

4.12 NOISE

4.12.1 Introduction

This section evaluates the impacts of the General Plan Update associated with noise within the City of Simi Valley. This section describes the existing noise environment within and around the City and the potential for significant increases in noise and groundborne vibration levels due to implementation of the General Plan Update. Data for this section were developed based on field investigations to measure existing noise levels, a review of current noise standards, and noise assessment methodologies, including the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction model and others contained in the Federal Transit Administration's Transit Noise and Impact Assessment document. Potential direct and indirect impacts resulting from construction and operational activities associated with implementation of the General Plan Update are identified, and potential mitigation measures that could avoid or reduce impacts are recommended, where feasible.

No comment letters regarding noise were received in response to the December 1, 2009, Notice of Preparation circulated for the General Plan Update. Full bibliographic entries for all reference materials are provided in Section 4.12.6 (References) of this section.

4.12.2 Environmental Setting

■ Fundamentals of Sound and Environmental Noise

Sound is created when vibrating objects produce pressure variations that move rapidly outward into the surrounding air, and it is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Because the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady "background" noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway. Table 4.12-1 (Representative Environmental Noise Levels) lists representative noise levels for the environment.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of

Table 4.12-1 Representative Environmental Noise Levels

<i>Common Outdoor Activities</i>	<i>Noise Level (dBA)</i>	<i>Common Indoor Activities</i>
Power Saw	—110—	Rock Band
Jet Fly-over at 100 feet		Crying Baby
Subway	—100—	
Gas Lawnmower at 3 feet		
Tractor	—90—	
		Food Blender at 3 feet
Diesel Truck going 50 mph at 50 feet	—80—	Garbage Disposal at 3 feet
Noisy Urban Area during Daytime		
Gas Lawnmower at 100 feet	—70—	Vacuum Cleaner at 10 feet
Commercial Area		Normal Speech at 3 feet
Heavy Traffic at 300 feet	—60—	Sewing Machine
Air Conditioner		Large Business Office
Quiet Urban Area during Daytime	—50—	Dishwasher in Next Room
		Refrigerator
Quiet Urban Area during Nighttime	—40—	Theater, Large Conference Room (background)
Quiet Suburban Area during Nighttime		
	—30—	Library
Quiet Rural Area during Nighttime		Bedroom at Night, Concert Hall (background)
	—20—	
		Broadcast/Recording Studio
	—10—	
Lowest Threshold of Human Hearing	—0—	Lowest Threshold of Human Hearing

SOURCE: California Department of Transportation, Noise, Air Quality, and Hazardous Waste Management Office, *Technical Noise Supplement* (October 1998), p. 18.

day when the noise occurs. The L_{eq} is a measure of ambient noise, while the L_{dn} is a measure of community noise. Each is applicable to this analysis and defined as follows:

- L_{eq} , the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- L_{dn} , the Day-Night Average Level, is a 24-hour average L_{eq} with a 10 dBA “weighting” added to noise during the hours of 10:00 PM to 7:00 AM to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .

- L_{min} , the minimum instantaneous noise level experienced during a given period of time.
- L_{max} , the maximum instantaneous noise level experienced during a given period of time.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night, or over a 24-hour period. Environmental noise levels are generally considered low when the L_{dn} is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings that can provide noise levels as low as 20 dBA and quiet, suburban, residential streets that provide noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most would accept the higher levels associated with more noisy urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA).

When evaluating changes in 24-hour community noise levels, a difference of 3 dBA is a barely perceptible increase to most people. A 5 dBA increase is readily noticeable, while a difference of 10 dBA would be perceived as a doubling of loudness.

Noise levels from a particular source decline as distance to the receptor increases. Other factors, such as the weather and reflecting or shielding, also intensify or reduce the noise level at a location. A common method for estimating roadway noise is that for every doubling of distance from the source, the noise level is reduced by about 3 dBA at acoustically “hard” locations (i.e., the area between the noise source and the receptor is nearly complete asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically “soft” locations (i.e., the area between the source and receptor is normal earth or has vegetation, such as grass).

Noise from stationary or point sources (including construction noise) is reduced by about 6 to 7.5 dBA for every doubling of distance at acoustically hard and soft locations, respectively. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more (HMMH 2006).

■ Existing Noise Environment

Land uses within the Simi Valley Planning Area include a range of residential, commercial, institutional, industrial, recreational, and open space areas. In general, there are four distinct major sources of noise throughout the Simi Valley Planning Area; the Ronald Reagan Freeway (State Route 118 [SR-118]), major and minor arterial roads, a Union Pacific Company railroad line that is used for freight, and by Metrolink and Amtrak, and various stationary sources such as commercial heating, ventilation, and air conditioning units (HVAC).

Mobile Sources

As with most urban and suburban environments, the primary noise sources in the Simi Valley Planning Area are mobile sources, which would include vehicles along roadways, train pass-bys and other transportation related noises. SR-118 traverses the City in the east/west direction and is generally elevated with respect to adjacent developed areas. The majority of adjacent development along the freeway is residential land uses, with some areas protected by sound walls.

Traffic noise along surface streets constitutes another major source of community noise within the Simi Valley Planning Area. Noise levels along roadways are affected by several traffic characteristics, most important being the average daily traffic (ADT). Other factors that affect roadway noise levels include the vehicle mix of trucks versus automobiles, road conditions, vehicle speed, and the gradient of the roadway. The major east/west roadways in the Simi Valley Planning Area include Los Angeles Avenue, Cochran Street, and Royal Avenue. The major north/south roadways include Madera Road, First Street, Erringer Road, Sycamore Drive, Tapo Canyon Road, Tapo Street, Yosemite Avenue, and Kuehner Drive. In general these roadways have commercial or residential land uses with some sound reducing mitigation measures incorporated into the design. The mitigation measures would include sound walls and setbacks from the roadways.

The Union Pacific Company maintains a railroad that runs east to west through the community. This line is shared by Amtrak and Metrolink and connects Simi Valley with downtown Los Angeles, the San Fernando Valley, Burbank Airport and numerous other stops along the way. The Amtrak Station in Simi Valley is located at 5000 Los Angeles Avenue, just west of Stearns Street. The rail line enters the Simi Valley Planning Area from the Santa Susana Knolls area and continues in a west-northwest direction until it intersects with Los Angeles Avenue. The rail line then parallels Los Angeles Avenue until just west of Erringer Road. The line continues in a northwestern direction roughly parallel to Easy Street until it exits the City from the west. At the present time, Union Pacific Company does not disclose the number of freight trips that occur on a daily basis.

Metrolink also provides passenger service to Simi Valley at the Amtrak Station. The Ventura County Line operates six trains in the morning hours and two trains in the evening hours to Los Angeles and six trains in the evening hours and two trains in the morning hours from Los Angeles on weekdays. The City is also served by two Amtrak train routes, the Pacific Surfliner and the Coast Starlight. Ten Pacific Surfliner trains and two Coast Starlight trains serve the station daily. Additionally, the Union Pacific Transportation Company provides daily intra-state and trans-continental rail freight service from its coastline, which runs from the Santa Barbara County line through the cities of Ventura, Oxnard, Camarillo, Moorpark, and finally Simi Valley to the Los Angeles County line.

The rail line traverses land uses containing industrial, commercial, and residential land uses. Throughout the easternmost part of the City, the line is located along a hillside where residents to the south are below the line of sight of the tracks, and residents to the north are below the elevation of the track. As such, train noise is attenuated in these areas so as not to create any noise impacts. West of Stearns Street the track is roughly the same elevation of surrounding land uses. Most areas where the rail line is at the same or higher elevation than surrounding residential uses have some form of noise reducing mitigation in the form of a noise barrier or a large setback from the track, which serves to reduce impacts from train noise.

Stationary Sources

Stationary sources of noise within the Simi Valley Planning Area include heating and ventilation units (HVAC) for commercial and multi-family residential buildings, as well as air compressors, generators, outdoor loudspeakers and gas venting. Additional stationary sources that can cause human annoyance would be individual and group activities at public parks and private entertainment facilities. Many of the parks within the Simi Valley Planning Area have facilities for organized sports including baseball, soccer, and basketball and noise from these activities can have a negative impact on neighboring residential land uses.

Sometimes nighttime activities, particularly those located within commercial areas, such as nightclubs, bars, etc., generate noise levels that disturb nearby residents when they are trying to sleep and result in complaints filed with the Police Department. Residences throughout the Planning Area are also known to occasionally generate noise from parties that result in complaints filed with the local authorities.

■ **Existing Noise Levels**

Measured Noise Levels

Existing ambient daytime noise levels were measured at eight selected locations on February 10, 2010, in order to identify representative noise levels in various areas of the Simi Valley Planning Area, including near the Simi Valley Landfill entrance, areas adjacent or close to SR-118, and the train tracks. These locations were identified as unique noise generators within the Simi Valley Planning Area, due to the high volume of traffic, large truck trips generated and train noise generated in these areas. The noise monitoring locations are identified in Figure 4.12-1 (Noise Measurement Locations).

The noise levels were monitored using a Larson-Davis Model 814 precision sound level meter, which satisfies the American National Standards Institute (ANSI) for general environmental noise measurement instrumentation. The average noise levels and sources of noise measured at each location are identified in Table 4.12-2 (Existing Daytime Noise Levels at Selected Locations). As shown, the primary source of noise at all the monitoring locations was traffic noise. The average noise level measurements (the L_{eq}) represent Commercial to Noisy Urban noise levels as described in Table 4.12-1, and are consistent with urban residential noise levels, with the loudest average noise levels were found along SR-118 or major arterials, such as Cochran. However, it should be noted that the L_{min} at Location 2 is more representative of a quiet suburban area. This monitoring location was outside of the center of the City and located away from major arterials, which illustrates the intrusion that can be caused by vehicle traffic in residential areas.

