

5.11 NOISE

The six components of the project analyzed herein are:

- 1) Adoption and implementation of the General Plan;
- 2) Adoption and implementation of the revised Zoning Code;
- 3) Adoption and implementation of the revised Subdivision Code;
- 4) Adoption and implementation an amendment of the Noise Ordinance;
- 5) Adoption and implementation of the Magnolia Avenue Specific Plan (MASP); and
- 6) Adoption and implementation of the Citywide Design and Sign Guidelines.

Of the six project components, the Subdivision Code simply subdivides land, so no noise impacts will occur. The Zoning Code directly supports the land use designations in the General Plan and will not have any additional environmental effects to noise; therefore, these documents will not be analyzed further in this section. Impacts related to the adoption and implementation of the General Plan, the Noise Code Amendment, the Magnolia Avenue Specific Plan, and the Citywide Design and Sign Guidelines will be addressed herein.

The Noise Section of this EIR has been changed from the previously circulated EIR. In addition to the overall changes listed in the Project Description section of this EIR, some setting and background information was added and/or updated, for example, information on groundborne vibration and temporary ambient noise increase was added; missing existing regulations were added to the section; an addition of tables and text describing noise standards was added in the analysis portion of the section; as well as the additional analysis of all of the threshold questions and analysis specifically related to the Noise Code Amendment and the Magnolia Avenue Specific Plan. Information for all topics within this section was verified and updated as necessary.

Since an initial study was not prepared with the issuance of the Notice of Preparation, the focus of the following discussion is related to a potential impact from generation of noise levels in excess of established standards and excessive groundborne vibration or noise levels; a substantial increase in ambient noise levels in the project vicinity above levels existing without the project, exposure of persons residing or working in the project area subject to an airport land use plan to excessive noise levels.

In addition to other reference documents, the following references were used in the preparation of this section of the EIR:

- California Department of Transportation, *Technical Noise Supplement*, October 1998.
- City of Riverside, *Airport Master Plan Final Technical Report for Riverside Airport*, approved by City on November 16, 1999.
- City of Riverside Noise Control Code, *Title 7 of the Municipal Code*.
- P&D Environmental, *Noise Existing Conditions Report*, December 2003.

- Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.
- Mead & Hunt, *Draft March Air Reserve Base/Inland Port Airport Joint Land Use Study*, Prepared for the March Joint Powers Authority, November 2005.
- March Air Reserve Base United States Air Force, *Air Installation Compatible Use Zone (AICUZ) Study*, 1998.
- March Air Reserve Base United States Air Force, *Air Installation Compatible Use Zone (AICUZ) Study*, 2005.
- March Joint Powers Authority, *General Plan for the March Joint Powers Authority*, September 15, 1999.
- Riverside County Airport Land Use Commission, *Riverside County Airport Land Use Compatibility Plan Policy Document*. October 2004.
- Riverside County Airport Land Use Commission, *March Air Reserve Base Plan*, April 26, 1984
- Sound Transmission Control, 2001 Triennial Edition of California Code of Regulations, Title 24, Part 2, Volume I, Appendix Chapter 12, Division IIA.

Information in this analysis is derived from noise projections and analysis conducted for the General Plan. **Appendix G** of the General Plan includes detailed noise measurement worksheets.

Setting

The City of Riverside is subject to typical urban noises, such as noise generated by traffic, heavy machinery, and day-to-day outdoor activities. *Planning Area* noise is the cumulative effect of noise from transportation activities and stationary sources. *Transportation noise* refers to noise from automobile use, trucking, airport operations, and rail operations. *Non-transportation noise* typically refers to noise from stationary sources such as commercial establishments, machinery, air conditioning systems, compressors, and landscape maintenance equipment. Regardless of the type of noise, the noise levels are highest near the source and decrease with distance.

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perceptibility is subjective and the physical response to sound complicates the analysis to its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness.” Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels (dB). The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate this human, frequency-dependent response, the A-weighting filter system is used to adjust measured sound levels and is expressed as dBA. **Table 5.11-A** lists representative noise levels for the environment.

Table 5.11-A Representative Environmental Noise Levels		
Common Outdoor Activities	Noise Levels (dba)	Common Indoor Activities
	110	Rock Band
Jet Fly-over at 1000 feet	105	
	100	
Gas Lawnmower at 3 feet	95	
	90	
	85	Food Blender at 3 feet
Diesel Truck going 50 mph at 50 feet	80	Garbage Disposal at 3 feet
Noisy Urban Area during Daytime	75	
Gas Lawnmower at 100 feet	70	Vacuum Cleaner at 10 feet
Commercial Area	65	Normal Speech at 3 feet
Heavy Traffic at 300 feet	60	
	55	Large Business Office
Quiet Urban Area during Daytime	50	Dishwasher in Next Room
	45	
Quiet Urban Area during Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Area during Nighttime	35	
	30	Library
Quiet Rural Area during Nighttime	25	Bedroom at Night, Concert Hall (background)
	20	
	15	Broadcast/Recording Studio
	10	
	5	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: California Department of Transportation, *Technical Noise Supplement*, 1998.

Noise consists of pitch, loudness, and duration; therefore, it is difficult to describe noise with a single unit of measure. Federal and State agencies have established noise and land use compatibility guidelines that use averaging approaches to noise measurement. Two measurement scales commonly used in California are the Community Noise Equivalent Level (CNEL) and the day-night level (L_{dn}). To account for increased human sensitivity at night, the CNEL level includes a five dB penalty on noise during the 7:00 P.M. to 10:00 P.M. time period and a ten dB penalty on noise during the 10:00 P.M. to 7:00 A.M. time period. The L_{dn} level includes only the ten dB weighting for late-night noise. These values are nearly identical for all but unusual noise sources.

Noise is particularly problematic when noise-sensitive land uses are affected. Noise-sensitive land uses are defined as uses where one would typically find activities that are interrupted by noise such as residential uses, schools, hospitals, churches, performing arts facilities, and hotels and motels. The City of Riverside deems residential uses particularly noise sensitive because families and individuals expect to use time in the home for quiet rest. Variability in standards for noise sensitivity applies to different densities of residential development, specifically infill and mixed-use developments; residential uses are considered the most noise sensitive. The City of

Riverside’s primary goal with regard to community noise is to minimize the exposure of new residential development, schools, hospitals and similar noise sensitive uses to excessive or unhealthy noise levels to the greatest extent possible.

Groundborne Vibration

Groundborne noise is the rumbling sound caused by the vibration of room surfaces. The ground motion caused by vibration is measured in vibration decibels (VdB). The background vibration velocity level in residential areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. The general human response to different levels of groundborne vibration velocity levels is described in **Table 5.11-B**, below.

Table 5.11-B Human Response Levels to Groundborne Vibration	
Vibration Velocity Level	Human Behavior
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Source: Federal Transit Administration 1995

Most perceptible indoor vibration is caused by sources within buildings such as the operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If roadways are smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, and 100 VdB, which is general threshold where minor damage can occur in fragile buildings. **Table 5.11-C** depicts the typical vibration levels and its sources.

Table 5.11-C Typical Levels of Groundborne Vibration		
Human/Structural Response	Velocity Level (VdB)	Typical Sources (50 ft from source)
Threshold, minor cosmetic damage fragile buildings	100	-Blasting from construction projects
		-Bulldozers and other heavy tracked construction equipment
Difficulty with tasks such as reading a VDT screen	90	
		-Commuter train, upper range
Residential annoyance, infrequent events (ex: commuter rail)	80	-Rapid transit, upper range
Residential annoyance, infrequent events- (ex: rapid transit)		-Commuter rail, typical -Bus or truck over bump
	70	-Rapid transit, typical
Approx. threshold for human perception-		- Bus or truck, typical
	60	
		-Typical background vibration
	50	

Source: U.S DOT. FTA Transit Noise & Vibration Impact Assessment. 2006

Existing Noise

Various locations within the City of Riverside were surveyed in 2003 by Cotton Bridges Associates (now known as TCB) to establish existing noise levels. These measurement sites were selected with the help of Planning Division staff to determine the impact from major sources of noise, such as freeway and railroad, within the City. Measurements were conducted at these representative receptor locations, providing a basis for understanding the overall ambient noise environment of the City of Riverside. Once the measurements were taken, the data were converted to noise contour maps. The locations of noise measurements, known as receptor locations, are shown graphically in **Figure 5.11-1, Noise Monitoring Locations**. Noise contours are used to provide a general visualization of sound levels rather than absolute lines of demarcation.



LEGEND

- # MONITORING STATIONS AND RECEPTOR NUMBERS
- - - RIVERSIDE CITY BOUNDARY
- RIVERSIDE PROPOSED SPHERE OF INFLUENCE

NOTE: FOR A DETAILED LISTING OF NOISE MONITORING LOCATIONS SEE TABLE 3 OF APPENDIX G.

