has been provided to the greatest extent practicable or that extraordinary circumstances exist.

UNACCEPTABLE – New construction or development shall not be undertaken.

(1) Denotes facilities used for part of the day; therefore, an hourly standard would be used rather than CNEL (see Table 2.11-5)
Note: For projects located within an Airport Influence Area of an adopted ALUCP, additional Noise Compatibility Criteria restrictions may apply as specified in the ALUCP.

Table 2.11-5 San Diego County Noise Standards

1.	The exterior noise level (as defined in Item 3) standard for Category A shall be 60 CNEL, and the interior noise level standard for indoor habitable rooms shall be 45 CNEL.
2.	The exterior noise level standard for Categories B and C shall be 65 CNEL, and the interior noise level standard for indoor habitable rooms shall be 45 CNEL.
3.	The exterior noise level standard for Categories D and G shall be 65 CNEL and the interior noise level standard shall be 50 dBA L_{eq} (one hour average).
4.	For single-family detached dwelling unit s, “exterior noise level” is defined as the noise level measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum net lot area: (i) for lots less than 4,000 square feet in area, the exterior area shall include 400 square feet, (ii) for lots between 4,000 square feet to 10 acres in area, the exterior area shall include 10 percent of the lot area; (iii) for lots over 10 acres in area, the exterior area shall include 1 acre.
5.	For all other residential land uses, "exterior noise level" is defined as noise measured at exterior areas which are provided for private or group usable open space purposes. “Private Usable Open Space” is defined as usable open space intended for use of occupants of one dwelling unit, normally including yards, decks, and balconies. When the noise limit for Private Usable Open Space cannot be met, then a Group Usable Open Space that meets the exterior noise level standard shall be provided. “Group Usable Open Space” is defined as usable open space intended for common use by occupants of a development, either privately owned and maintained or dedicated to a public agency, normally including swimming pools, recreation courts, patios, open landscaped areas, and greenbelts with pedestrian walkways and equestrian and bicycle trails, but not including off-street parking and loading areas or driveways.
6.	For non-residential noise sensitive land uses, exterior noise level is defined as noise measured at the exterior area provided for public use.
7.	For noise sensitive land uses where people normally do not sleep at night, the exterior and interior noise standard may be measured using either CNEL or the one-hour average noise level determined at the loudest hour during the period when the facility is normally occupied.
8.	The exterior noise standard does not apply for land uses where no exterior use area is proposed or necessary, such as a library.
9.	For Categories E and F the exterior noise level standard shall not exceed the limit defined as “Acceptable” in Table 2.11-4 or an equivalent one-hour noise standard.

Note: Exterior Noise Level compatibility guidelines for Land Use Categories A-H are identified in Table 2.11-4, Noise Compatibility Guidelines.

Table 2.11-6 PSR Land Uses within Future Roadway Noise Contours that Exceed Noise Compatibility Guidelines

PSR Analysis Area	Land Use	Total PSR Analysis Area (Acres)	PSR Analysis Area Within Contour (Acres)
BO18+	Semi-Rural Residential	921	454
DS24	Semi-Rural Residential	169	1
FB2+	Rural Residential	391	59
	Semi-Rural Residential	100	14
	FB2+ subtotal:	*491*	*73*
FB17	Semi-Rural Residential	107	28
FB19+	Semi-Rural Residential	579	299
ME30A	Rural Residential	262	7
NC22	Semi-Rural Residential	154	13
NC3A	Semi-Rural Residential	1,015	3
PP30	Semi-Rural Residential	518	5
SD15	General Commercial	69	2
VC7+	Semi-Rural Residential	1,465	123
VC51	Semi-Rural Residential	166	4
VC57+	Semi-Rural Residential	1,337	105
VC67	Semi-Rural Residential	13	5
CG1-8	Rural Commercial	5	5
	Semi-Rural Residential	110	110
	CG subtotal:	*115*	*115*
	Total:		**1,237**

Source: SanGIS 2016

Table 2.11-7 Typical Extraction Equipment Noise Levels

Description	Distance from Source (feet)	Hourly L_{eq} (dBA)
Aggregate Washing Plant	50	75
Asphalt Plant	50	82
Bridge Saw	50	78
Bulldozer	50	81
Concrete Batch Plant	50	81
Diamond Wire Block Saw	50	68
Drill Rig	50	85
Front End Loader	50	72
Hydraulic Excavator	50	77
Motor Grader	50	91
Power Screen	50	76
Power Shovel	50	75
Rock Crusher	50	75
Wheel Polisher	50	50