Roadway Noise Levels

Existing 24-hour noise levels have been calculated for various highways and roadways throughout the Simi Valley Planning Area. This was accomplished using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. In order to more accurately represent roadway noise levels, the average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates

Table 4.12-2 Existing Daytime Noise Levels at Selected Locations

Noise Measurement Locations	Primary Noise Sources	Noise Level Statistics		
		<i>L_{eq}</i>	<i>L_{min}</i>	<i>L_{max}</i>
1. Viewline Drive between Madera Road and 118 Freeway Ramps (Adjacent the Simi Landfill Entrance)	Traffic, freeway noise	70.7	61.2	85.8
2. Wood Ranch Parkway between Vista Creek Circle and Martha Morrison Drive	Traffic, yard care equipment	65.4	47.3	84.0
3. First Street between Dennis Avenue and Royal Avenue	Traffic, truck backfired	70.3	47.2	96.3
4. Cochran Street between Fernview Street and Justin Avenue	Traffic	74.2	50.3	87.0
5. Sycamore Drive between Cochran Street and 118 Freeway Ramps	Traffic	71.9	53.6	88.7
6. Kadota Street between 118 Freeway and Barnard Street	Freeway noise	61.6	51.8	75.8
7. Tapo Canyon Road south of Los Angeles Avenue (Adjacent train tracks)	Traffic	68.0	53.7	81.9
8. Santa Susana Pass Road between Clear Spring Road and Katherine Road (Adjacent train tracks)	Traffic	63.9	37.5	77.8

SOURCE: Atkins (February 10, 2010) (noise monitoring records are provided in Appendix E).

identified for California by Caltrans (Hendricks 1998). The Caltrans data show that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels (Hendricks 1998).

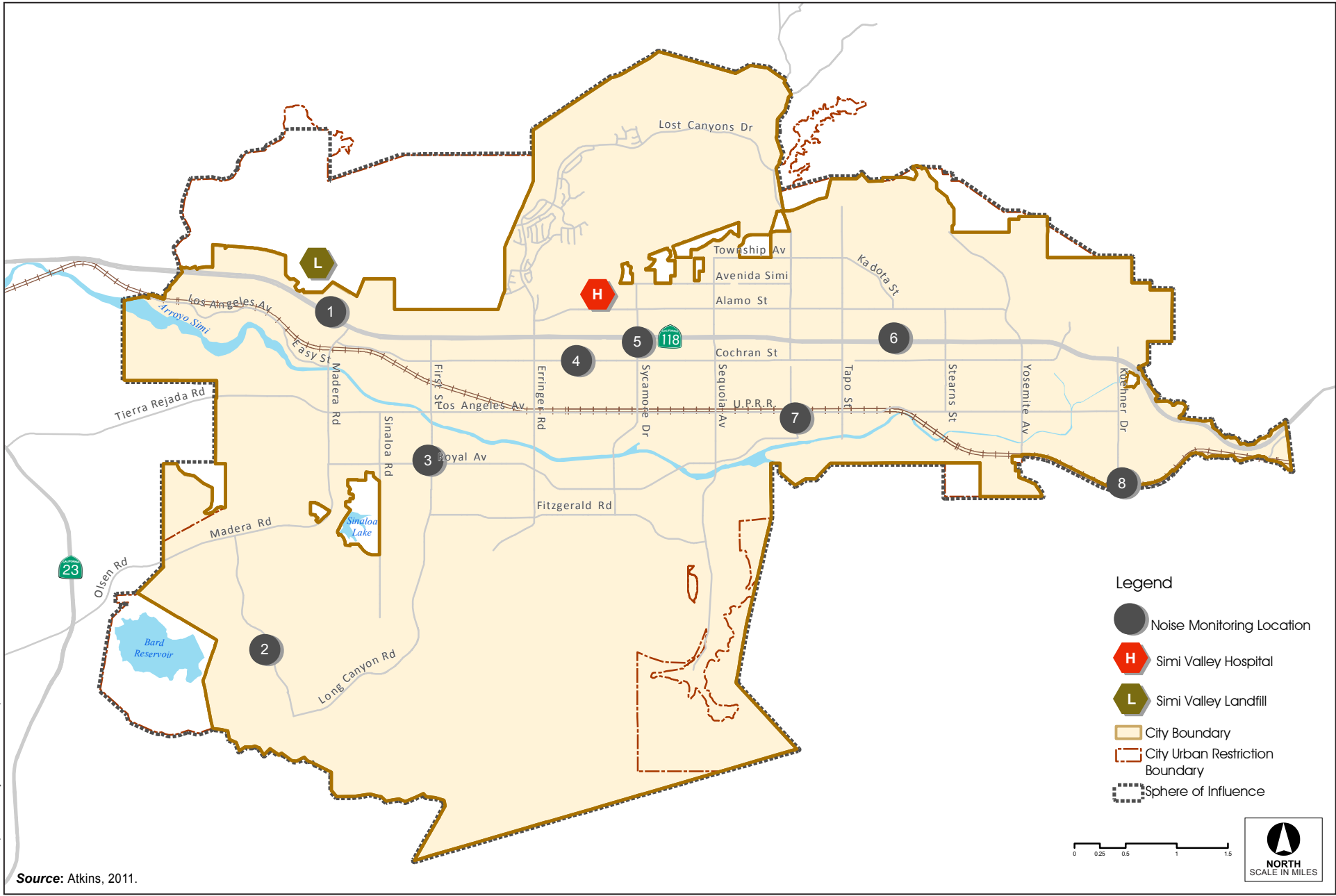
Noise levels were modeled for roadways with the highest traffic volumes within and immediately outside of the Simi Valley Planning Area, using data from the Traffic Study prepared by Iteris. The noise contours have also been illustrated on Figure 4.12-2 (Existing Roadway Noise Contours). The calculated noise levels are presented in Table 4.12-3 (Existing Roadway Noise Levels) along with the distances to various noise level contours.

Noise Levels Associated with Construction Activities in the Planning Area

Construction activities are a regular and ongoing source of noise throughout the Planning Area. The noise levels generated by construction activities are generally isolated to the immediate vicinity of the construction site and occur during daytime hours in accordance with City regulations (discussed below). Construction activities also occur for relatively short-term periods of a few weeks to a few months, and then, the noise sources are removed from the construction area.

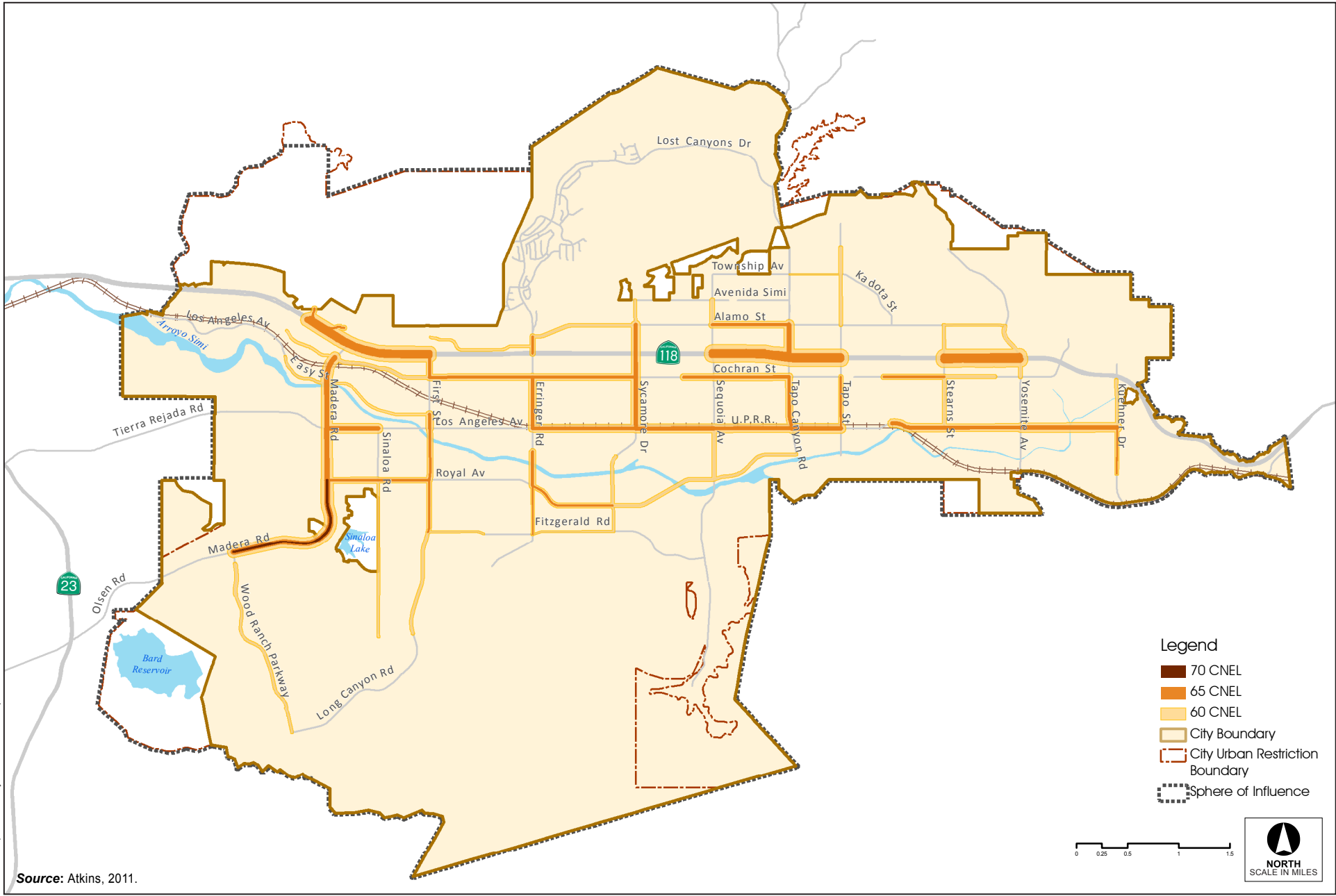
Sensitive Land Uses

Sensitive land uses are those uses that have associated human activities that may be subject to stress or significant interference from noise such as residences, schools, childcare centers, hospitals, long-term health care facilities, convalescent centers, and retirement homes. Various standards have been developed to address the compatibility of land uses with noise levels. The applicable standards are presented in the following discussion. The standards place special emphasis on land uses that are considered to be sensitive to high noise levels.