SOURCE: COTTON BRIDGES ASSOCIATES

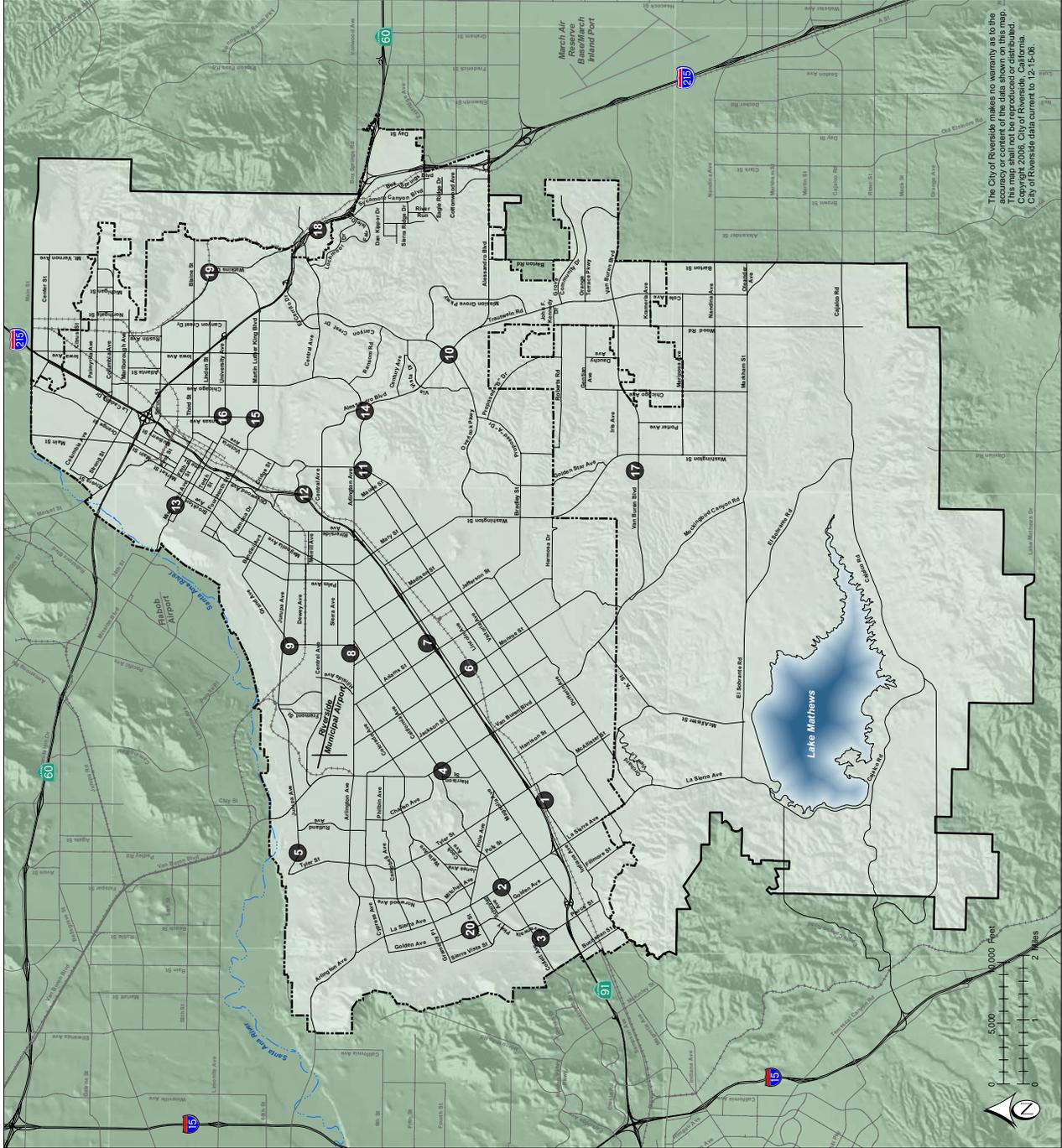


Figure 5.11-1
NOISE MONITORING LOCATIONS

Table 3 in Appendix G details 24-hour and short-term noise measurements taken at locations throughout the City of Riverside. The maximum noise measurement of 95.3 Leq was taken in the front yard of the Mission Inn. The corner of Collette Avenue and Pierce Street experienced the highest short-term measurement at 82.9 Leq. The monitoring indicated that the City of Riverside is primarily affected by roadway and freeway traffic noise, and to a lesser degree, industrial and commercial activities near noise-sensitive land uses. Mechanical equipment, outdoor recreational facilities, leaf blowers, train passing's, helicopter and airplane flyovers and construction equipment are examples of sources that can contribute to neighborhood noise.

As discussed in the Noise Element of the General Plan, the dominant noise source throughout the Planning Area is transportation related. These include motor vehicles, trains, and aircraft.

As shown in **Figure 5.11-2, 2003 Roadway Noise**, land uses adjacent to most City arterial roadways are within a CNEL 70 dB or higher noise contour, potentially exposing residents or visitors to excessive ambient noise levels. During peak travel hours, heavy traffic on Riverside's streets causes higher noise levels compared to noise levels during non-peak hours. The most heavily traveled roadways include Van Buren Boulevard, Alessandro Boulevard, Arlington Avenue, Tyler Street, La Sierra Avenue, Magnolia Avenue, University Avenue, and Martin Luther King Boulevard. These roadways have been designed specifically to carry large volumes, although long-established land use patterns have placed residential uses along some portions of these streets.

The primary noise generators in the City of Riverside include the SR-91, SR-60, and I-215 Freeways. **Figure 5.11-3, 2003 Freeway Noise**, shows the noise contours along these major freeways traversing the City of Riverside. As shown on **Figure 5.11-3**, 60 CNEL noise contours can extend as far as 3,500 feet from the I-215 Freeway east of the SR-91/I-215 interchange.

Large sections of adjacent land uses along the freeways are currently impacted by vehicular noise, including sensitive receptors such as residential neighborhoods. Some neighborhoods closest to freeways in the City experience noise levels above CNEL 70 dB(A), the highest level considered “normally acceptable” by the City for residential uses.

To address freeway noise along long-established routes, the California Department of Transportation (Caltrans) has a priority program and a policy to put sound walls adjacent to residential properties. Improvements to SR-91 that began in 1998 resulted in significant new sound walls and some relief from the noise associated with increasing regional traffic volumes.

Both the Union Pacific Railroad (UPRR) and the Burlington Northern Santa Fe Railroad (BNSF) operate and own rail lines that traverse the City of Riverside, each carrying freight trains. These lines are also shared by Metrolink commuter rail and Amtrak passenger rail. Train noise, however intermittent, is a significant source of noise due to its magnitude and the associated vibration effects. Train noise, as shown in **Figure 5.11-4, 2003 Railway Noise**, incorporates the sounds of the locomotive engine, wheel-on-rail noise and train whistles near at-grade roadway crossings. It should be noted that these depictions represent train noise based on data collected in 2003 and do not account for train horn noise conditions that changed in year 2004 with the

implementation new horn systems. **Figure 5.11-5, Train Horn Comparison**, shows the difference in dBA's between the new horn system and the previous train horn.

Another source of transportation noise involves air facilities in or near the Planning Area – Riverside Municipal Airport, March Air Reserve Base/March Inland Port (MARB/MIP), and Flabob Airport.

Riverside Municipal Airport, a general aviation airport, supports 100,000 annual flight operations, including corporate jet activity. This airport is located in the western portion of the City, off of Arlington Avenue. It is surrounded by single-family residential land uses. The airport covers a total of 451 acres and includes two runways. Flabob Airport, a recreational airport located in Riverside County in the unincorporated community of Rubidoux outside of the Planning Area, causes localized noise impacts in its immediate vicinity. Areas affected by the Riverside Airport include the Magnolia Center neighborhood and portions of the Arlanza neighborhood. According to the Airport Noise Contour map (Figure N-8 in the General Plan) for Flabob Airport; no areas within the Planning Area are affected by this airport.

MARB/MIP is home to the 452nd Air Mobility Wing of the U.S. Air Force and has plans to expand operations of commercial cargo transfer activities in the upcoming years. Military and civilian aircraft utilizing MARB/MIP produce substantial levels of noise over the southeastern portion of the City and the southern Sphere of Influence although MARB/MIP is located outside of the Planning Area. The MARB Air Installation Compatible Use Zone (AICUZ) calls for up to 33,637 annual operations with military aircraft accounting for 82 percent of the operations (Air Installation Compatible Use Zone Study for March Air Reserve Base August 2005).

The City has worked as part of the March Joint Powers Authority (March JPA) to adjust air traffic patterns into and out of the MARB/MIP. Efforts have been made to minimize exposure of sensitive land uses to excessive noise in the busy airspace of Ontario and Los Angeles International Airports. Additionally, topographic conditions surrounding MARB/MIP also constrain flight patterns. Established flight patterns associated with MARB/MIP will continue into the future.