Source: Harris 2016 (Appendix D to this SEIR)

Table 2.11-8 Significance Threshold for Groundborne Vibration and Noise Impacts

Land Use Category	Groundborne Vibration Impact Levels (in/sec RMS)		Groundborne Noise Impact Levels (dB re 20 micro Pascals)	
	Frequent Events[1]	Occasional or Infrequent Events[2]	Frequent Events[1]	Occasional or Infrequent Events[2]
Category 1: Buildings where low ambient vibration is essential for interior operations (research & manufacturing facilities with special vibration constraints)[3]	0.0018[4]	0.0018[4]	Not Applicable[5]	Not Applicable[5]
Category 2: Residences and buildings where people normally sleep (hotels, hospitals, residences, & other sleeping facilities)[6]	0.0040	0.010	35 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use (schools, churches, libraries, other institutions, & quiet offices)[6]	0.0056	0.014	40 dBA	48 dBA

(1) "Frequent Events" is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.
(2) "Occasional or Infrequent Events" are defined as fewer than 70 vibration events per day. This combined category includes most commuter rail systems.
(3) Vibration-sensitive equipment is not sensitive to groundborne noise.
(4) This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration sensitive manufacturing or research will require detailed evaluation to define acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the heating, ventilating, and air conditioning systems and stiffened floors.
(5) There are some buildings, such as concert halls, TV and recording studios, and theaters that can be very sensitive to vibration and noise but do not fit into any of the three categories. Table 2.11-9 gives criteria for acceptable levels of groundborne vibration and noise for these various types of special uses.
(6) For Categories 2 and 3 with occupied facilities, isolated events such as blasting are significant when the peak particle velocity exceeds one inch per second. Non-transportation vibration sources such as impact pile drivers or hydraulic breakers are significant when their peak particle velocity exceeds 0.1 inch per second. More specific criteria for structures and potential annoyance were developed by Caltrans (2004) and will be used to evaluate these continuous or transient sources in San Diego County.

in/sec RMS = inches per second root mean square
Source: FTA 2006

Table 2.11-9 Significance Threshold for Groundborne Vibration and Noise Impacts for Special Buildings

Type of Building or Room	Groundborne Vibration Impact Levels (in/sec RMS)		Groundborne Noise Impact Levels (dB re 20 micro Pascals)	
	Frequent Events[1]	Occasional or Infrequent Events[2]	Frequent Events[1]	Occasional or Infrequent Events[2]
Concert Halls, TV Studios, and Recording Studios	0.0018	0.0018	25 dBA	25 dBA
Auditoriums	0.0040	0.010	30 dBA	38 dBA
Theaters	0.0040	0.010	35 dBA	43 dBA

(1) "Frequent Events" is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category
(2) "Occasional or Infrequent Events" are defined as fewer than 70 vibration events per day. This combined category includes most commuter rail systems.

in/sec RMS = inches per second root mean square
Source: FTA 2006

Table 2.11-10 Typical Levels of Groundborne Vibration

Vibration Level (in/sec RMS)	Typical Sources (50 feet from Source)	Human/Structural Response
0.01	Blasting from construction projects	Threshold, minor cosmetic damage to fragile buildings
0.003-0.01	Bulldozers and other heavy tracked construction equipment	Difficulty with tasks such as reading
0.001-0.003	Commuter rail and rapid transit, upper range	Residential annoyance, infrequent events (e.g. commuter rail)
0.0003-0.001	Typical commuter rail, bus or truck over bump, typical rapid transit	Residential annoyance, frequent events (e.g. rapid transit)
0.0001-0.0003	Typical bus or truck	Limit for vibration sensitive equipment. Approximate threshold for human perception
0.00003	Typical background vibration	Not detectable

in/sec RMS = inches per second root mean square
Source: Harris 2016 (Appendix D to this SEIR)