Source: Atkins, 2011.

Figure 4.12-1
Noise Measurement Locations



Source: Atkins, 2011.

Figure 4.12-2
Existing Roadway Noise Contours

Table 4.12-3 Existing Roadway Noise Levels

Roadway Segment	Reference L_{dn} at 100 Feet ^a	Distance to Noise Contour ^b		
		70 L_{dn}	65 L_{dn}	60 L_{dn}
Alamo St—Erringer Rd to Sycamore Dr	60.4	—	49	106
Alamo St—Sycamore Dr to Sequoia Ave	62.8	—	72	154
Alamo St—Sequoia Ave to Tapo Canyon Rd	63.8	—	83	179
Alamo St—Tapo Canyon Rd to Tapo St	63.2	—	76	163
Alamo St—Tapo St to Stearns St	61.4	—	58	124
Alamo St—Stearns St to Yosemite Ave	59.6	—	—	95
Cochran St—West of Madera Rd	59.6	—	—	94
Cochran St—Madera Rd to First St	62.0	—	63	135
Cochran St—First St to Erringer Rd	64.0	—	86	185
Cochran St—Erringer Rd to Sycamore Dr	63.8	—	83	178
Cochran St—Sycamore Dr to Galena Ave	63.6	—	80	173
Cochran St—Galena Ave to Sequoia Ave	62.7	—	71	152
Cochran St—Sequoia Ave to Tapo Canyon Rd	64.3	—	90	194
Cochran St—Tapo Canyon Rd to Tapo St	63.7	—	82	176
Cochran St—Tapo St to Stearns St	62.6	—	69	150
Cochran St—Stearns St to Stow St	60.7	—	51	110
Cochran St—Stow St to Yosemite Ave	59.0	—	—	86
Cochran St—East of Yosemite Ave	54.5	—	—	—
Los Angeles Ave—Madera Rd to Sinaloa Rd	63.7	—	81	176
Los Angeles Ave—Sinaloa Rd to First St	63.8	—	84	180
Los Angeles Ave—First St to Erringer Rd	64.4	—	91	196
Los Angeles Ave—Erringer Rd to Sycamore Dr	64.8	—	97	209
Los Angeles Ave—Sycamore Dr to Sequoia Ave	64.5	—	93	200
Los Angeles Ave—Sequoia Ave to Tapo Canyon Rd	64.2	—	88	189
Los Angeles Ave—Tapo Canyon Rd to Tapo St	65.2	—	102	221
Los Angeles Ave—Tapo St to Stearns St	64.3	—	90	193
Los Angeles Ave—Stearns St to Stow St	63.6	—	81	174
Los Angeles Ave—Stow St to Yosemite Ave	62.1	—	64	138
Los Angeles Ave—Yosemite Ave to Rory Ln	64.7	—	95	205
Los Angeles Ave—Rory Ln to Kuehner Dr	64.8	—	97	209
Royal Ave—Madera Rd to Sinaloa Rd	64.6	—	94	203
Royal Ave—Sinaloa Rd to First St	64.0	—	86	186
Royal Ave—First St to Erringer Rd	64.2	—	89	191
Royal Ave—Erringer Rd to Sycamore Dr	63.3	—	78	167

Table 4.12-3 Existing Roadway Noise Levels

Roadway Segment	Reference L_{dn} at 100 Feet ^a	Distance to Noise Contour ¹		
		70 L_{dn}	65 L_{dn}	60 L_{dn}
Royal Ave—Sycamore Dr to Sequoia Ave	62.2	—	66	141
Royal Ave—Sequoia Ave to Tapo Canyon Rd	60.6	—	51	110
Fitzgerald Rd—First St to Hudspeth Ave	57.6	—	32	69
Fitzgerald Rd—Erringer Rd to Sycamore Dr	57.1	—	—	64
Fitzgerald Rd—Sycamore Dr to Sequoia Ave	53.9	—	—	39
Country Club Dr E—Madera Rd to Wood Ranch Pkwy	59.1	—	—	88
Country Club Dr W—Madera Rd to Wood Ranch Pkwy	61.1	—	55	118
Lake Park Dr N&S—East of Wood Ranch Pkwy (N)	52.6	—	—	32
Lake Park Dr N&S—East of Wood Ranch Pkwy (S)	53.4	—	—	36
Wood Ranch Pkwy—Madera Rd to Country Club Dr	60.2	—	—	103
Wood Ranch Pkwy—Country Club Dr to Lake Park Dr S	62.1	—	64	139
Wood Ranch Pkwy—Lake Park Dr S to Long Canyon Rd	61.1	—	55	119
Madera Rd—West City Limits to Country Club Dr W	68.9	84	181	391
Madera Rd—Country Club Dr W to Wood Ranch Pkwy	67.9	73	157	339
Madera Rd—Wood Ranch Pkwy to Country Club Dr E	68.3	77	165	356
Madera Rd—Vista Lago Dr to Royal Ave	68.1	75	161	346
Madera Rd—Royal Ave to Los Angeles Ave	66.1	55	118	254
Madera Rd—Los Angeles Ave to Easy St	66.1	—	119	256
Madera Rd—Easy St to Cochran St	66.4	—	123	266
Madera Rd—Cochran St to SR-118 Fwy	66.5	—	126	271
Madera Rd—North of View Line Dr	60.2	—	—	104
View Line Dr—SR-118 Fwy to Madera Rd	59.8	—	45	97
Tierra Rejada Rd—Friendly Village to Stargaze Pl	62.1	—	64	138
Tierra Rejada Rd—West of Madera Rd	64.0	—	86	186
Easy St—W Los Angeles Ave to Madera Rd	60.6	—	51	110
Easy St—Madera Rd to First St	57.6	—	32	69
Sinaloa Rd—Los Angeles Ave to Royal Ave	59.2	—	41	88
Sinaloa Rd—South of Royal Ave	59.6	—	44	94
First St—Town Center Dr to SR-118 Fwy	59.7	—	—	95
First St—SR-118 Fwy to Cochran St	64.4	—	91	196
First St—Cochran St to Easy St	65.5	—	108	233
First St—Easy St to Los Angeles Ave	65.1	—	101	217
First St—Los Angeles Ave to Royal Ave	64.6	—	94	202
First St—Royal Ave to Fitzgerald Rd	64.2	—	89	191

Table 4.12-3 Existing Roadway Noise Levels

Roadway Segment	Reference L_{dn} at 100 Feet ^a	Distance to Noise Contour ^b		
		70 L_{dn}	65 L_{dn}	60 L_{dn}
First St—Fitzgerald Road to Bluegrass St	62.3	—	66	141
Long Canyon Rd—Bluegrass St to Wood Ranch Pkwy	60.9	—	53	115
Erringer Rd—North of Legacy Drive	55.8	—	—	53
Erringer Rd—North of Alamo St	58.4	—	—	78
Erringer Rd—Alamo St to SR-118 Fwy	61.4	—	57	123
Erringer Rd—SR-118 Fwy to Cochran St	63.9	—	84	181
Erringer Rd—Cochran St to Los Angeles Ave	63.5	—	79	171
Erringer Rd—Los Angeles Ave to Royal Ave	62.7	—	70	151
Erringer Rd—Royal Ave to Fitzgerald Rd	59.6	—	43	94
Erringer Rd—South of Fitzgerald Rd	57.2	—	—	65
Sycamore Dr—North of Alamo St	58.0	—	—	74
Sycamore Dr—Alamo St to SR-118 Fwy	61.4	—	58	125
Sycamore Dr—SR-118 Fwy to Cochran St	62.1	—	64	138
Sycamore Dr—Cochran St to Los Angeles Ave	63.5	—	79	171
Sycamore Dr—Los Angeles Ave to Royal Ave	60.1	—	47	102
Sycamore Dr—Royal Ave to Fitzgerald Rd	57.8	—	—	72
Galena Ave—Alamo St to Cochran St	57.1	—	—	64
Sequoia Ave—North of Alamo St	55.8	—	—	53
Sequoia Ave—Alamo St to Cochran St	56.6	—	—	59
Sequoia Ave—Cochran St to Los Angeles Ave	59.2	—	—	89
Sequoia Ave—Los Angeles Ave to Royal Ave	59.7	—	—	95
Sequoia Ave—Royal Ave to Fitzgerald Rd	57.9	—	—	72
Tapo Canyon Rd—North of Presidio Dr	54.6	—	—	44
Tapo Canyon Rd—Township Ave to Alamo St	60.6	—	—	109
Tapo Canyon Rd—Alamo St to SR-118 Fwy	64.2	—	88	190
Tapo Canyon Rd—SR-118 Fwy to Cochran St	64.4	—	91	196
Tapo Canyon Rd—Cochran St to Los Angeles Ave	63.0	—	74	158
Tapo Canyon Rd—Los Angeles Ave to Royal Ave	62.4	—	67	143
Tapo Canyon Rd—Royal Ave to Guardian Way	55.0	—	—	46
Tapo St—Walnut St to Township Ave	59.4	—	—	92
Tapo St—Township Ave to Alamo St	61.4	—	58	125
Tapo St—Alamo St to Cochran St	61.4	—	57	124
Tapo St—Cochran St to Los Angeles Ave	61.6	—	60	129
Stearns St—Alamo St to SR-118 Fwy	60.1	—	—	101