LEGEND

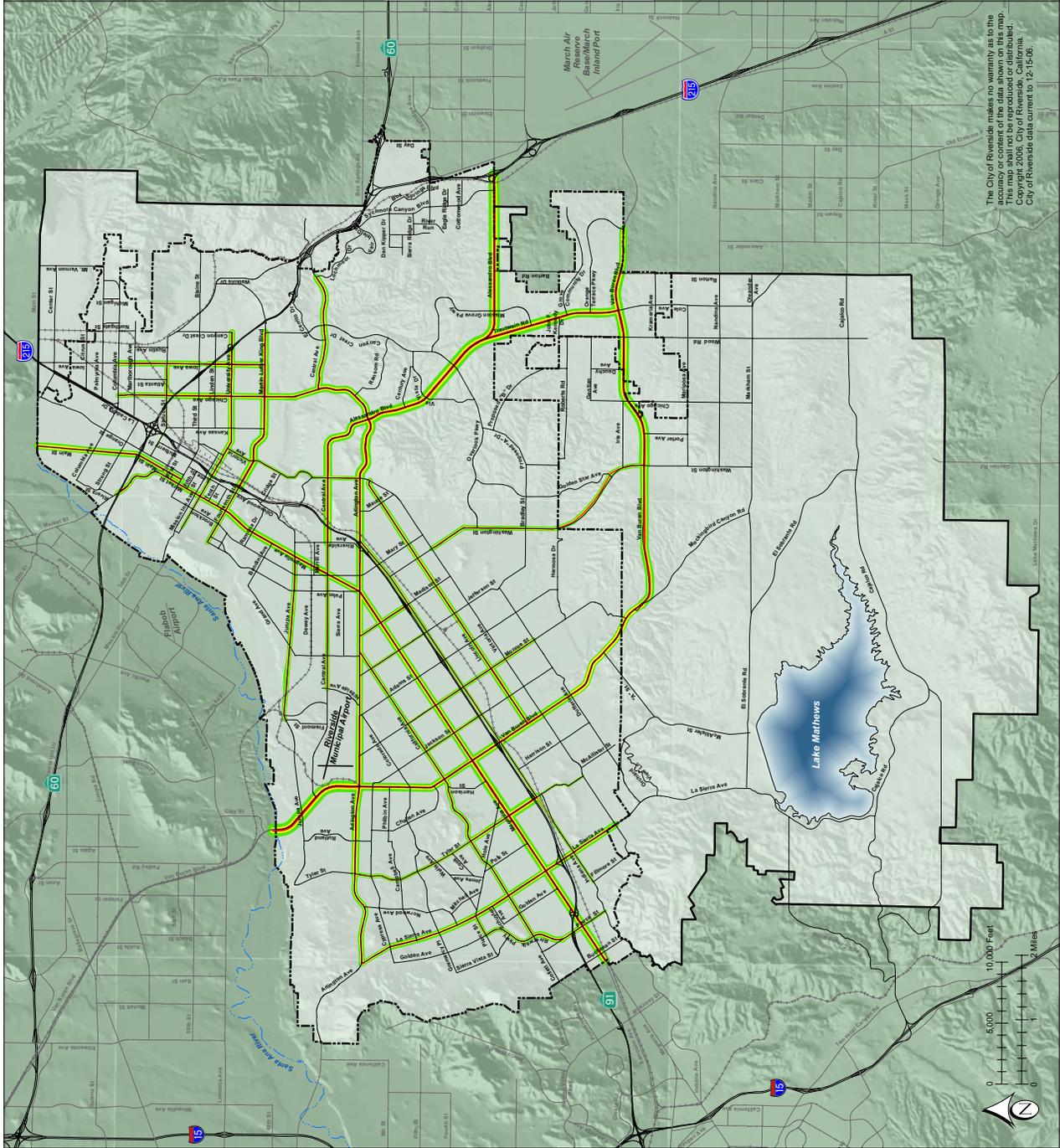
EXISTING NOISE

- 70 CNEL
- 65 CNEL
- 60 CNEL

- RIVERSIDE CITY BOUNDARY
- RIVERSIDE PROPOSED SPHERE OF INFLUENCE

NOTE: FOR AN EXPLANATION OF CNEL METHODOLOGY, PLEASE REFER TO THE NOISE ELEMENT TEXT.

SOURCE: CITY OF RIVERSIDE, AND P&D CONSULTANTS, 2005



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Figure 5.11-2
2003 ROADWAY NOISE



LEGEND

EXISTING NOISE

70 CNEL

65 CNEL

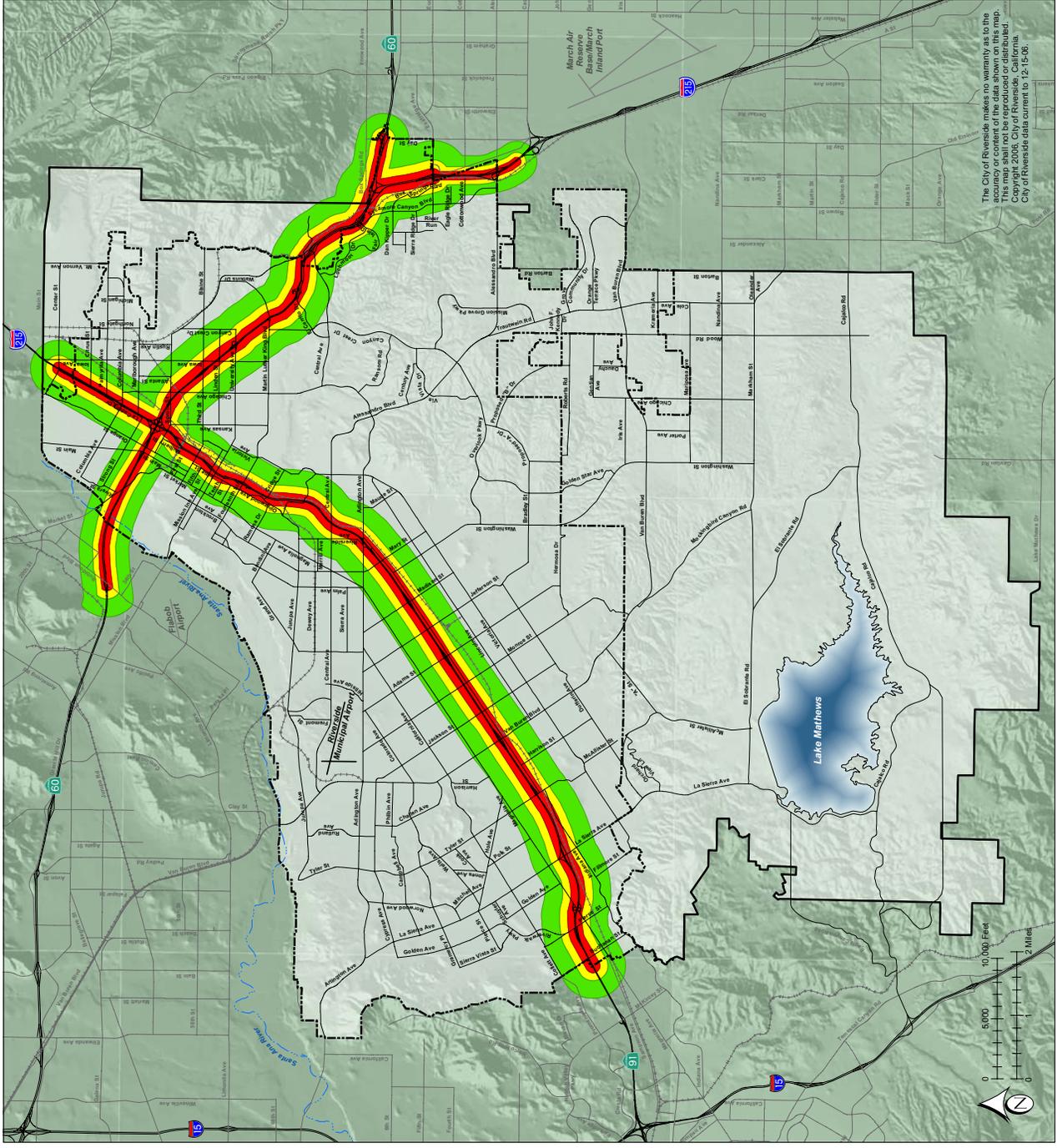
60 CNEL

RIVERSIDE CITY BOUNDARY

RIVERSIDE PROPOSED SPHERE OF INFLUENCE

NOTE: FOR AN EXPLANATION OF CNEL METHODOLOGY, PLEASE REFER TO THE NOISE ELEMENT TEXT.