Table 2.11-11 San Diego County Noise Ordinance Sound Level Limits

Zone	Time	One-Hour Average Sound Level Limits (dBA)
(1) R-S, R-D, R-R, R-MH, A-70, A-72, S-80, S-81, S-87, S-90, S-92 and R-V and R-U with a density of less than 11 dwelling units per acre.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	50 45
(2) R-RO, R-C, R-M, S-86, V5 and R-V and R-U with a density of 11 or more dwelling units per acre.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	55 50
(3) S-94, V4 and all other commercial zones.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	60 55
(4) V1, V2 V1, V2 V1 V2	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m. 10 p.m. to 7 a.m.	60 55 55 50
V3	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	70 65
(5) M-50, M-52 and M-54	Anytime	70
(6) S-82, M-56 and M-58	Anytime	75
(7) S88 (see note 3 below)		

Notes:
1. If the measured ambient level exceeds the applicable limit noted above, the allowable one hour average sound level shall be the ambient noise level, plus 3 dBA. The ambient noise level shall be measured when the alleged noise violation source is not operating.
2. The sound level limit at a location on a boundary between two zones is the arithmetic mean of the respective limits for the two zones; provided however, that the one-hour average sound level limit applicable to extractive industries, including but not limited to borrow pits and mines, shall be 75 dBA at the property line regardless of the zone which the extractive industry is actually located.
3. S88 zones are Specific Planning Area s which allow for different uses. The sound level limits in Table 36.404 above that apply in an S88 zone depend on the use being made of the property. The limits in Table 36.404, subsection (1) apply to property with a residential, agricultural or civic use. The limits in subsection (3) apply to property with a commercial use. The limits in subsection (5) apply to property with an industrial use that would only be allowed in an M50, M52 or M54 zone. The limits in subsection (6) apply to all property with an extractive use or a use that would only be allowed in an M56 or M58 zone.
4. A fixed-location public utility distribution or transmission facility located on or adjacent to a property line shall be subject to the sound level limits of this section, measured at or beyond six feet from the boundary of the easement upon which the facility is located.

Source: Harris 2016 (Appendix D to this SEIR)

Table 2.11-12 Maximum Sound Level (Impulsive) Measured at Occupied Property

Occupied Property Use	Decibels (dBA)
Residential, village zoning or civic use	82
Agricultural, commercial or industrial use	85

Source: Harris 2016 (Appendix D to this SEIR)

Table 2.11-13 Maximum Sound Level (Impulsive) Measured at Occupied Properties for Public Road Projects

Occupied Property Use	Decibels (dBA)
Residential, village zoning or civic use	85
Agricultural, commercial or industrial use	90

Source: Harris 2016 (Appendix D to this SEIR)

Table 2.11-14 Noise Level Increases on Heaviest-Impacted Roadways

CPA/Subregion	Roadway	Segment	Current GP Buildout (CNEL)	+PSR (CNEL*)	Δ
Julian	Wynola Road	SR-78 to unknown road	51	55	+4
Julian	Wynola Road	Unknown road to Farmer Road	56	58	+2
Julian	Wynola Road	Farmer Road to SR-78	56	58	+2
San Dieguito	Avenida Del Diablo	Harmony Grove Rd to Citracado Parkway	65	65	0
North County Metro	Idaho Avenue	San Pasqual Valley Road to zone connector	61	62	+1
Ramona	Julian Road	Julian Bridge to public road	61	63	+2
Ramona	Julian Road	Public road to Ramona Trails	61	63	+2
Ramona	Julian Road	Ramona Trails to zone connector	61	63	+2
Ramona	Julian Road	Zone connector to Sutherland	60	62	+2
Ramona	Julian Road	Sutherland to unknown road	54	58	+4
Ramona	Julian Road	Unknown road to Old Julian Highway	54	58	+4
North Mountain	Montezuma Valley Road	San Felipe Road to Grapevine Canyon	63	64	+1
North Mountain	Montezuma Valley Road	Grapevine Canyon to unknown road	63	64	+1
Desert	Montezuma Valley Road	Unknown road to Palm Canyon Drive	63	64	+1
Desert	Palm Canyon Drive	Montezuma Valley Road to unknown road	65	66	+1
North Mountain	San Felipe Road	SR-79 to Camino San Ignacio	63	64	+1
North Mountain	San Felipe Road	Camino San Ignacio to Montezuma Valley Road	64	64	0
Desert	SR-78	Unknown road to SC 860	60	62	+2
North Mountain	SR-78	SC 860 to Great South Overland Stage Route	60	61	+1
North Mountain	SR-78	Great Southern Overland Stage Route to San Felipe Road	60	62	+2
Desert	SR-78	San Felipe Rd to Yaqui Pass Rd	62	63	+1
Julian	SR-78	Wynola Road to unknown road	60	62	+2
Julian	Julian Bridge	Julian Road to Old Julian Highway	65	65	0
Desert	Yaqui Pass Road	Rams Hill to unknown road	**59**	**61**	**+2**
Desert	Yaqui Pass Road	Unknown road to unknown road	**59**	**61**	**+2**
Desert	Yaqui Pass Road	Unknown road to SR-78	**59**	**61**	**+2**
North County Metro	Buena Creek Road	Fredas Hill to Las Posas Road	74	74	0
North County Metro	Deer Springs Road	Mulberry to Marilyn	83	83	0
North County Metro	Deer Springs Road	Marilyn to unknown road	84	84	0
North County Metro	Deer Springs Road	Unknown road to unknown road	84	84	0
North County Metro	Deer Springs Road	Unknown road to unknown road	**83**	**84**	**+1**
Bonsall	West Lilac Road	Old Highway 395 to unknown road	**67**	**69**	**+2**
Bonsall	West Lilac Road	Unknown road to Shirley	67	68	+1
Valley Center	West Lilac Road	Shirley to Lilac Road	67	68	+1
Valley Center	West Lilac Road	Lilac Road to unknown road	**66**	**68**	**+2**