Table 4.12-3 Existing Roadway Noise Levels

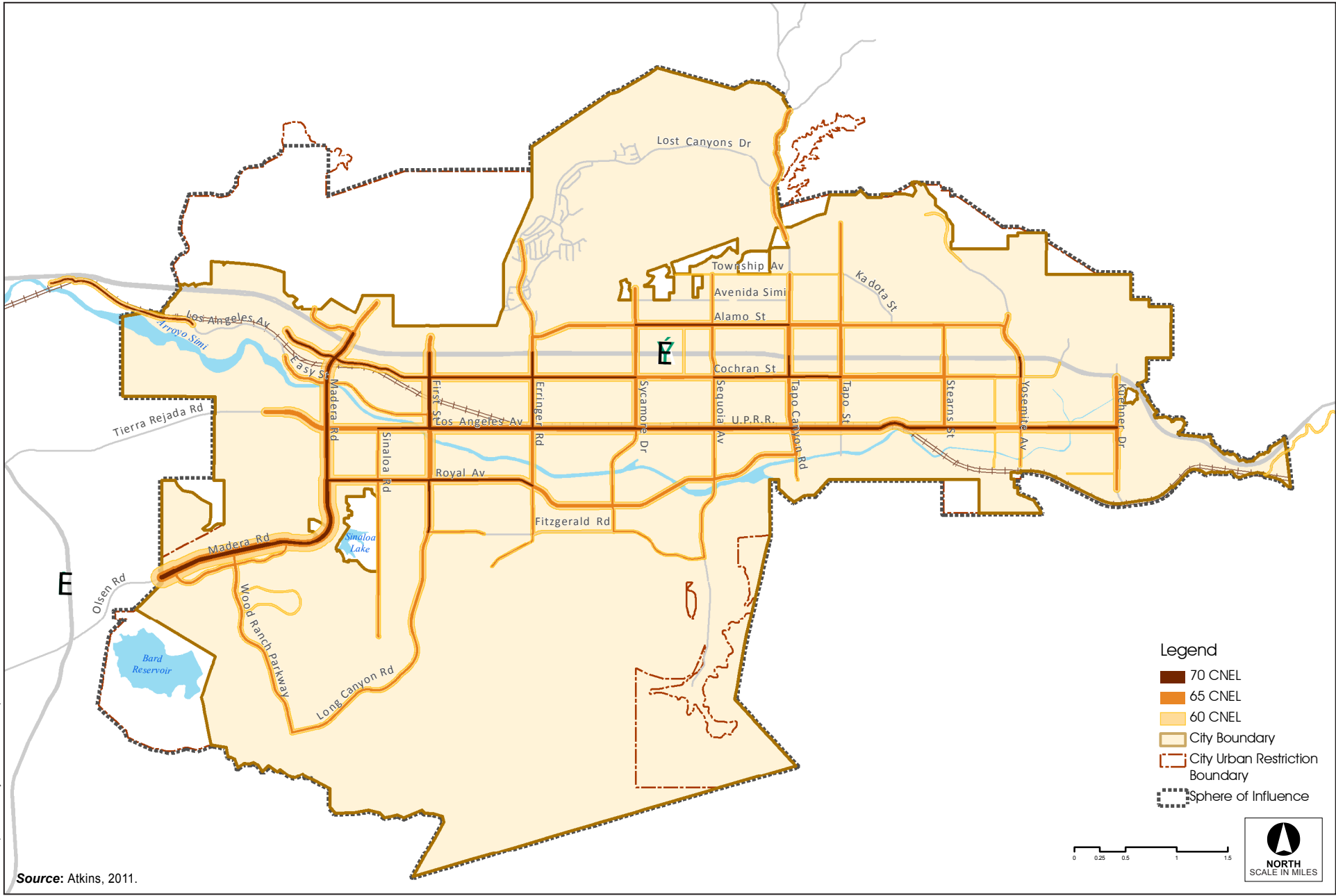
Roadway Segment	Reference L_{dn} at 100 Feet ^a	Distance to Noise Contour ¹		
		70 L_{dn}	65 L_{dn}	60 L_{dn}
Stearns St—SR-118 Fwy to Cochran St	61.8	—	61	131
Stearns St—Cochran St to Los Angeles Ave	61.9	—	62	134
Stow St—South of Cochran St	53.9	—	—	39
Yosemite Ave—North of Evening Sky Dr	53.3	—	—	—
Yosemite Ave—Flanagan Dr to Alamo St	59.8	—	45	97
Yosemite Ave—Alamo St to SR-118 Fwy	61.4	—	57	123
Yosemite Ave—SR-118 Fwy to Cochran St	63.0	—	74	159
Yosemite Ave—Cochran St to Los Angeles Ave	62.2	—	65	140
Yosemite Ave—Los Angeles Ave to Katherine St	54.2	—	—	41
Kuehner Dr—SR-118 Fwy to Los Angeles Ave	60.8	—	53	113
Kuehner Dr—Los Angeles Ave to Katherine Rd	61.9	—	62	134
Kuehner Dr—South of Katherine Rd	60.3	—	49	105
Kadota St—North of Alamo St	48.8	—	—	—
Katherine Rd—West of Kuehner Dr	50.4	—	—	—
Katherine St—West of Yosemite Ave	49.6	—	—	—
Santa Susana Pass Rd—East of Lilac Ln	51.5	—	—	—
Township Ave—West of Sequoia Ave	48.6	—	—	—
Township Ave—East of Lemon Dr	49.9	—	—	—
Township Ave—West of Tapo St	52.0	—	—	—
W Los Angeles Ave—West of Quimisa Dr	57.3	—	—	66
Presidential Dr—North of Madera Rd	48.9	—	—	—

SOURCE: Atkins (2010) (calculation data sheets are provided in Appendix E).

The City of Simi Valley contains a number of each of these different land uses, including a hospital, libraries, retirement homes, parks and recreational facilities, public and private schools, religious institutions, and childcare facilities. As illustrated in Figure 4.12-3 (Future [2030] Roadway Noise Contours), sensitive uses located adjacent to SR-118 would regularly experience noise levels of up to 65 dBA L_{dn} , and sensitive uses (primarily residential) located along the southwest portion of Madera Road would experience noise levels up to 75 dBA L_{dn} .

4.12.3 Regulatory Framework

Various standards have been developed to address the compatibility of land uses and noise levels. The applicable standards are presented in the following discussion. Special emphasis is placed on land uses that are considered to be sensitive to high noise levels. Typical sensitive receptors include residences, schools, childcare centers, hospitals, long-term health care facilities, convalescent centers, and retirement homes. Each of these land use types currently occurs within the Planning Area.



Source: Atkins, 2011.

Figure 4.12-3
Future (2030) Roadway Noise Contours

■ Federal

There are no federal noise requirements or regulations applicable to local actions of the City of Simi Valley. However, there are federal regulations that influence the audible landscape, where federal funding is involved. The Federal Highway Administration (FHWA) requires abatement of highway traffic noise for highway projects through rules in the Code of Federal Regulations (CFR) (23 CFR Part 772), and the Federal Transit Administration (FTA) and Federal Railroad Administration (FRA) each recommend thorough noise and vibration assessments through comprehensive guidelines for any mass transit or high-speed railroad projects that would pass by residential areas. For housing constructed with assistance from the U.S. Department of Housing and Urban Development, minimum noise insulation standards must be achieved (24 CFR Part 51, Subpart B).

■ State

The California Governor's Office of Planning and Research has published recommended guidelines for the preparation and content of the noise element of a general plan. Each jurisdiction is required to consider these guidelines when developing the general plan noise element and determining acceptable noise levels within the community. The purpose of the noise element is to limit the exposure of the community to excessive noise levels. A noise element must identify and appraise noise problems in the community by analyzing and quantifying current and projected noise levels for all stationary and mobile noise sources in the community. Noise contours are then developed and shown for all the noise sources in the community, and are eventually used as a guide for establishing a pattern of land uses that minimizes the exposure of community residents to excessive noise.

Title 24 of the California Code of Regulations (CCR) includes Sound Transmission Control requirements that establish uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family units. Specifically, Title 24 states that interior noise levels attributable to exterior sources shall not exceed 45 dBA L_{dn} in any habitable room of new dwellings. Dwellings are to be designed so that interior noise levels would meet this standard for at least ten years from the time of building permit application.

■ Local

Simi Valley General Plan—Noise Element

The Noise Element of the Simi Valley General Plan provides specific noise standards for interior and exterior areas, as identified in Table 4.12-4 (General Plan Noise Standards).

Simi Valley Municipal Code—Chapter 16: Noise

Section 5-16.02(d) of the Municipal Code declares that the operation of engines, motors, and mechanical devices in and near residential districts between the hours of 11:00 PM and 7:00 AM on Friday or Saturday and between the hours of 10:00 PM and 7:00 AM on Sunday through Thursday, unless such device is enclosed within a sound-insulated structure so as to prevent noise and sounds from being plainly audible at a distance of 50 feet from such structure or within 10 feet of any residence, is a nuisance punishable by misdemeanor.