SOURCE: CITY OF RIVERSIDE, AND P&D CONSULTANTS, 2005



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Figure 5.11-3
2003 FREEWAY NOISE



LEGEND

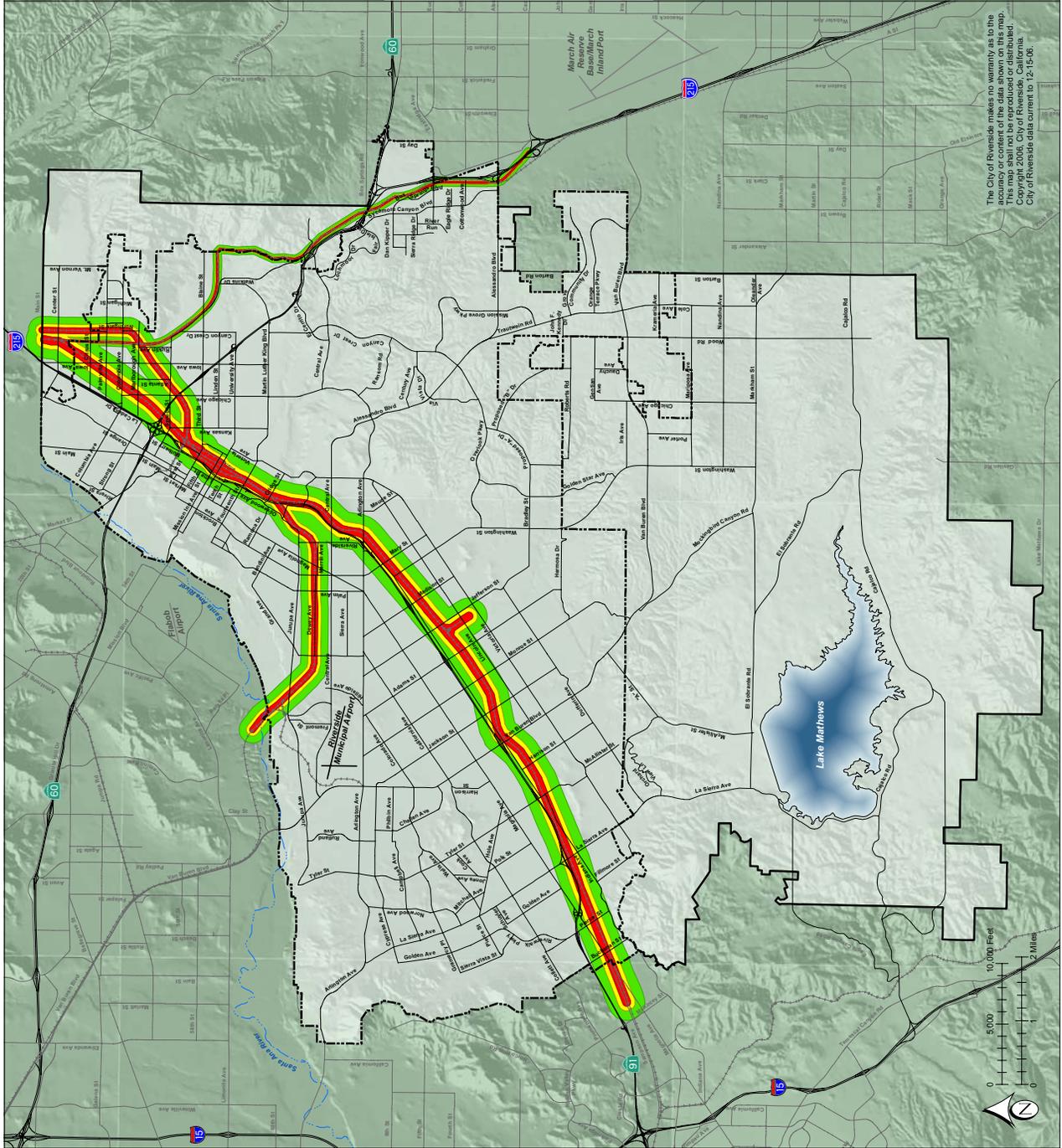
EXISTING NOISE

- 70 CNEL
- 65 CNEL
- 60 CNEL

- RIVERSIDE CITY BOUNDARY
- RIVERSIDE PROPOSED SPHERE OF INFLUENCE

NOTE: FOR AN EXPLANATION OF CNEL METHODOLOGY, PLEASE REFER TO THE NOISE ELEMENT TEXT.

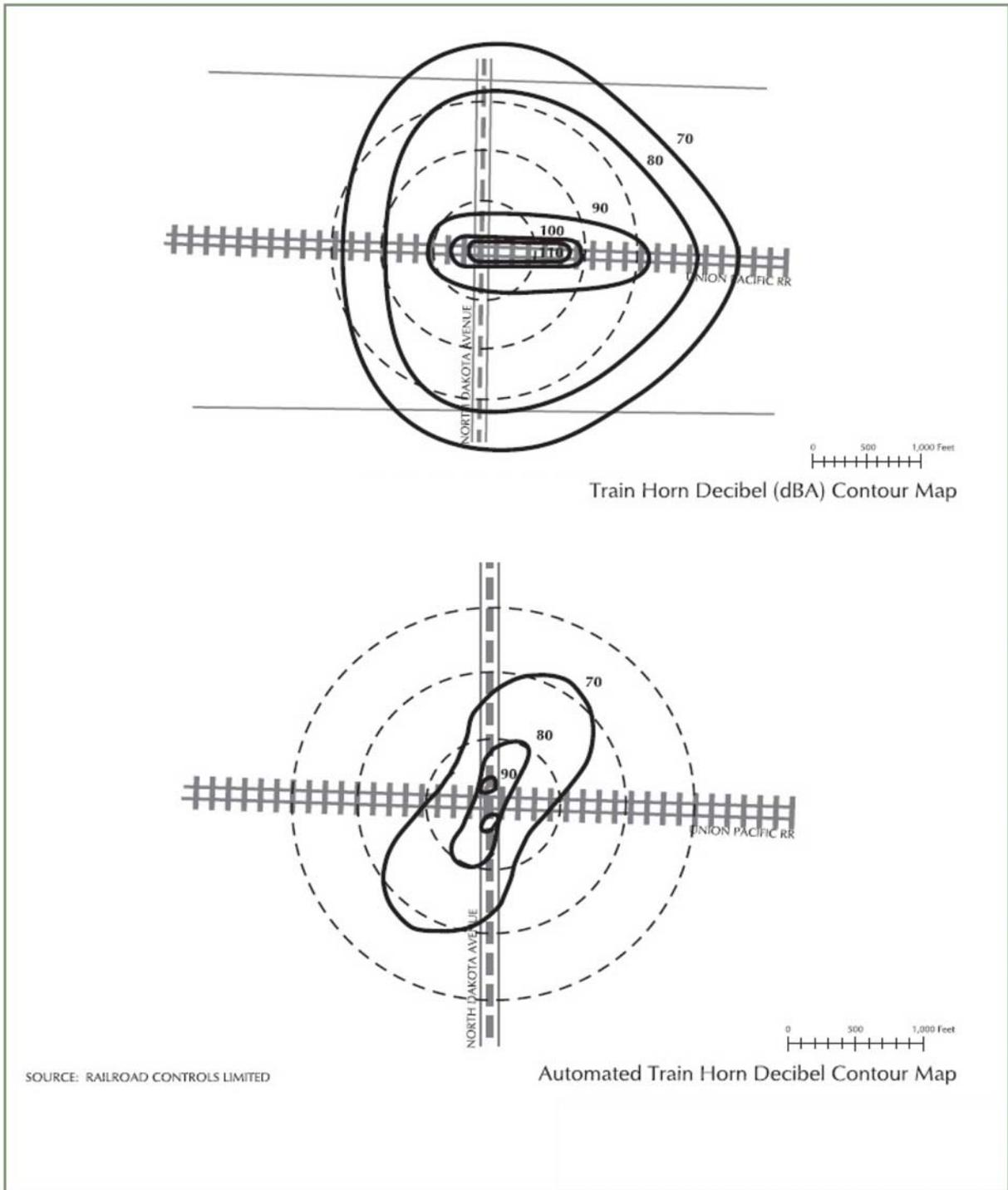
SOURCE: CITY OF RIVERSIDE, AND P&D CONSULTANTS, 2005



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Figure 5.11-4
2003 RAILWAY NOISE

**Figure 5.11-5
Train Horn
Comparison**



Thresholds of Significance

The City of Riverside has not established local CEQA significance thresholds as described in Section 15064.7 of the State CEQA Guidelines. Therefore, significance determinations utilized in this Section are from Appendix G of the CEQA Guidelines. A significant impact will occur if implementation of the project:

- exposes persons to or generates noise levels in excess of standards established in the local General Plan or Noise Code, or applicable standards of other agencies; or
- exposes persons to or generates excessive groundborne vibration or groundborne noise levels; or
- results in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or
- results in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; or
- exposes people residing or working in the project area to excessive noise levels for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport; or
- exposes people residing or working in the project area to excessive noise levels for a project within the vicinity of a private airstrip.

RELATED REGULATIONS

Federal Highway Administration

The Federal Highway Administration (FHWA) requires abatement of highway traffic noise for Federally funded highway projects as specified in Code of Federal Regulations (23 CFR Part 772).

Federal Transit Administration

The Federal Transit Administration (FTA) and Federal Railroad Administration (FRA) each recommend noise and vibration assessment/abatement for federally funded mass transit or high speed railroad projects that would pass by residential areas.

U.S. Department of Housing and Urban Development

The U.S Department of Housing and Urban Development (HUD) requires minimum noise insulation standards for HUD-funded housing projects as specified in Code of Federal Regulations (24 CFR Part 51, Subpart B).

Federal Aviation Administration

The Federal Aviation Administration (FAA) limits residential exterior or interior aircraft noise exposure to no more than 65 dBA CNEL or 45 dBA CNEL, respectively, under its Federal Aviation Regulation (FAR) Part 150 Noise Compatibility Planning program for airports.