Notes: CNEL sound level at 50 feet from roadway centerline; results in **bold** indicate a significant impact. Model input and output provided in Appendix D to this SEIR.

Table 2.11-15 Typical Construction Equipment Noise Levels

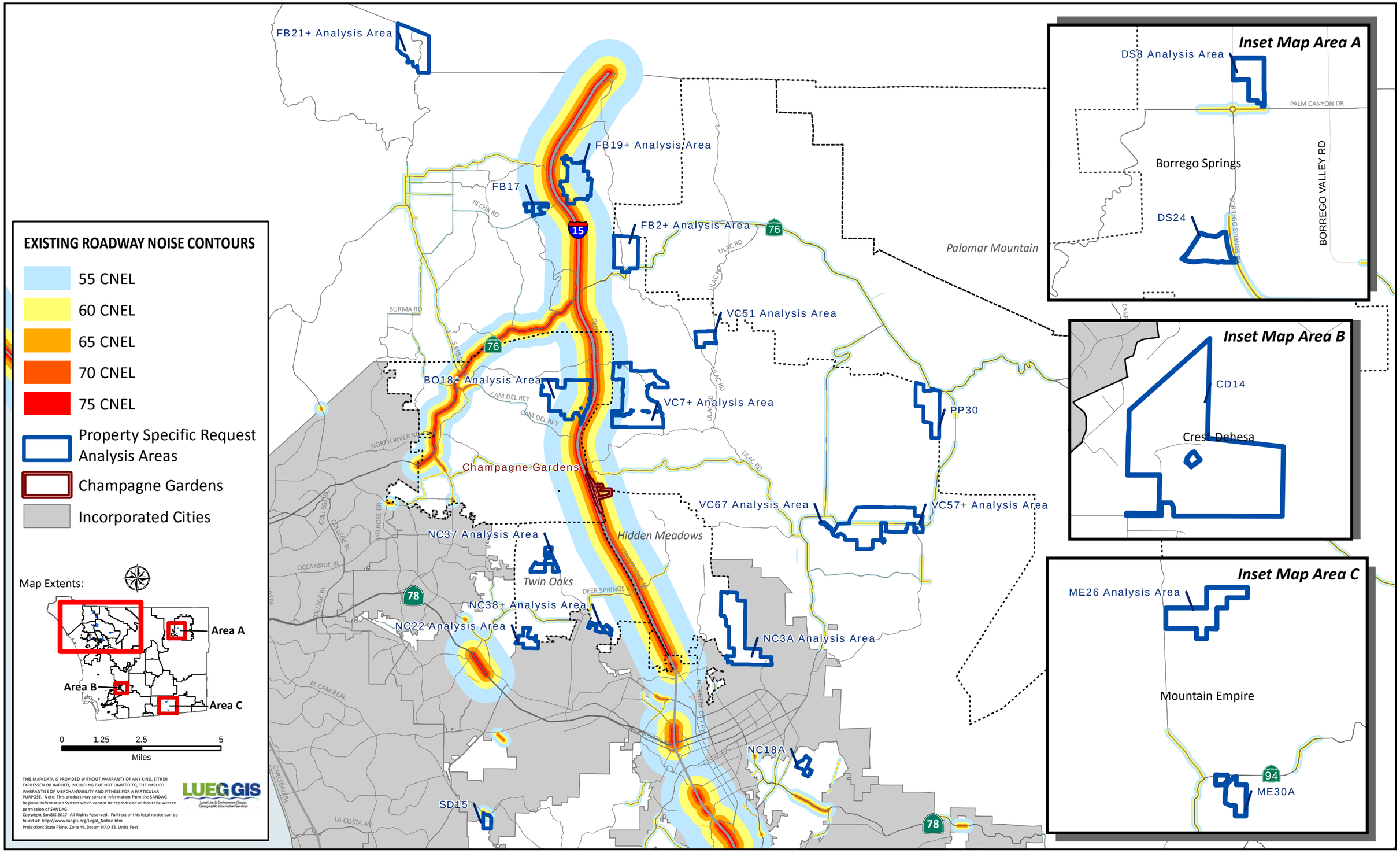
Equipment	Typical Noise Level (dBA) at 50 feet from source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Crane, Derrick	88
Dozer	85
Grader	85
Jack Hammer	88
Loader	85
Paver	89
Pile-driver (impact)	101
Pump	76
Roller	74
Scraper	89
Truck	88