Table 4.12-4 General Plan Noise Standards

<i>Land Use Categories</i>		<i>Energy Average L_{dn}</i>	
<i>Categories</i>	<i>Uses</i>	<i>Interior^a</i>	<i>Exterior^b</i>
Residential	Single Family, Duplex, Multiple Family	45 ^c	63
	Mobile Home	45 ^d	63 ^d
Commercial Institutional	Hotel, Motel, Transient Lodging	45	—
	Hospital, Schools' classroom	45	—
	Church, Library	45	—

SOURCE: Simi Valley General Plan (1988).

- a. Indoor environment excluding: bathrooms, toilets, closets, corridors
- b. Outdoor environment limited to the following:
 - Private yard of single family
 - Multi-family private patio which is served by a means of exit from inside
 - Mobile home park
- c. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of UBC.
- d. Exterior noise level should be such that interior noise level will not exceed 45 CNEL.

Section 5-16.02(h) of the Municipal Code declares that the operation of any pile driver, steam shovel, pneumatic hammer, derrick, hoist, or other appliance that generates a loud or unusual noise between the hours of 7:00 PM and 7:00 AM is a nuisance punishable by misdemeanor.

Section 5-16.02(i) of the Municipal Code declares that the erection, excavation, demolition, alteration, construction, or repair of any structure or building, other than between the hours of 7:00 AM and 7:00 PM, is a nuisance punishable by misdemeanor.

4.12.4 Project Impacts and Mitigation

■ Analytic Method

Implementation of the General Plan Update could result in elevated noise levels that may exceed permitted City noise levels. This includes potential noise impacts throughout the Planning Area. The primary sources of noise associated with the proposed project would be construction activities within the City and project-related traffic volumes associated with operation of those projects. Secondary sources of noise would include new stationary sources (such as heating, ventilation, and air conditioning units) and increased human activity throughout the City. The net increase in noise levels generated by these activities and other sources have been quantitatively estimated and compared to the applicable noise standards and thresholds of significance.

Construction Noise Levels

Construction noise levels were estimated by data published by the U.S. Environmental Protection Agency (USEPA). Potential noise levels are identified for on- and off-site locations that are sensitive to noise, including residences and schools.

The USEPA has compiled data regarding the noise-generating characteristics of typical construction activities. These noise levels would diminish rapidly with distance from the construction site, at a rate of

approximately 6 dBA per doubling of distance. For example, a noise level of 86 dBA measured at 50 feet from the noise source to the receptor would reduce to 80 dBA at 100 feet from the source to the receptor, and reduce by another 6 dBA to 74 dBA at 200 feet from the source to the receptor. The noise levels from construction at the off-site sensitive uses can be determined with the following equation from the HMMH *Transit Noise and Vibration Impact Assessment, Final Report*: $L_{eq} = L_{eq} \text{ at } 50 \text{ ft.} - 20 \text{ Log}(D/50)$, where L_{eq} = noise level of noise source, D = distance from the noise source to the receiver, L_{eq} at 50 ft. = noise level of source at 50 feet.

Roadway Noise Levels

Roadway noise levels have been calculated for various locations within the City of Simi Valley. The noise levels were calculated using the FHWA-RD-77-108 model and traffic volumes from the project traffic study. The average vehicle noise rates (energy rates) utilized in the FHWA Model reflects vehicle noise rates identified for California by Caltrans. Traffic volumes used in the FHWA model are derived from the project traffic study, which is provided in its entirety in Appendix E and summarized in Section 4.16 (Transportation/Traffic) of this document.

■ Thresholds of Significance

For the purposes of this EIR, implementation of the General Plan Update would have a significant impact on the environment if it would do any of the following:

- Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance
- Create a permanent increase in ambient noise levels in the project vicinity by 10 dBA L_{dn} above levels existing without the project
- Cause a substantial temporary or periodic increase in ambient noise levels, from other than construction related noise, in the project vicinity above levels existing without the project

■ General Plan Policies that Mitigate Potential Impacts on Noise

Policies and goals from the Safety and Noise Chapter that would mitigate potential impacts on noise include the following. All General Plan policies are followed by a set of numbers in parentheses. These numbers reference applicable measures that will be undertaken by the City to implement the policy.

- Policy N-1.1** **Noise Standards.** Require noise attenuation for all development where the projected exterior and interior noise levels exceed those shown in Table N-1 (Interior and Exterior Noise Standards), to the extent feasible. (*Imp A-1, A-2, LU-18, N-1*)
- Policy N-1.2** **Noise between Adjacent Uses.** Require that mixed-use and multi-family residential developments demonstrate that the design of the structure will adequately isolate noise between adjacent uses (orientation, window insulation, common wall separation, common floor/ceilings separation, etc.). (*Imp A-1, A-2, LU-18, N-1, N-2*)
- Policy N-1.3** **Mixed-Use Development Standards.** Require, whenever physically possible, new mixed-use developments to locate loading areas, parking lots, driveways,

trash enclosures, mechanical equipment, and other noise sources away from the residential portion of the development, and apply physical construction standards (equipment, construction standards) to reduce noise between uses. (*Imp A-1, A-2, LU-18, N-1*)

- Policy N-1.4 Noise Attenuation Measures.** Ensure that all new development provides adequate sound insulation or other protection from existing and anticipated noise sources. (*Imp A-1, A-2, LU-18, N-2*)
- Policy N-1.5 Sensitive Receptors.** Incorporate ambient noise level considerations into land use decisions involving schools, hospitals, and similar noise-sensitive uses. (*Imp A-1, A-2, LU-18, N-2*)
- Policy N-2.1 State Motor Vehicle Noise Standards.** Encourage the enforcement of state motor vehicle noise standards for cars, trucks, and motorcycles through coordination with the California Highway Patrol and Simi Valley Police Department. (*Imp A-1, A-2, LU-18, N-3*)
- Policy N-2.2 Roadway Noise Sensitivity Measures.** Ensure the employment of noise attenuation measures in the design of roadway improvement projects consistent with funding capability. Support efforts by the California Department of Transportation and others to provide for acoustical protection of existing noise-sensitive land uses affected by these projects. (*Imp A-1, A-2, LU-18, N-3*)
- Policy N-2.3 Noise Attenuation along Major Arterials and Railroad Tracks.** Require the use of walls and berms in the design of residential and other noise-sensitive land uses that are adjacent to the 118 Freeway, major arterials, and railroad tracks. (*Imp A-1, A-2, LU-18, N-1*)
- Policy N-2.4 Noise Studies for New Development.** Require the preparation of noise studies, as deemed necessary by the Department of Environmental Services, for new development (especially residential projects) along the freeway corridor, major thoroughfares, and railroad tracks to ensure that adequate sound attenuation from these noise sources is provided. (*Imp A-1, A-2, LU-18, N-2*)
- Policy N-3.1 Protection from Stationary Noise Sources.** Continue to enforce interior and exterior noise standards to ensure that sensitive noise receptors are not exposed to excessive noise levels from stationary noise sources, such as machinery, equipment, fans, and air conditioning equipment. (*Imp A-1, A-2, LU-12, LU-18*)
- Policy N-3.2 Regulation of Sound-Amplifying Equipment.** Continue to regulate the use of sound-amplifying equipment. (*Imp A-1, A-2, LU-18, N-1*)
- Policy N-3.3 Enforcement of Hours of Construction Activity.** Continue to enforce restrictions on hours of construction activity so as to minimize the impacts of noise and vibration from the use of trucks, heavy drilling equipment, and other heavy machinery to adjacent uses, particularly in residential areas. (*Imp A-1, A-2, LU-18, N-1*)

■ Effects Not Found to Be Significant

No Effects Not Found to Be Significant have been identified with respect to noise.

■ Less-Than-Significant Impacts

Impact 4.12-1 **Implementation of the General Plan Update could result in an increased level of development within the City and additional construction activities and traffic volumes that may exceed permitted noise levels. In addition, with increased development, there could be a secondary increase in noise levels associated with increased human activity throughout the City; however, this impact would be reduced to less-than-significant levels through the implementation of General Plan policies and compliance with relevant local, state, and federal regulations. This is a *less-than-significant* impact.**

Development of projects allowed under the updated General Plan would require the use of heavy equipment for demolition, site excavation, installation of utilities, site grading, paving, and building fabrication. Construction activities would also involve the use of smaller power tools, generators, and other sources of noise. During each stage of construction there would be a different mix of equipment operating, and noise levels would vary based on the amount of equipment in operation and the location of the activity.

Construction equipment noise levels are based upon data compiled by the USEPA and is presented in Table 4.12-5 (Noise Ranges of Typical Construction Equipment) and Table 4.12-6 (Typical Outdoor Construction Noise Levels). As previously stated, these noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance for construction equipment, as identified by the USEPA (USEPA 1971). For example, a noise level of 86 dBA measured at 50 feet from the noise source to the receptor would diminish to 80 dBA at 100 feet from the source to the receptor, and diminish by another 6 to 74 dBA at 200 feet from the source to the receptor.

Noise that would be experienced by sensitive uses due to development associated with implementation of the General Plan Update is determined at the property lines. Specific development plans have not yet been determined at individual sites; however, there is the potential that future construction activities could be as close as 50 feet from sensitive receptors (single- and multi-family residential, educational, and medical uses). Sensitive receptors within the vicinity of individual development projects could experience noise levels up to 98 dBA L_{eq} as a result of routine construction activities, and up to 107 dBA L_{eq} if conventional pile driving activities were required.