Government Code Section 65302 (g)

California Government Code Section 65302(g) requires the preparation of a Noise Element, which shall identify and appraise the noise problems in the community. The Noise Element shall recognize the guidelines adopted by the Office of Noise Control in the State Department of Health Services and shall quantify to the extent practicable, current and projected noise levels for the following sources:

- Highways and Freeways
- Primary Arterials and major local streets
- Passenger and freight on-line railroad operations and ground rapid transit systems
- Aviation and airport related operations
- Local industrial plants
- Other ground stationary noise sources contributing to community noise environment.

The City's Noise Element can be found in the General Plan document. The Noise Element examines noise sources in the City with a view toward identifying and appraising the potential for noise conflicts and identifies ways to reduce existing and potential noise impacts to sensitive receptors. **Table 5.11-D, Noise/ Land Use Noise Compatibility Criteria**, below, depicts the noise compatibility criteria established by the City Noise Element. In particular, the Noise Element contains policies and programs to achieve and maintain noise levels compatible with various types of land uses. The Noise Element addresses noise, which affects the community at large, rather than noise associated with site-specific conditions. However, the programs in the Element do address effective strategies to reduce and limit community exposure to loud noise sources.

In regards to Land Use Compatibility Criteria, new construction or development should generally not be undertaken if it falls within the Conditionally Unacceptable range, unless it can be demonstrated that noise reduction requirements can be employed to reduce noise impacts to an acceptable level. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

**Table 5.11-D
 Noise/ Land Use Noise Compatibility Criteria**

Land Use Category	Community Noise Equivalent Level (CNEL) or Day-Night Level (Ldn), dB						
	55	60	65	70	75	80	85
Single Family Residential*							
Infill Single Family Residential*							
Commercial- Motels, Hotels, Transient Lodging							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Amphitheaters, Concert Hall, Auditorium, Meeting Hall							
Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Rec., Cemeteries							
Office Buildings, Business, Commercial, Professional							
Industrial, Manufacturing Utilities, Agriculture							
Freeway Adjacent Commercial, Office, and Industrial Uses.							

Nature of the noise environment where the CNEL or Ldn level is:

Below 55 dB
 Relatively quiet suburban or urban areas, no arterial streets within 1 block, no freeways within 1/4 mile.

55-65 dB
 Most somewhat noisy urban areas, near but not directly adjacent to high volumes of traffic.

65-75 dB
 Very noisy urban areas near arterials, freeways or airports.

75+ dB
 Extremely noisy urban areas adjacent to freeways or under airport traffic patterns. Hearing damage with constant exposure outdoors.

Legend:

- Normally Acceptable**
 Specific land use is satisfactory, based on the assumption that any building is of normal conventional construction, without any special noise insulation requirements.
- Conditionally Acceptable**
 New construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features included in design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
- Normally Unacceptable**
 New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in design.
- Conditionally Unacceptable**
 New construction or development should generally not be undertaken, unless it can be demonstrated that noise reduction requirements can be employed to reduce noise impacts to an acceptable level. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

The Community Noise Equivalent Level (CNEL) and Day-Night Noise Level (Ldn) are measures of the 24-hour noise environment. They represent the constant A-weighted noise level that would be measured if all the sound energy received over the day were averaged. In order to account for the greater sensitivity of people to noise at night, the CNEL weighting includes a 5-decibel penalty on noise between 7:00 p.m. and 10:00 p.m. and a 10-decibel penalty on noise between 10:00 p.m. and 7:00 a.m. of the next day. The Ldn includes only the 10-decibel weighting for late-night noise events. For practical purposes, the two measures are equivalent for typical urban noise environments.

* For properties located within airport influence areas, acceptable noise limits for single family residential uses are established by the Riverside County Airport Land Use Compatibility Plan.

SOURCE: STATE DEPARTMENT OF HEALTH, AS MODIFIED BY THE CITY OF RIVERSIDE

Title 24

California Code Regulations Title 24, Part 2 was adopted in 1974 by the California Commission on Housing and Community Development to set noise insulation standards for residential buildings. Title 24 establishes standards for interior noise attributable to outside noise sources and requires the preparation of acoustical studies wherever a residential building is proposed within the 60 dBA CNEL noise contour created by a freeway, expressway, parkway, major street, thoroughfare, rail line, rail transit line, or industrial noise source. Said acoustical study must show that the building has been designed to limit the intrusion of exterior noise such that interior noise levels do not exceed 45 dBA CNEL.

City of Riverside Municipal Code – Title 7

As shown in **Table 5.11-E, Riverside Municipal Code- Title 7 Interior and Exterior Noise Standards**, the City of Riverside’s Noise Code (Title 7- Ord.6273. 1) sets internal and external noise standards for specific land uses/zoning (Sections 7.25.010 and 7.30.015). The City Noise Code also has general noise regulations (Section 7.35.010), which regulates noise from construction activities, or any excessive or offensive noise, which causes discomfort to anyone of normal sensitivity.

Table 5.11-E Riverside Municipal Code- Title 7 Interior and Exterior Noise Standards		
Land Use	Noise Standards	
	Interior	Exterior
Residential	35 dBA (night 10p.m-7a.m)	45 dBA (night 10p.m-7a.m)
	45 dBA (day 7a.m-10p.m)	55 dBA (day 7a.m-10p.m)
Schools	45 dBA (7a.m -10p.m) while school is in session	---
Hospitals	45 dBA	---
Office/Commercial	---	65 dBA
Industrial	---	70 dBA
Community Support	---	60 dBA
Public Recreation Facility	---	65 dBA
Non-urban	---	70 dBA

Examination of the prior two tables shows that Title 7 and the City standards established in the Noise Element of the General Plan are not consistent. The standards in the existing Noise Code are more stringent than the State and General Plan standards. It must be noted that the intent of Title 7 is to protect one neighbor from another with respect to nuisance noise. Since ambient noise levels in many areas are higher than Title 7 limits, and due to the inconsistency of the regulations, an amendment of the Noise Code to achieve consistency with State and General Plan standards is therefore, proposed as part of the Project.

Riverside County Airport Land Use Commission

The Riverside County Airport Land Use Compatibility Plan, adopted by the Riverside County Airport Land Use Commission (ALUC), designates zones of airport-influence areas for 13 airports in Riverside County and provides a series of policies and compatibility criteria to ensure that both aviation uses and surrounding areas may continue and are compatible. The ALUC has two principal powers: (1) the ALUC must prepare and adopt an airport land use compatibility plan, which State law (Public Utility Code Section 21675 (a)) requires each local agency having jurisdiction over land uses within an ALUC’s planning area to modify its General Plan and any affected specific plan to be consistent with the compatibility plan, unless the local agency overrules the ALUC and (2) the ALUC must review plans, regulations and other actions of local agencies and airport operators for consistency with the compatibility plan. This General Plan Program has been reviewed and found consistent by the ALUC.

Related General Plan Policies

Implementation of the following General Plan policies will assist in minimizing adverse conditions to noise for the benefit of the City. The following policies related to noise standards for construction-related, point source and transportation-related noise sources will be implemented to substantially lessen noise impacts on new and existing developments.

Minimizing Noise Impacts

- Policy N-1.1: Continue to enforce noise abatement and control measures particularly within residential neighborhoods.
- Policy N-1.2: Require the inclusion of noise-reducing design features in development consistent with standards in (**Table 5.11-D, Noise/Land Use Compatibility Criteria**), Title 24 California Code of Regulations and Title 7 of the Municipal Code.
- Policy N-1.3: Enforce the City of Riverside Noise Control Code to ensure that stationary noise and noise emanating from construction activities, private developments/residences and special events are minimized.
- Policy N-1.4: Incorporate noise considerations into the site plan review process, particularly with regard to parking and loading areas, ingress/egress points and refuse collection areas.
- Policy N-1.5: Avoid locating noise-sensitive land uses in existing and anticipated noise-impacted areas.
- Policy N-1.6: Educate the public about City noise regulations.
- Policy N-1.7: Evaluate noise impacts from roadway improvement projects by using the City’s Acoustical Assessment Procedure.
- Policy N-1.8: Continue to consider noise concerns in evaluating all proposed development decisions and roadway projects.