Source: Harris 2016 (Appendix D to this SEIR)

Table 2.11-16 Cumulative Noise Level Increases on Heaviest-Impacted Roadways

CPA / Subregion	Roadway	Segment	Current GP Buildout +GPAs (CNEL)	+PSR (CNEL)	Δ
Julian	Wynola Road	SR-78 to unknown road	55	56	+1
Julian	Wynola Road	Unknown road to Farmer Road	58	59	+1
Julian	Wynola Road	Farmer Road to SR-78	58	58	0
San Dieguito	Avenida Del Diablo	Harmony Grove Road to Citracado Parkway	65	66	+1
North County Metro	Idaho Avenue	San Pasqual Valley Road to zone connector	62	63	+1
Ramona	Julian Road	Julian Bridge to public road	62	62	0
Ramona	Julian Road	Public road to Ramona Trails	62	62	0
Ramona	Julian Road	Ramona Trails to zone connector	62	62	0
Ramona	Julian Road	Zone connector to Sutherland	60	60	0
Ramona	Julian Road	Sutherland to unknown road	56	56	0
Ramona	Julian Road	Unknown road to Old Julian Highway	56	56	0
North Mountain	Montezuma Valley Road	San Felipe Road to Grapevine Canyon	64	64	0
North Mountain	Montezuma Valley Road	Grapevine Canyon to unknown road	64	64	0
Desert	Montezuma Valley Road	Unknown road to Palm Canyon Drive	64	64	0
Desert	Palm Canyon Drive	Montezuma Valley Road to unknown road	66	66	0
North Mountain	San Felipe Road	SR-79 to Camino San Ignacio	64	64	0
North Mountain	San Felipe Road	Camino San Ignacio to Montezuma Valley Road	65	65	0
Desert	SR-78	Unknown road to SC 860	62	62	0
North Mountain	SR-78	SC 860 to Great South Overland Stage Route	63	64	+1
North Mountain	SR-78	Great Southern Overland Stage Route to San Felipe Road	64	64	0
Desert	SR-78	San Felipe Rd to Yaqui Pass Rd	64	64	0
Julian	SR-78	Wynola Road to unknown road	63	64	+1
Julian	Julian Bridge	Julian Road to Old Julian Highway	66	66	0
Desert	Yaqui Pass Road	Rams Hill to unknown road	61	61	0
Desert	Yaqui Pass Road	Unknown road to unknown road	61	61	0
Desert	Yaqui Pass Road	Unknown road to SR-78	61	61	0
North County Metro	Buena Creek Road	Fredas Hill to Las Posas Road	**74**	**75**	**+1**
North County Metro	Deer Springs Road	Mulberry to Marilyn	**83**	**84**	**+1**
North County Metro	Deer Springs Road	Marilyn to unknown road	**84**	**85**	**+1**
North County Metro	Deer Springs Road	Unknown road to unknown road	**84**	**85**	**+1**
North County Metro	Deer Springs Road	Unknown road to unknown road	**84**	**85**	**+1**
Bonsall	West Lilac Road	Old Highway 395 to unknown road	**69**	**71**	**+2**
Bonsall	West Lilac Road	Unknown road to Shirley	**69**	**71**	**+2**
Valley Center	West Lilac Road	Shirley to Lilac Road	69	69	0
Valley Center	West Lilac Road	Lilac Road to unknown road	68	68	0