The existing General Plan has established noise standards for residential, commercial, and institutional land uses. Residential standards are 45 dBA L_{dn} for interior noise and 63 dBA L_{dn} for exterior noise. Commercial and Institutional standards are 45 dBA L_{dn} for interior noise. However, the Municipal Code Section 5-16.02(i) allows for noise resulting from construction activities to not be considered a nuisance if it occurs between the hours of 7:00 AM and 7:00 PM. Additionally, Section 5-16.02(h) prevents loud or unusual noise sources, such as pile drivers, from operating between 7:00 PM and 7:00 AM. The General Plan Update would allow for development of new uses within the City; however, specific development plans for individual projects are unknown at this time. As such, it would be speculative to attempt to determine what the noise levels resulting from construction activities would be at specific noise sensitive receptors. Further, construction noise levels would be considered a temporary nuisance, as the increase in

Table 4.12-5 Noise Ranges of Typical Construction Equipment

<i>Equipment</i>	<i>Noise Levels in dBA L_{eq} at 50 Feet ^a</i>
Front Loader	73 to 86
Trucks	82 to 95
Cranes (moveable)	75 to 88
Cranes (derrick)	86 to 89
Vibrator	68 to 82
Saws	72 to 82
Pneumatic Impact Equipment	83 to 88
Jackhammers	81 to 98
Pumps	68 to 72
Generators	71 to 83
Compressors	75 to 87
Concrete Mixers	75 to 88
Concrete Pumps	81 to 85
Back Hoe	73 to 95
Pile Driving (peaks)	95 to 107
Tractor	77 to 98
Scraper/Grader	80 to 93
Paver	85 to 88

SOURCE: USEPA (1971).

a. Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.

Table 4.12-6 Typical Outdoor Construction Noise Levels

<i>Construction Phase</i>	<i>Noise Levels at 50 Feet(dBA L_{eq})</i>	<i>Noise Levels at 50 Feet with Mufflers (dBA L_{eq})</i>
Ground Clearing	84	82
Excavation, Grading	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86

SOURCE: USEPA (1971).

noise level would only occur during the use of construction equipment associated with the specific development project.

The Simi Valley Municipal Code established the prohibitions and limitations identified above in order to reduce construction noise impacts on sensitive receptors to the extent practicable. In accordance with Section 5-16.02(i) and Section 5-16.02(h), construction activities would be limited to the hours of

7:00 AM and 7:00 PM. As construction would not occur except during times permitted in Section 5-16.02(i) and Section 5-16.02(h) of the Municipal Code, and since this code allows construction noise in excess of General Plan standards to occur between these hours, the proposed project would not violate established local standards. Compliance with the City of Simi Valley Municipal Code would ensure that impacts associated with construction-related noise would be minimized and only occur during the approved hours for construction activity. Therefore, this impact would be *less than significant*.

Due to the existing character of the City, residential and commercial uses are located relatively close to one another and, in some instances, co-exist. The updated General Plan would allow increased density and or mixed uses in specific, primarily commercial areas (Study Areas). In these locations, key industry office uses are being proposed, as well as new residential uses. Development of residential uses adjacent to or within commercial areas could potentially result in residential land uses being located in areas where loud ambient noise levels exist.

Sources of noise generated by implementation of the General Plan Update would include new stationary sources, such as rooftop heating, ventilation, and air conditioning (HVAC) systems for office, commercial and mixed-use development. Large HVAC systems associated with this development can result in noise levels that average between 50 and 65 dBA L_{eq} at 50 feet from the equipment. As 24-hour L_{dn} noise levels are about 6.4 dBA greater than 24-hour L_{eq} measurements, this means that the HVAC equipment associated with the retail-commercial buildings could generate community noise levels that average between 56 to 71 dBA L_{dn} at 50 feet when the equipment is operating constantly over 24 hours. However, Municipal Code Section 5-16.02(d) prohibits stationary mechanical equipment such as HVAC from producing plainly audible noise levels at a distance of 50 feet or within 10 feet of a residence. Compliance with Section 5-16.02(d) would involve providing for shielding and placing the HVAC systems within wells on the roofs of buildings in order to ensure that the new systems would not exceed the standards set forth in Municipal Code Section 5-16.02(d).

Implementation of the updated General Plan would also involve increases in delivery of goods to the commercial, retail and mixed-uses developments that could occur. Two noise sources would be associated with delivery operations: the noise of the diesel engines of the semi-trailer trucks and the backup beeper alarm that sounds when a truck is put in reverse, as is required and regulated by Cal-OSHA. The noise generated by idling diesel engines typically ranges between 64 and 66 dBA L_{eq} at 75 feet. This noise would be temporary in nature, typically lasting no more than five minutes. Backup beepers are required by Cal-OSHA to be at least 5 dBA above ambient noise levels. These devices are highly directional in nature, and when in reverse the trucks and the beeper alarm would be directed towards the loading area and adjacent commercial structures. Backup beepers are, of course, intended to warn persons who are behind the vehicle when it is backing up.

The updated General Plan Noise Element contains Goal N-1: Land Use Compatibility, which states, "Land use conflicts between various noise sources and other human activities are minimized." To achieve this goal, the General Plan Update has identified a variety of policies to reduce the potential noise impacts to land use compatibility. Implementation of Policy N-1.1 (Noise Standards), Policy N-1.2 (Noise between Adjacent Uses), Policy N-1.3 (Mixed-Use Development Standards), Policy N-1.4 (Noise Attenuation Measures), and Policy N-1.5 (Sensitive Receptors), as well as compliance with the Municipal

Code, would ensure that potential impacts to sensitive receptors due to exposure to noise levels that exceed the established local standards would be *less than significant*.

Impact 4.12-2 **Implementation of the General Plan Update could result in a permanent increase in ambient noise levels by 10 dBA L_{dn} above levels existing without the project; however, this impact would be reduced to less-than-significant levels through the implementation of General Plan policies and compliance with relevant local, state, and federal regulations. This is a *less-than-significant* impact.**

Future noise levels within the City would continue to be dominated by vehicular traffic on the adjacent roadways. Other sources of noise would include new stationary sources (such as rooftop heating, ventilation, and air conditioning equipment) and increased human activity throughout the City.

Locations in the vicinity of the individual projects within the City could experience slight changes in noise levels as a result of an increase in the on-site population and intensification of retail uses due to the potential development of residential and commercial uses and the resulting increase in motor vehicle trips. Existing traffic noise levels are identified in Table 4.12-3. Noise levels associated with traffic generated from existing conditions with the proposed project are calculated at the selected locations along the study-area roadway segments within the City using traffic data from the traffic study (included in Appendix E). The creation of a permanent increase in ambient noise levels in the project vicinity by 10 dBA L_{dn} above existing levels would be considered a significant increase. Table 4.12-7 (Future [2030] Roadway Noise Levels Compared to Ambient Future Noise Levels) presents the average daily noise levels associated with these roadways under the proposed project and compares them to existing General Plan build-out conditions. Figure 4.12-3 depicts the future noise levels in the year 2030, which includes both vehicle growth within the City of Simi Valley under the General Plan Update as well as cumulative regional vehicle growth (refer to Section 4.16 of this Draft EIR).

Table 4.12-7 Future (2030) Roadway Noise Levels Compared to Ambient Future Noise Levels

<i>Roadway Segment</i>	<i>Future Noise Levels with existing GP Build-Out in dBA L_{dn} at 100 feet</i>	<i>Future Noise Levels with proposed GP Build-Out in dBA L_{dn} at 100 feet</i>	<i>Increase over existing GP noise levels at 100 feet</i>	<i>Threshold (dBA)</i>	<i>Exceeds Significance Threshold?</i>
Alamo St—Erringer Rd to Sycamore Dr	61.4	62.7	1.2	10.0	No
Alamo St—Sycamore Dr to Sequoia Ave	63.7	64.9	1.1	10.0	No
Alamo St—Sequoia Ave to Tapo Canyon Rd	63.8	64.3	0.5	10.0	No
Alamo St—Tapo Canyon Rd to Tapo St	63.2	64.0	0.8	10.0	No
Alamo St—Tapo St to Stearns St	61.5	62.1	0.6	10.0	No
Alamo St—Stearns St to Yosemite Ave	60.9	61.5	0.5	10.0	No
Cochran St—West of Madera Rd	63.1	64.8	1.6	10.0	No
Cochran St—Madera Rd to First St	63.1	64.1	0.9	10.0	No
Cochran St—First St to Erringer Rd	64.3	64.9	0.7	10.0	No

Table 4.12-7 Future (2030) Roadway Noise Levels Compared to Ambient Future Noise Levels