- Policy N-2.1: Ensure that new development can be made compatible with the noise environment by using noise/land use compatibility standards (**Table 5.11-D, Noise/Land Use Noise Compatibility Criteria**) and the airport noise contour maps (found in the Riverside County Airport Land Use Compatibility Plans) as guides to future planning and development decisions.
- Policy N-2.2: Avoid placing noise-sensitive land uses (e.g., residential uses, hospitals, assisted living facilities, group homes, schools, day care centers, etc.) within the high noise impact areas (over 60 dB CNEL) for Riverside Municipal Airport and Flabob Airport in accordance with the Riverside County airport Land Use Compatibility Plan.
- Policy N-2.3: Support efforts of the Federal Aviation Administration and other responsible agencies to require the development of quieter aircraft.
- Policy N-2.4: Work with the Federal Aviation Administration and neighboring airport authorities to minimize the noise impacts of air routes through residential neighborhoods within the City.
- Policy N-2.5: Utilize the Airport Protection Overlay Zone, as appropriate, to advise landowners of special noise considerations associated with their development.
- Policy N-3.1: Avoid placing noise-sensitive land uses (e.g., residential uses, hospitals, assisted living facilities, group homes, schools, day care centers, etc.) within the high noise impact areas (over 65 dB CNEL) for March Air Reserve Base/March Inland Port in accordance with the Riverside County Airport Land Use Compatibility Plan.
- Policy N-3.2: Work with the Riverside County Airport Land Use Commission and the March Joint Powers Authority to develop noise/land use guidelines and City land use plans that are consistent with ALUC policies.
- Policy N-3.3: Carefully consider planned future operations of the March Air Reserve Base and March Inland Port in land use decisions for properties located within the airport-influenced area.
- Policy N-3.4: Support the noise/land use policies for the area adjacent to the March Air Reserve Base/March Inland Port through the adoption of the March JLUS into the Riverside County Airport Land Use Compatibility Plan.
- Policy N-4.1: Ensure that noise impacts generated by vehicular sources are minimized through the use of noise reduction features (e.g., earthen berms, landscaped walls, lowered streets, improved technology).
- Policy N-4.2: Investigate and pursue innovative approaches to reducing noise from railroad sources.
- Policy N-4.3: Identify and aggressively pursue funding sources to provide grade separations and sound walls along train routes as noise reduction measures.
- Policy N-4.4: Prioritize locations for implementing road/rail grade separations.

Policy N-4.5: Use speed limit controls on local streets as appropriate to minimize vehicle traffic noise.

Master Plan of Roadways

Policy CCM-2.9: Design all street improvement projects in a comprehensive fashion to include consideration of street trees, pedestrian walkways, bicycle lanes, equestrian pathways, signing, lighting, noise and air quality wherever any of these factors are applicable.

Trip Reduction

Policy CCM-6.2: Encourage the use of telecommunications by Riverside residents, employees, and students as a means to reduce air and noise pollution generated by traffic.

Airports

Policy CCM-11.7: Ensure environmental impacts such as noise, air quality, pollution, traffic congestion, and public safety hazards associated with continued operation of local airports are mitigated to the extent practicable.

Freight: Railways and Truck Movement

Policy CCM-12.3: Aggressively pursue grade-separated rail crossings to alleviate traffic congestion and associated air quality and noise impacts.

Relationship to Nearby Airports

Policy LU-22.3: Work to limit the encroachment of uses that potentially pose a threat to continued airport operations, including intensification of residential and/or commercial facilities within identified airport safety zones and areas already impacted by current or projected airport noise.

Policy LU-22.4: Adopt and utilize an Airport Protection Overlay Zone and the Riverside County airport Land Use Compatibility Plan as it affects lands within the City of Riverside.

Policy LU-22.5: Review all proposed projects within the airport influence areas of Riverside Municipal Airport, Flabob Airport or March Air Reserve Base/Inland Port Airport as noted on Figure PS-6 – Airport Safety Zones and Influence Areas (in the General Plan) for consistency with all applicable airport land use compatibility plan policies adopted by the Riverside County Airport Land Use Commission (ALUC) and the City of Riverside, to the fullest extent the City finds feasible.

Implementation of the following Implementation Plan Tools will also assist in minimizing adverse conditions to noise for the benefit of the City.

Tool N-1: Review development proposals to ensure that the noise standards and compatibility set forth in the Noise Element are met to the maximum extent practicable. Require acoustical analyses for all proposed development within the 60 dB CNEL contour as shown in the Noise Element and for all proposed

- residential projects within the vicinity of existing and proposed commercial and industrial areas. Require mitigation, where necessary, to reduce noise levels to meet standards and construction methods.
- Tool N-2: Implement CEQA during the development review process for new projects. Assess future development projects' potential for noise and ground-borne vibration impacts related to noise land use compatibility, construction-related noise, on-site stationary noise sources, and vehicular-related noise.
- Tool N-3: Continue to enforce City noise regulations to protect residents from excessive noise levels associated with nuisance and stationary noise sources (Title 7 of the City of Riverside Municipal Code). Periodically evaluate regulations for adequacy and revise, as needed, to address community needs and changes in legislation and technology.
- Tool N-4: Ensure proposed development meets Title 24 Noise Insulation Standards for construction.
- Tool N-5: Provide information packets and information on the City website regarding procedures about controlling interior and exterior acoustic environments such as sound insulation, double-pane glass window, sound walls, berming and other measures.
- Tool N-6: Refer noise complaints to the Code Enforcement Division.
- Tool N-7: Maintain City vehicles and equipment in good condition, with appropriate muffler devices to minimize noise emissions.
- Tool N-8: Implement applicable portions of the City Code that restrict routes where vehicles are limited by weight to reduce transportation-related noise impacts on sensitive land uses.
- Tool N-9: Enforce vehicle speed limits on City roadways as a means of reducing vehicle noise.
- Tool N-10: Where appropriate use electronic alternatives to train whistles at grade crossings such as automated horn systems.
- Tool N-11: Coordinate with RTA and commercial railway operators in identifying and prioritizing grade separation projects and construction of sound walls along train routes.

Environmental Impacts Before Mitigation

Threshold: *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.*

General Plan

Locations throughout the City would experience changes in noise levels as a result of an increase in motor vehicle traffic. Based on the future noise contour maps, **Figure 5.11-6, 7, and 8**, noise levels in excess of standards established by the City could occur where noise-sensitive land uses occur and will continue to be exposed to exterior noise levels that exceed the General Plan Noise Element standard of 65 dBA. Table **5.11-F, Existing and Future Noise Contour Comparison**, depicts existing and future noise levels for several roadways within the City. Most of the roadways currently exceed the General Plan Noise Element standards.

Implementation of policies such as avoiding locating noise sensitive land uses in existing and anticipated noise-impacted areas or ensuring new development is compatible with the noise environment (Policies N-1.5 and 2.1), would reduce noise impacts to future land uses. The City's Implementation Plan also provides tools for reducing noise impacts, tools N-1 through N-11, by addressing transportation related sources such as maintaining City vehicles, enforcing vehicle speed, electronic alternatives to train whistles, and proposed grade separations. Although future development must be sited or designed to comply with General Plan policies and implementation tools to reduce noise impacts to less than significant levels, the policies would do little to remediate noise effects on existing land uses.

Existing noise levels exceed standards in some locations around the City, as shown in **Table 5.11-F**, and the General Plan build out will increase noise levels through population growth and additional traffic. Existing sensitive land uses will continue to be exposed to noise levels in excess of established standards set forth in the General Plan Noise Element. Therefore, even with implementation of the above-mentioned General Plan policies and implementation tools, existing land uses will be exposed to noise levels in excess of the General Plan Noise Element standards, which will result in a **significant impact**.

As stated above, through implementation of Tool N-1, proposed land uses will be compatible with the noise environment. Review of the future noise levels and the General Plan land uses proposed indicates that some land uses may fall within the "Normally Unacceptable" or "Conditionally Unacceptable" situations as identified on Table 5.11-D, herein, which is the compatibility matrix from the Noise Element. By requiring new development proposals to adhere to the noise standards and compatibility matrix in the Noise Element, and to provide noise mitigation as necessary, the City will ensure that new development complies with applicable noise standards. Thus, by implementing **MM Noise 1 and MM Noise 2**, below, as well as General Plan policies and Implementation Plan tools related to noise, impacts related to noise levels in excess of City standards for proposed land uses is considered **less than significant**. As

stated in the previous paragraph, existing land uses exposed to noise levels in excess of the General Plan Noise Element standards will remain significant, however.

Noise Code Amendment

The Noise Code amendment will bring the Noise Code into consistency with the proposed Noise Element of the General Plan and State regulations, and to facilitate development of mixed-use and in-fill uses. The current Noise Code has interior noise standards for residential at 35 dBA (at night) and 45 dBA (during the day). This standard is lower than State regulations, which are 45 dBA (day and night). The existing Noise Code is designed to lower the noise impact to its residents and visitors from noise created by other residents or visitors (nuisance noise). But these standards currently cannot be met due to existing exterior noise conditions, throughout much of the City along major roadways. Negative impacts may occur to existing areas where the current Noise Code (35 dBA & 45 dBA) is being met and their neighbors exceed these levels. By increasing the noise levels, which are allowed, both interior at night and exterior, these existing receptors will have less protection from nuisance noise. Impacts are considered to be **significant** to existing receptors. Additionally, the proposed Noise Code amendment would increase the interior noise limit for mixed-use and in-fill development. Standard construction and insulation would be expected to reduce interior noise levels to 24 dBA below exterior levels with windows and doors closed. Thus, it may not be possible to achieve the 45 dBA interior standard in areas with exterior noise levels exceeding 69 dBA. Table 5.11-I indicates that at some locations within the City along major transportation corridors, exterior noise levels already exceed 70 dBA. In furtherance of Smart Growth principles, the City has designated certain mixed-use areas along major transportation routes, such as University Avenue. The purpose of doing so is to provide residents easy access to public transportation and to reduce traffic impacts in other parts of the City. Because certain corridors, including University Avenue, already exceed 70 dBA, strict application of the 45 dBA interior noise limit could preclude such mixed-use developments along those corridors. The City has therefore, determined that in order to promote mixed-use development as illustrated on the proposed Land Use Map, the interior noise standard should be raised by 5 dBA for mixed-use and in-fill developments. Section 1207.5 of Title 24 of the California Code of Regulations allows cities to modify the noise insulation standards by ordinance, pursuant to section 17922.7 of the California Health and Safety Code, as “reasonably necessary due to local conditions.” Thus, in order to implement the Land Use Map and the Smart Growth policies behind it, the City has determined that local conditions make the 5 dBA increase in interior noise standards necessary for mixed-use and in-fill developments. Future residents who meet proposed Noise code levels will not experience an adverse change related to noise levels; however, because the Noise Code amendment would increase interior noise standards above the standard established in Title 24, this change is **considered significant**.