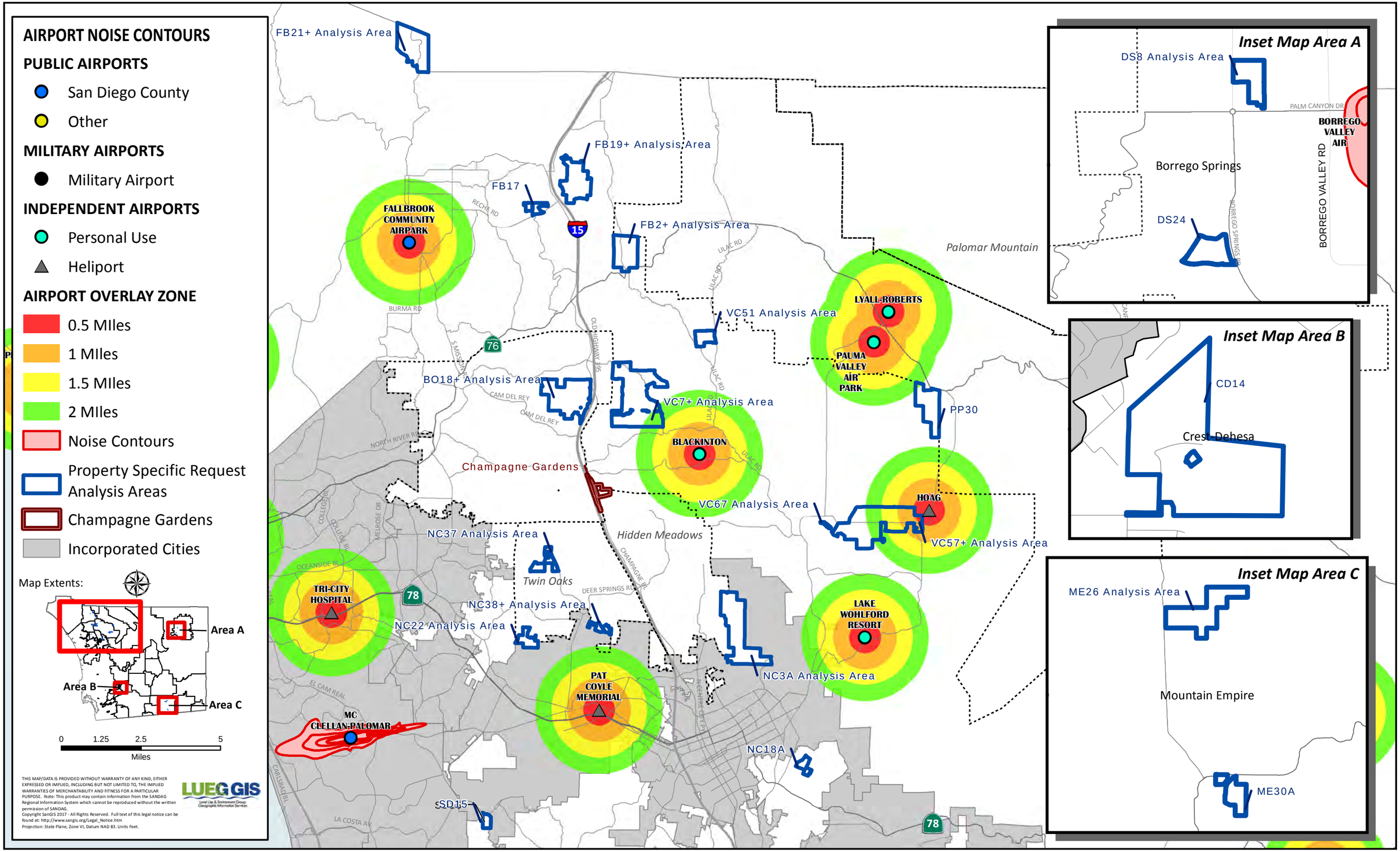
Notes: CNEL sound level at 50 feet from roadway centerline; results in **bold** indicate a significant impact. Model input and output provided in Appendix D to this SEIR.