<i>Roadway Segment</i>	<i>Future Noise Levels with existing GP Build-Out in dBA L_{dn} at 100 feet</i>	<i>Future Noise Levels with proposed GP Build-Out in dBA L_{dn} at 100 feet</i>	<i>Increase over existing GP noise levels at 100 feet</i>	<i>Threshold (dBA)</i>	<i>Exceeds Significance Threshold?</i>
Cochran St—Erringer Rd to Sycamore Dr	64.1	64.4	0.3	10.0	No
Cochran St—Sycamore Dr to Galena Ave	63.6	63.6	0.1	10.0	No
Cochran St—Galena Ave to Sequoia Ave	63.1	63.2	0.1	10.0	No
Cochran St—Sequoia Ave to Tapo Canyon Rd	64.3	64.6	0.2	10.0	No
Cochran St—Tapo Canyon Rd to Tapo St	63.8	64.4	0.6	10.0	No
Cochran St—Tapo St to Stearns St	62.9	63.8	0.9	10.0	No
Cochran St—Stearns St to Stow St	60.7	60.9	0.2	10.0	No
Cochran St—Stow St to Yosemite Ave	59.1	59.3	0.2	10.0	No
Cochran St—East of Yosemite Ave	55.2	55.3	0.2	10.0	No
Los Angeles Ave—Madera Rd to Sinaloa Rd	65.0	65.8	0.8	10.0	No
Los Angeles Ave—Sinaloa Rd to First St	64.7	65.8	1.1	10.0	No
Los Angeles Ave—First St to Erringer Rd	65.6	67.0	1.3	10.0	No
Los Angeles Ave—Erringer Rd to Sycamore Dr	65.9	66.8	0.9	10.0	No
Los Angeles Ave—Sycamore Dr to Sequoia Ave	65.8	66.5	0.6	10.0	No
Los Angeles Ave—Sequoia Ave to Tapo Canyon Rd	65.3	66.1	0.8	10.0	No
Los Angeles Ave—Tapo Canyon Rd to Tapo St	66.5	67.2	0.7	10.0	No
Los Angeles Ave—Tapo St to Stearns St	66.0	66.8	0.9	10.0	No
Los Angeles Ave—Stearns St to Stow St	65.3	66.1	0.7	10.0	No
Los Angeles Ave—Stow St to Yosemite Ave	64.4	65.2	0.9	10.0	No
Los Angeles Ave—Yosemite Ave to Rory Ln	65.6	66.2	0.5	10.0	No
Los Angeles Ave—Rory Ln to Kuehner Dr	66.2	66.7	0.5	10.0	No
Royal Ave—Madera Rd to Sinaloa Rd	64.9	65.5	0.6	10.0	No
Royal Ave—Sinaloa Rd to First St	64.2	65.1	0.8	10.0	No
Royal Ave—First St to Erringer Rd	64.5	64.9	0.4	10.0	No
Royal Ave—Erringer Rd to Sycamore Dr	63.8	63.9	0.0	10.0	No
Royal Ave—Sycamore Dr to Sequoia Ave	62.3	62.7	0.4	10.0	No
Royal Ave—Sequoia Ave to Tapo Canyon Rd	61.6	62.0	0.4	10.0	No
Fitzgerald Rd—First St to Hudspeth Ave	57.6	58.0	0.4	10.0	No
Fitzgerald Rd—Erringer Rd to Sycamore Dr	57.3	57.3	0.0	10.0	No
Fitzgerald Rd—Sycamore Dr to Sequoia Ave	57.4	57.4	0.0	10.0	No
Country Club Dr E—Madera Rd to Wood Ranch Pkwy	59.1	59.1	0.0	10.0	No
Country Club Dr W—Madera Rd to Wood Ranch Pkwy	61.1	61.4	0.2	10.0	No

Table 4.12-7 Future (2030) Roadway Noise Levels Compared to Ambient Future Noise Levels

<i>Roadway Segment</i>	<i>Future Noise Levels with existing GP Build-Out in dBA_{Ldn} at 100 feet</i>	<i>Future Noise Levels with proposed GP Build-Out in dBA_{Ldn} at 100 feet</i>	<i>Increase over existing GP noise levels at 100 feet</i>	<i>Threshold (dBA)</i>	<i>Exceeds Significance Threshold?</i>
Lake Park Dr N&S—East of Wood Ranch Pkwy (N)	53.9	53.9	0.0	10.0	No
Lake Park Dr N&S—East of Wood Ranch Pkwy (S)	54.6	54.6	0.0	10.0	No
Wood Ranch Pkwy—Madera Rd to Country Club Dr	61.1	60.5	-0.6	10.0	No
Wood Ranch Pkwy—Country Club Dr to Lake Park Dr S	62.3	62.2	0.0	10.0	No
Wood Ranch Pkwy—Lake Park Dr S to Long Canyon Rd	61.2	61.2	0.0	10.0	No
Madera Rd—West City Limits to Country Club Dr W	70.2	70.4	0.2	10.0	No
Madera Rd—Country Club Dr W to Wood Ranch Pkwy	69.4	69.5	0.1	10.0	No
Madera Rd—Wood Ranch Pkwy to Country Club Dr E	69.5	69.6	0.2	10.0	No
Madera Rd—Vista Lago Dr to Royal Ave	68.9	69.1	0.2	10.0	No
Madera Rd—Royal Ave to Los Angeles Ave	67.4	67.4	0.1	10.0	No
Madera Rd—Los Angeles Ave to Easy St	67.1	67.4	0.3	10.0	No
Madera Rd—Easy St to Cochran St	67.4	67.7	0.3	10.0	No
Madera Rd—Cochran St to SR-118 Fwy	67.3	67.6	0.3	10.0	No
Madera Rd—North of View Line Dr	62.7	62.6	0.0	10.0	No
View Line Dr—SR-118 Fwy to Madera Rd	61.1	61.3	0.2	10.0	No
Tierra Rejada Rd—Friendly Village to Stargaze Pl	63.5	64.4	0.8	10.0	No
Tierra Rejada Rd—West of Madera Rd	65.1	65.7	0.6	10.0	No
Easy St—W Los Angeles Ave to Madera Rd	61.3	61.7	0.4	10.0	No
Easy St—Madera Rd to First St	57.9	58.3	0.4	10.0	No
Sinaloa Rd—Los Angeles Ave to Royal Ave	59.3	59.3	0.0	10.0	No
Sinaloa Rd—South of Royal Ave	59.8	59.8	0.0	10.0	No
First St—Town Center Dr to SR-118 Fwy	64.1	64.1	0.0	10.0	No
First St—SR-118 Fwy to Cochran St	65.6	67.0	1.3	10.0	No
First St—Cochran St to Easy St	66.1	68.1	2.0	10.0	No
First St—Easy St to Los Angeles Ave	65.6	67.3	1.7	10.0	No
First St—Los Angeles Ave to Royal Ave	65.4	65.7	0.3	10.0	No
First St—Royal Ave to Fitzgerald Rd	64.7	64.7	0.1	10.0	No
First St—Fitzgerald Road to Bluegrass St	62.3	62.3	0.0	10.0	No
Long Canyon Rd—Bluegrass St to Wood Ranch Pkwy	60.9	60.9	0.0	10.0	No
Erringer Rd—North of Legacy Drive	61.1	61.3	0.1	10.0	No
Erringer Rd—North of Alamo St	60.5	60.5	0.0	10.0	No
Erringer Rd—Alamo St to SR-118 Fwy	62.4	63.2	0.8	10.0	No

Table 4.12-7 Future (2030) Roadway Noise Levels Compared to Ambient Future Noise Levels

<i>Roadway Segment</i>	<i>Future Noise Levels with existing GP Build-Out in dBA L_{dn} at 100 feet</i>	<i>Future Noise Levels with proposed GP Build-Out in dBA L_{dn} at 100 feet</i>	<i>Increase over existing GP noise levels at 100 feet</i>	<i>Threshold (dBA)</i>	<i>Exceeds Significance Threshold?</i>
Erringer Rd—SR-118 Fwy to Cochran St	64.5	65.0	0.5	10.0	No
Erringer Rd—Cochran St to Los Angeles Ave	63.8	64.2	0.5	10.0	No
Erringer Rd—Los Angeles Ave to Royal Ave	62.7	62.7	0.0	10.0	No
Erringer Rd—Royal Ave to Fitzgerald Rd	59.6	59.6	0.0	10.0	No
Erringer Rd—South of Fitzgerald Rd	57.3	57.3	0.0	10.0	No
Sycamore Dr—North of Alamo St	58.1	63.0	4.9	10.0	No
Sycamore Dr—Alamo St to SR-118 Fwy	61.7	63.8	2.1	10.0	No
Sycamore Dr—SR-118 Fwy to Cochran St	62.8	63.4	0.6	10.0	No
Sycamore Dr—Cochran St to Los Angeles Ave	63.6	64.0	0.4	10.0	No
Sycamore Dr—Los Angeles Ave to Royal Ave	60.2	60.2	0.0	10.0	No
Sycamore Dr—Royal Ave to Fitzgerald Rd	58.4	59.1	0.7	10.0	No
Galena Ave—Alamo St to Cochran St	57.2	57.2	0.0	10.0	No
Sequoia Ave—North of Alamo St	59.9	59.7	-0.2	10.0	No
Sequoia Ave—Alamo St to Cochran St	60.8	61.7	0.9	10.0	No
Sequoia Ave—Cochran St to Los Angeles Ave	59.8	60.8	0.9	10.0	No
Sequoia Ave—Los Angeles Ave to Royal Ave	60.3	60.4	0.1	10.0	No
Sequoia Ave—Royal Ave to Fitzgerald Rd	59.8	59.9	0.0	10.0	No
Tapo Canyon Rd—North of Presidio Dr	61.9	61.9	0.0	10.0	No
Tapo Canyon Rd—Township Ave to Alamo St	62.3	62.2	0.0	10.0	No
Tapo Canyon Rd—Alamo St to SR-118 Fwy	64.9	65.0	0.1	10.0	No
Tapo Canyon Rd—SR-118 Fwy to Cochran St	64.8	65.1	0.3	10.0	No
Tapo Canyon Rd—Cochran St to Los Angeles Ave	63.4	63.7	0.3	10.0	No
Tapo Canyon Rd—Los Angeles Ave to Royal Ave	63.3	63.6	0.3	10.0	No
Tapo Canyon Rd—Royal Ave to Guardian Way	57.3	57.2	-0.1	10.0	No
Tapo St—Walnut St to Township Ave	59.7	59.6	-0.1	10.0	No
Tapo St—Township Ave to Alamo St	61.5	61.5	0.0	10.0	No
Tapo St—Alamo St to Cochran St	61.4	63.4	2.0	10.0	No
Tapo St—Cochran St to Los Angeles Ave	61.6	63.1	1.5	10.0	No
Stearns St—Alamo St to SR-118 Fwy	60.1	60.4	0.3	10.0	No
Stearns St—SR-118 Fwy to Cochran St	63.3	64.0	0.7	10.0	No
Stearns St—Cochran St to Los Angeles Ave	62.6	63.0	0.3	10.0	No
Stow St—South of Cochran St	54.0	54.0	0.0	10.0	No