Magnolia Avenue Specific Plan

Development under the proposed General Plan takes into account all projected future growth and development within the MASP. Review of **Table 5.11-I, Existing and Future Noise Contour Comparison**, indicates that Magnolia Avenue is currently exceeding City noise standards of 65 dBA by approximately 10 dBA or more; it is also anticipated that it will continue to exceed the General Plan Noise Element standard by more than 10 dBA. Implementation of the MASP is not

expected to increase traffic levels beyond those analyzed for the General Plan. The MASP proposes alternate transportation modes and pedestrian friendly land uses to help alleviate traffic increases due to growth and automobile dependency. However, such reductions have cannot be quantified. Therefore, impacts related to noise levels in excess of City standards are considered **significant impact without mitigation**.

By requiring development proposals within the MASP to adhere to the noise standards and compatibility matrix in the Noise Element, the City will ensure that new development complies with applicable noise standards. Thus, by implementing **MM Noise 1 and MM Noise 2** below, as well as General Plan policies and Implementation Plan tools related to noise, impacts related to noise levels in excess of City standards is considered **less than significant**.

Citywide Design and Sign Guidelines (Design Guidelines)

Under the Design Guidelines, wall height is limited for aesthetic reasons. Limitations or maximum wall heights could reduce the ability to maintain exterior noise levels in some locations to levels required by Title 24 of the California Code of Regulations and the City's Noise Code. In the cases where mitigation measure MM Noise 1, in the City's General Plan 2025 EIR, is implemented, the City may consider increased wall height as one measure to reduce noise to acceptable levels. In such high level noise situations, combinations of setbacks, site design, berms, and solid walls, including walls higher than normally permitted by Code or these Design Guidelines, may be used to achieve noise standards.

Threshold: *Expose persons to or generate excessive groundborne vibration or groundborne noise levels.*

General Plan

Implementation of the General Plan could expose persons to excessive groundborne noise levels. Particular problems could arise in cases where noise-producing uses are located immediately adjacent to sensitive uses, such as manufacturing uses near residences or schools.

Although train vibration is intermittent, it is a significant source of groundborne noise. Train vibration can be felt outdoors but is more intense indoors due to the shaking of the structure. This is especially a problem for nearby neighbors of a transit system route or heavily used freight train line. Heavy locomotives on diesel commuter or freight systems have an average vibration level of 80-85 VdB. If there is unusually rough track, rail cars have wheel flats, geologic conditions that help increase vibration, or a locomotive have a very stiff suspension system, the vibration levels can be an average of 90-95 VdB. According to the Federal Transit Authority, Transit Noise and Vibration Impact Assessment, when vibration levels in a residential area reach 85 VdB, most people will be strongly affected by the vibration. The majority of trains that run through the City are diesel powered heavy locomotives on freight systems. The Metrolink system is a commuter train that is powered by diesel locomotives. **Figure 5.11-4, 2003 Railway Noise**, depicts the locations affected by railway noise and vibration. The Implementation Plan addresses groundborne vibration, Tool N-11 focuses on coordinating with commercial railway operators to identify and prioritizing grade separation projects and construction of sound walls along train

routes. With implementation of the Implementation Plan tools, especially Tool N-11 and N-1, impacts related to excessive groundborne vibration are considered **less than significant for uses not located immediately adjacent to railroad tracks**.

Impacts related to excessive vibration to existing land uses currently do occur, proposed mitigation can reduce vibration impacts for some proposed development, however, it is not feasible to relocate every existing sensitive receptor located within the 65 VdB contour shown on Figure 5.11-4 with respect to train routes. Future infill projects along train routes may also be affected by vibration; therefore, there is no feasible mitigation available for this impact. **Impacts would be significant** yet intermittent to **existing and proposed sensitive land uses located adjacent to rail lines**. Implementation of **MM Noise 3**, will reduce, but not eliminate impacts therefore, impact **remain significant**.

Construction related activities although short term, are the most common source of groundborne noise that could affect occupants of neighboring uses throughout the City. **Table 5.11-G, Vibration Source Levels for Construction Equipment**, identifies vibration levels for common types of construction equipment. The City Municipal Code Section 7.35.010 restricts construction to specific hours of the day and certain days of the week, unless a variance is obtained. Variances are only granted for emergencies and unusual circumstances. The Implementation Plan also addresses ground-borne vibration; Tool N-2 implements CEQA during development review for new projects. This assesses future projects' potential for noise and ground-borne vibration impacts related to construction noise and will allow for mitigation to be developed to reduce or eliminate potential impacts on a case-by-case basis. Impacts related to construction vibration are location-specific and are not expected to be citywide. Construction activities are temporary and limited. As the General Plan does not propose any specific construction project, and with implementation of the City Municipal Code and Implementation Plan Tool N-2, impacts related to excessive groundborne vibration **due to construction activities are considered less than significant** at the General Plan programmatic level.

Equipment	Approximate VdB at 25 feet
Large Bulldozer	87
Caisson Drilling	87
Loaded Trucks	86
Jackhammer	79
Small Bulldozer	58

Source: Federal Transit Administration 2006

Noise Code Amendment

The Noise Code does not address groundborne vibration. Therefore, it does not cause or mitigate for ground-borne vibration. Implementation would have **no impact**.

Magnolia Avenue Specific Plan

Development under the proposed General Plan takes into account all projected future growth and development within the MASP. The MASP would contribute to the increase in new development. Construction related activities are the most common source of groundborne noise that could affect occupants of neighboring uses within the MASP. There are no uses proposed in the MASP, which would be long-term sources of groundborne vibration. Impacts related to construction vibration are temporary and limited as discussed previously; therefore, impacts would be **less than significant**.

Citywide Design and Sign Guidelines

No Design Guideline standards relate to vibration. Implementation would have **no impact**.

Threshold: *Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.*

General Plan

Figure 5.11-6, 2025 Roadway Noise and **Table 5.11-H, Projected Noise Contour Measurements for Year 2025**, depict anticipated buildout noise contours associated with vehicular noise on arterials within the Planning Area. In some portions of the community, the 65 dB noise contours could expand to approximately 300 feet from centerline, although 140 feet is the numerical average over all roadway segments.

Future noise contours from freeway sources are shown in **Figure 5.11-7, 2025 Freeway Noise**, have been projected based on information about existing and projected land use development and transportation activity. Based on measurements taken off Figure 5.11-7, in some portions of the community, the 60 dB and 70 dB noise contours could expand to as far as 4,000 feet and 2,000 feet from freeway centerlines, respectively (assuming no noise-attenuating features, such as sound walls).

Future noise contours resulting from train passing are shown in **Figure 5.11-8, 2025 Railway Noise**. In some portions of the community, the 60 dB noise contour could expand to more than 5,000 feet from particular rail lines, based on measurements taken off Figure 5.11-8. The 70 dB contours affects areas within approximately 2,400 feet of the rail line. The analysis does not account for future separated grade crossings or other noise-attenuating features.

Table 5.11-H, Projected Noise Contour Measurements for 2025, lists the future roadway noise levels within the City with implementation of the General Plan. The increase in roadway noise levels from the existing condition compared to future condition is shown on **Table 5.11-I, Existing and Future Noise Contour Comparison**. Many of the roadway segments studied will have a substantial increase in noise. Many of the affected segments are located in areas where commercial development would occur, but not all. Based on the modeling, the changes in motor vehicle trips and circulation patterns would increase noise levels within the City by a maximum of 8 dBA CNEL, although most increases are between 1 and 4 dBA. It is important to mention

that the significance in increase to noise levels is dependent on existing noise levels. For example, a roadway noise that increases 3 dBA CNEL may not be significant for one roadway segment, but may be significant on another, depending on the roadway segment's existing noise level, and depending on the surrounding land uses. Also, not all roadway segments in the City were measured and could be below or above City noise standards. Roadways in the Sphere Area were not measured because the area is currently more rural and therefore, less noisy than the more urbanized areas within the City.

The City of Riverside does not have an established standard that ties a specific increase in ambient noise to a significance determination. Although the City relies on the noise compatibility matrix in the Noise Element (Table 5.11-D, herein) to determine if a future development project will be subject to significant noise impacts, whether self-created or from the existing environment, this threshold related to ambient noise levels is not addressed by that approach.