Source: SanGIS, County of San Diego, 2017

Existing Roadway Noise Contours

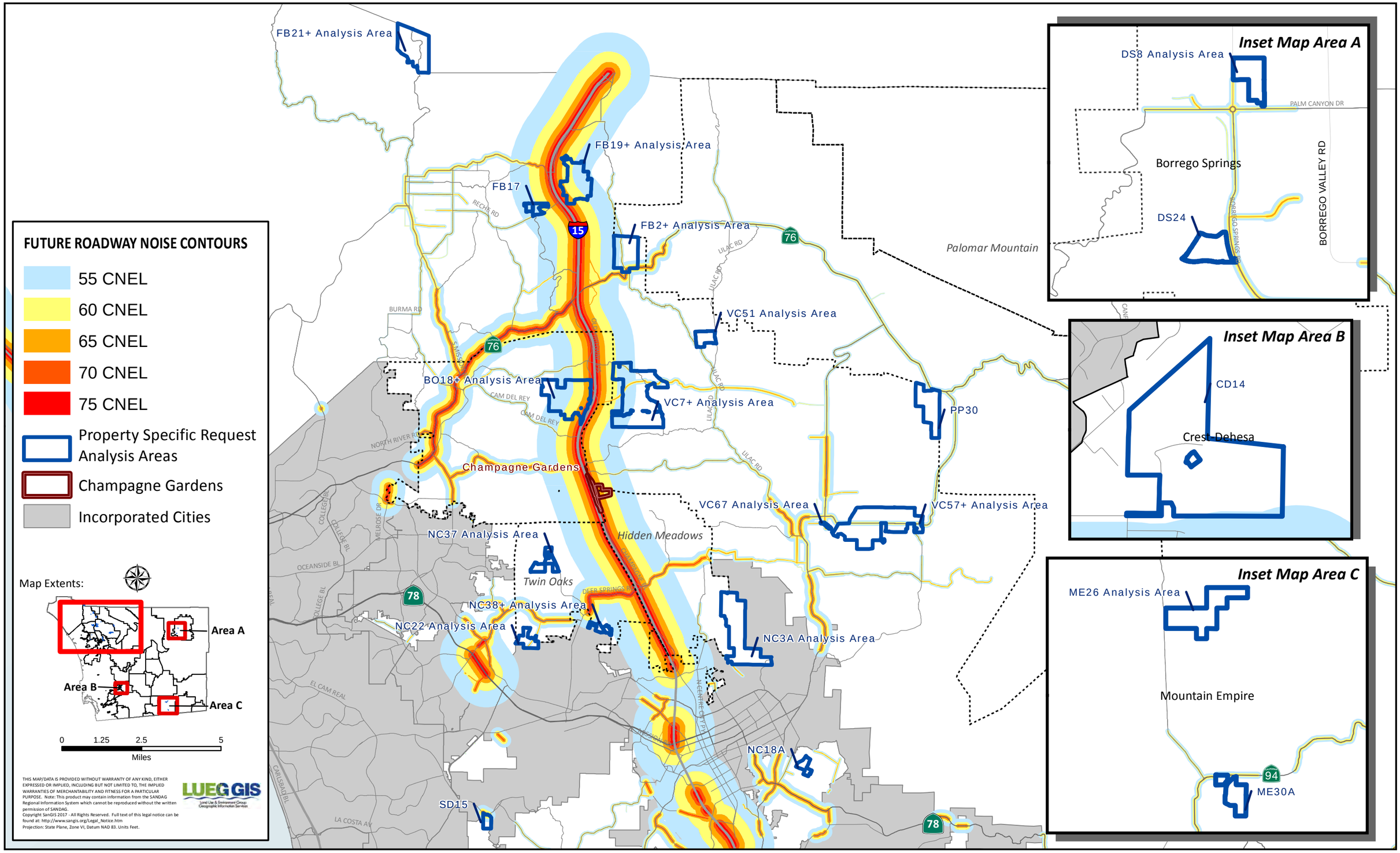
Figure 2.11-1



Source: SanGIS, County of San Diego, 2017

Airport Noise Contours

Figure 2.11-2



Source: SanGIS, County of San Diego, 2017

Future Roadway Noise Contours

Figure 2.11-3

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