Table 4.12-7 Future (2030) Roadway Noise Levels Compared to Ambient Future Noise Levels

Roadway Segment	Future Noise Levels with existing GP Build-Out in dBA L_{dn} at 100 feet	Future Noise Levels with proposed GP Build-Out in dBA L_{dn} at 100 feet	Increase over existing GP noise levels at 100 feet	Threshold (dBA)	Exceeds Significance Threshold?
Yosemite Ave—North of Evening Sky Dr	55.8	56.0	0.1	10.0	No
Yosemite Ave—Flanagan Dr to Alamo St	62.1	62.1	0.0	10.0	No
Yosemite Ave—Alamo St to SR-118 Fwy	63.0	63.3	0.3	10.0	No
Yosemite Ave—SR-118 Fwy to Cochran St	63.8	64.2	0.3	10.0	No
Yosemite Ave—Cochran St to Los Angeles Ave	62.9	63.2	0.3	10.0	No
Yosemite Ave—Los Angeles Ave to Katherine St	58.0	58.2	0.2	10.0	No
Kuehner Dr—SR-118 Fwy to Los Angeles Ave	63.3	63.9	0.6	10.0	No
Kuehner Dr—Los Angeles Ave to Katherine Rd	62.7	62.7	0.0	10.0	No
Kuehner Dr—South of Katherine Rd	61.7	62.2	0.4	10.0	No
Kadota St—North of Alamo St	48.8	48.8	0.0	10.0	No
Katherine Rd—West of Kuehner Dr	52.4	52.7	0.3	10.0	No
Katherine St—West of Yosemite Ave	50.1	50.1	0.0	10.0	No
Santa Susana Pass Rd—East of Lilac Ln	54.8	55.3	0.5	10.0	No
Township Ave—West of Sequoia Ave	48.9	49.7	0.8	10.0	No
Township Ave—East of Lemon Dr	50.1	50.1	0.0	10.0	No
Township Ave—West of Tapo St	52.3	52.3	0.0	10.0	No
W Los Angeles Ave—West of Quimisa Dr	61.6	62.2	0.6	10.0	No
Presidential Dr—North of Madera Rd	49.7	48.9	-0.8	10.0	No

SOURCE: Atkins (2010) (calculation data and results are provided in Appendix E).

- a. Distances are in feet from roadway centerline. The identified noise level at 100 feet from the roadway centerline is for reference purposes only. This distance is used to account for variation in lane widths, and therefore does not reflect an actual building location or potential impact location.

As shown in Table 4.12-7, no roadway segments are expected to experience a significant increase over existing conditions with the addition of future traffic volumes. The roadway segment of Sycamore Drive north of Alamo Street would experience the highest increase in noise levels as a result of implementation of the General Plan Update at 4.9 dBA L_{dn} .

The updated General Plan Safety and Noise Element contains Goal N-2 (Sensitive Receptors), which states, “Motor vehicle traffic and railroad noise impacts on sensitive noise receptors are minimized.” To achieve this goal, the General Plan Update has identified a variety of policies to reduce the potential noise impacts to sensitive receptors. With implementation of Policy N-2.1 (State Motor Vehicle Noise Standards), Policy N-2.2 (Roadway Noise Sensitivity Measures), Policy N-2.3 (Noise Attenuation along Major Arterials and Railroad Tracks), and Policy N-2.4 (Noise Studies for New Development), and as no roadway segment would experience a substantial increase in noise over existing conditions with implementation of the General Plan Update, this impact is considered *less than significant*.

Impact 4.12-3 **Implementation of the General Plan Update could result in a substantial temporary or periodic increase in operational ambient noise levels; however, this impact would be reduced to less-than-significant levels through the implementation of General Plan policies and compliance with relevant local, state, and federal regulations. This is a *less-than-significant* impact.**

Operations of development under the General Plan Update could include special events or temporary activities which would cause an increase in ambient noise levels, such as farmers markets, local festivals and parades. Moreover, these types of events already occur under existing conditions within the City, and would not be expected to increase substantially under the updated General Plan. However, special events and other temporary activities that could generate excessive noise are regulated under Municipal Code Section 5-16.02, which sets standards and requirements for public nuisances resulting from noise including hours of operation and required distances (if applicable). In addition, operation of development under the General Plan Update would not require periodic use of special stationary equipment that would expose off-site sensitive receptors to an increase in ambient noise levels above those existing without the proposed project. Therefore, there would be no temporary or periodic noise impacts to on- or off-site receptors due to operation of the proposed project.

The updated General Plan Noise Element contains Goal N-3 (Stationary Noise), which states, “Non-transportation-related noise impacts on sensitive receptors are minimized.” To achieve this goal, the updated General Plan has identified a variety of policies to reduce potential stationary noise impacts. With implementation of Policy N-3.1 (Protection from Stationary Noise Sources), Policy N-3.2 (Regulation of Sound-Amplifying Equipment), and Policy N-3.3 (Enforcement of Hours of Construction Activity), and the lack of a substantial increase in noise-generating special events under the updated General Plan, this impact would be *less than significant*.

■ Significant and Unavoidable Impacts

No significant and unavoidable impacts have been identified with respect to noise.

■ Cumulative Impacts

Cumulative impacts are only addressed for those thresholds that have a project-related impact, whether it is less than significant, significant, or significant and unavoidable. If “no impact” occurs, no cumulative analysis is provided for that threshold as the project would not contribute under these thresholds.

The geographic context for the analysis of cumulative noise impacts depends on the impact being analyzed. For construction impacts, only the immediate area around individual development site would be included in the cumulative context. For operational/roadway related impacts, the context is existing and future development in the City of Simi Valley. This cumulative impact analysis considers development of projects under the updated General Plan, in conjunction with ambient growth and other development within the vicinity of the City of Simi Valley. Noise is, by definition, a localized phenomenon, and significantly reduces in magnitude as distance from the source increases. Consequently, only projects and growth due to occur in the City of Simi Valley could be considered

cumulatively considerable with regard to noise impacts. Traffic-related noise increases discussed above are cumulative in nature, as both project-generated as well as regional traffic levels are analyzed.

Increases in noise at sensitive uses would occur as a result of construction of development of specific projects under the updated General Plan along with other construction in the vicinity. As discussed above, construction activities could temporarily expose nearby sensitive receptors to noise levels above noise standards established by the General Plan. However, this construction noise would be temporary, and compliance with the City of Simi Valley Municipal Code would ensure that impacts associated with construction-related noise would be minimized and only occur during the approved hours for construction activity.

Other construction that may occur in the vicinity of the proposed project site would contribute noise levels similar to those generated for the proposed project, including multiple projects being constructed within Simi Valley and adjacent areas concurrently. Where this development adjoins construction of projects under the General Plan Update, the combined construction noise levels would have a cumulative effect on nearby sensitive uses. Noise is not strictly additive, and a doubling of noise sources would not cause a doubling of noise levels, but would result in a 3 dBA increase over a single source. However, cumulative construction noise levels could be in excess of the noise standards established in the General Plan.

Determining the exact location and potential noise levels of future construction activities would be considered speculative at this time. Further, construction noise levels would be considered a temporary nuisance, as the increase in noise level would only occur during the use of construction equipment associated with the specific development project. As discussed earlier, Municipal Code Section 5-16.02(i) and Section 5-16.02(h) limit construction activities to between the hours of 7:00 AM and 7:00 PM. As compliance with Section 5-16.02(i) and Section 5-16.02(h) would be required by the Municipal Code, the construction noise associated with the proposed project and all other cumulative development within the City in accordance with the updated General Plan would be exempt from compliance with the noise standards in the General Plan. Noise is a localized phenomenon, and because the Study Areas of the updated General Plan are predominately within developed urban areas, it is unlikely that multiple construction projects would occur simultaneously and in close enough proximity to each other to create a significant combined noise impact. Instead, periodic infill development in various areas of the City would be expected to occur. Therefore, the updated General Plan would not make a cumulatively considerable contribution to any potential cumulative construction noise impacts. The cumulative impact would be *less than significant*.

Permanent increases in noise would occur primarily as a result of increased traffic on local roadways due to development under the updated General Plan and ambient growth through 2030 within the City. Related development in adjacent jurisdictions may contribute traffic to the City roadway network. Cumulative traffic-generated noise impacts have been assessed based on the contribution of the proposed project to the future cumulative base traffic volumes in the project vicinity. As shown in Table 4.12-7, cumulative traffic would not result in substantial increases in noise along any roadway segments compared to existing conditions. The roadway segment of Sycamore Drive north of Alamo Street would experience the highest increase in noise levels as a result of implementation of the General Plan Update at 4.9 dBA L_{dn} . As no roadway segment would experience a substantial increase in noise

over existing conditions with implementation of the updated General Plan, and roadway noise is a localized phenomenon, the project's contribution would not be cumulatively considerable and the cumulative impact would be ***less than significant***.

Operation under the updated General Plan could include special events or temporary activities, which would cause an increase in ambient noise levels. However, these events currently occur under existing conditions and would not increase in number or frequency with adoption of the General Plan Update. Further it is unlikely that two such events would occur at the same time and in close enough proximity to contribute to a cumulative noise impact. Therefore, there would be no substantial temporary or periodic noise impacts to on- or off-site receptors due to operation of the proposed project, and the sporadic nature of any such temporary or periodic instances would not make the project's contribution cumulatively considerable. The cumulative impact would be ***less than significant***. No mitigation is required.

4.12.5 References

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- . 1980b. *Fundamentals and Abatement of Highway Traffic Noises*, September.
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