The term “substantial,” as used in this threshold, is not defined in most environmental compliance guidelines. Noise analysis methodology is accurate only to the nearest whole decibel and most people only notice a change in the noise environment when the difference in noise levels are around 3 dB CNEL. An increase or decrease in noise level of at least 5 dBA is required before any noticeable change in community response would be expected. Therefore, a clearly perceptible increase (+5 dB) in noise exposure of sensitive receptors could be considered significant. Therefore, because the General Plan will add people, automobiles and businesses to the community, and the ambient noise level will increase up to 8 dBA in some areas, and because not all areas of the City were measured, the General Plan will result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. **Impacts to ambient noise levels are considered significant and unavoidable.**



LEGEND

PROPOSED NOISE

70 CNEL

65 CNEL

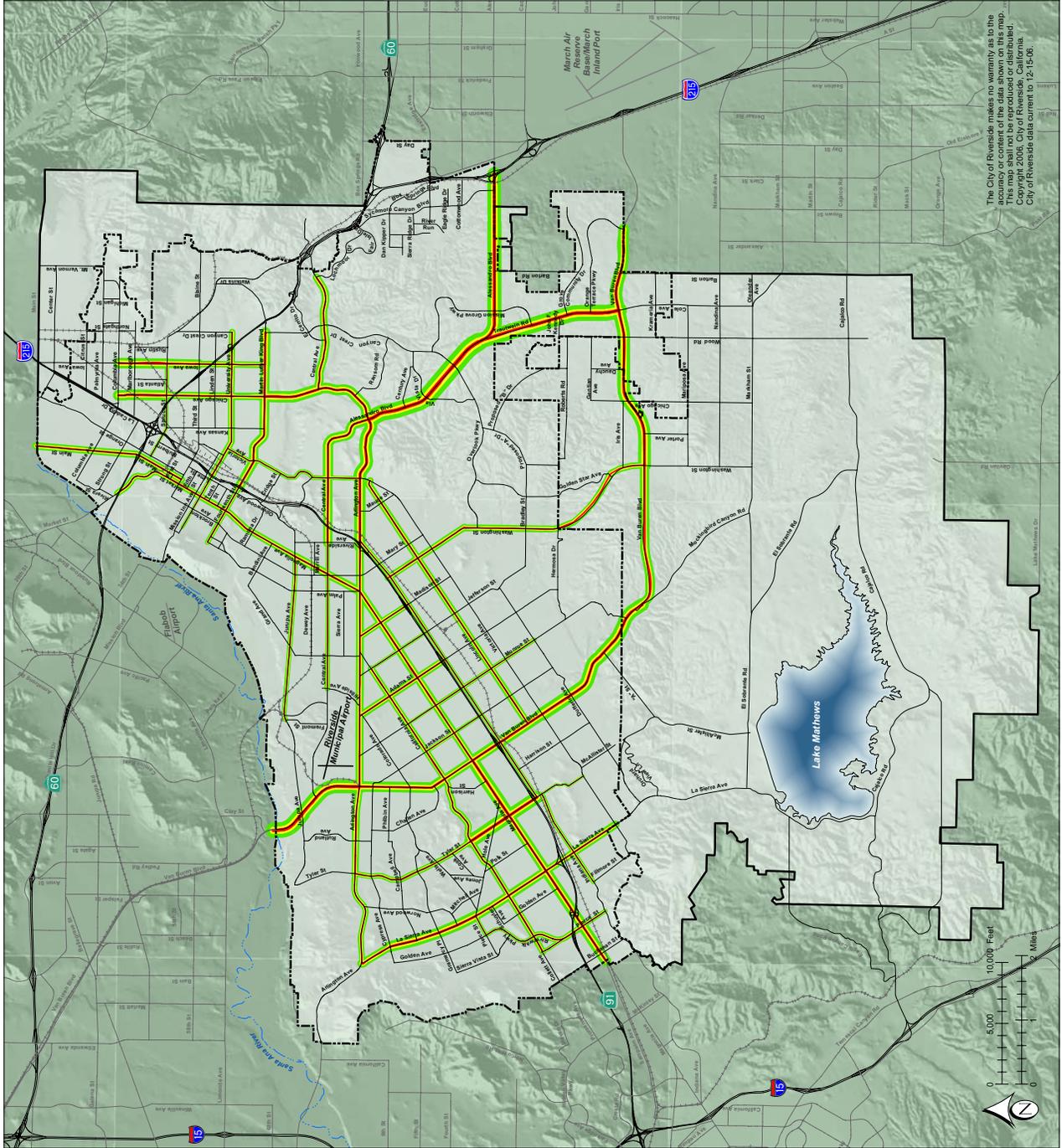
60 CNEL

--- RIVERSIDE CITY BOUNDARY

— RIVERSIDE PROPOSED SPHERE OF INFLUENCE

NOTE: FOR AN EXPLANATION OF CNEL METHODOLOGY, PLEASE REFER TO THE NOISE ELEMENT TEXT.

SOURCE: CITY OF RIVERSIDE, AND P&D CONSULTANTS, 2005



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Figure 5.11-6
2025 ROADWAY NOISE

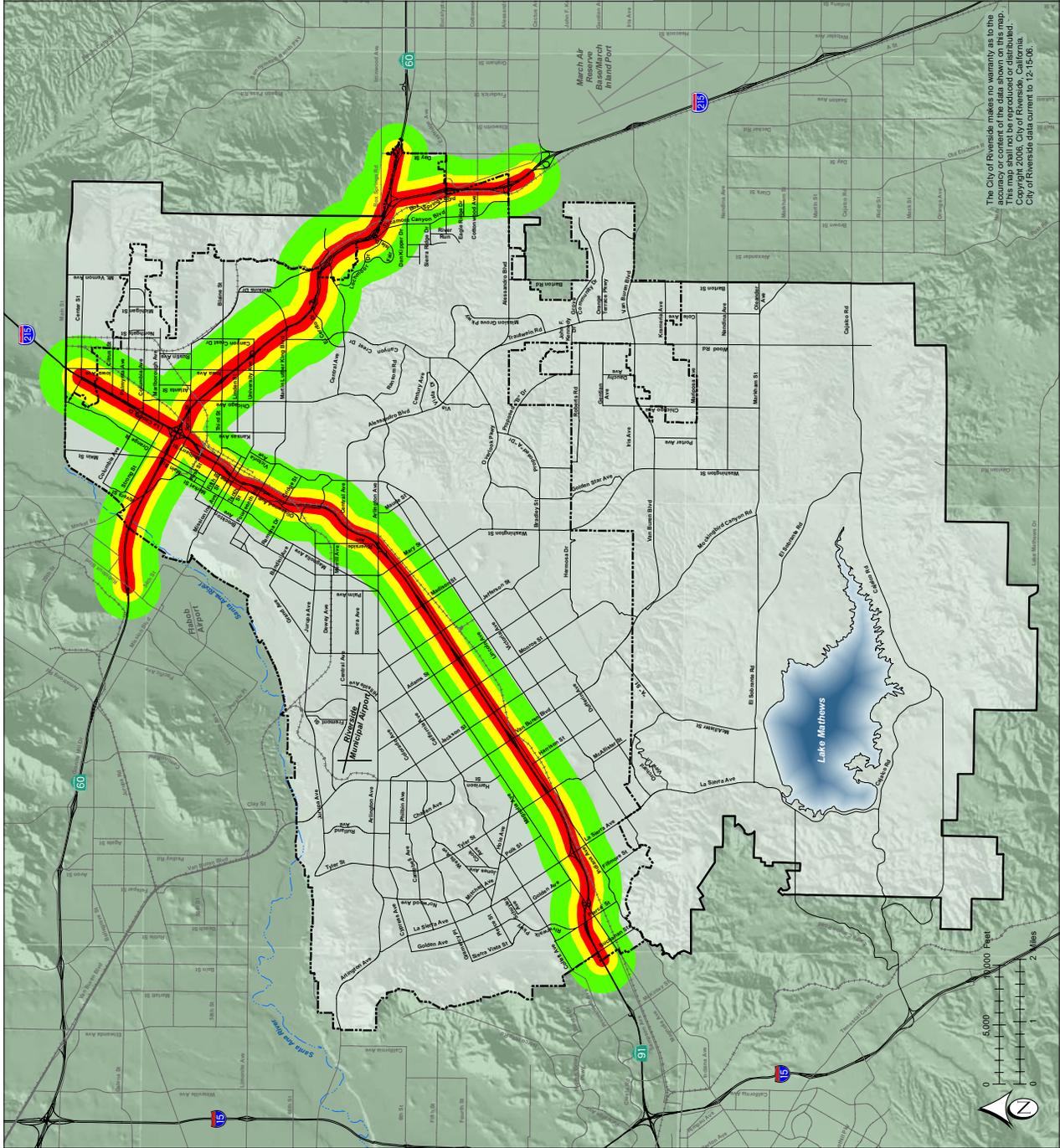


- LEGEND**
- PROPOSED NOISE**
- 70 CNEL
 - 65 CNEL
 - 60 CNEL

- RIVERSIDE CITY BOUNDARY
- RIVERSIDE PROPOSED SPHERE OF INFLUENCE

NOTE: FOR AN EXPLANATION OF CNEL METHODOLOGY, PLEASE REFER TO THE NOISE ELEMENT TEXT.

SOURCE: CITY OF RIVERSIDE, AND P&D CONSULTANTS, 2005



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Figure 5.11-7
2025 FREEWAY NOISE



LEGEND

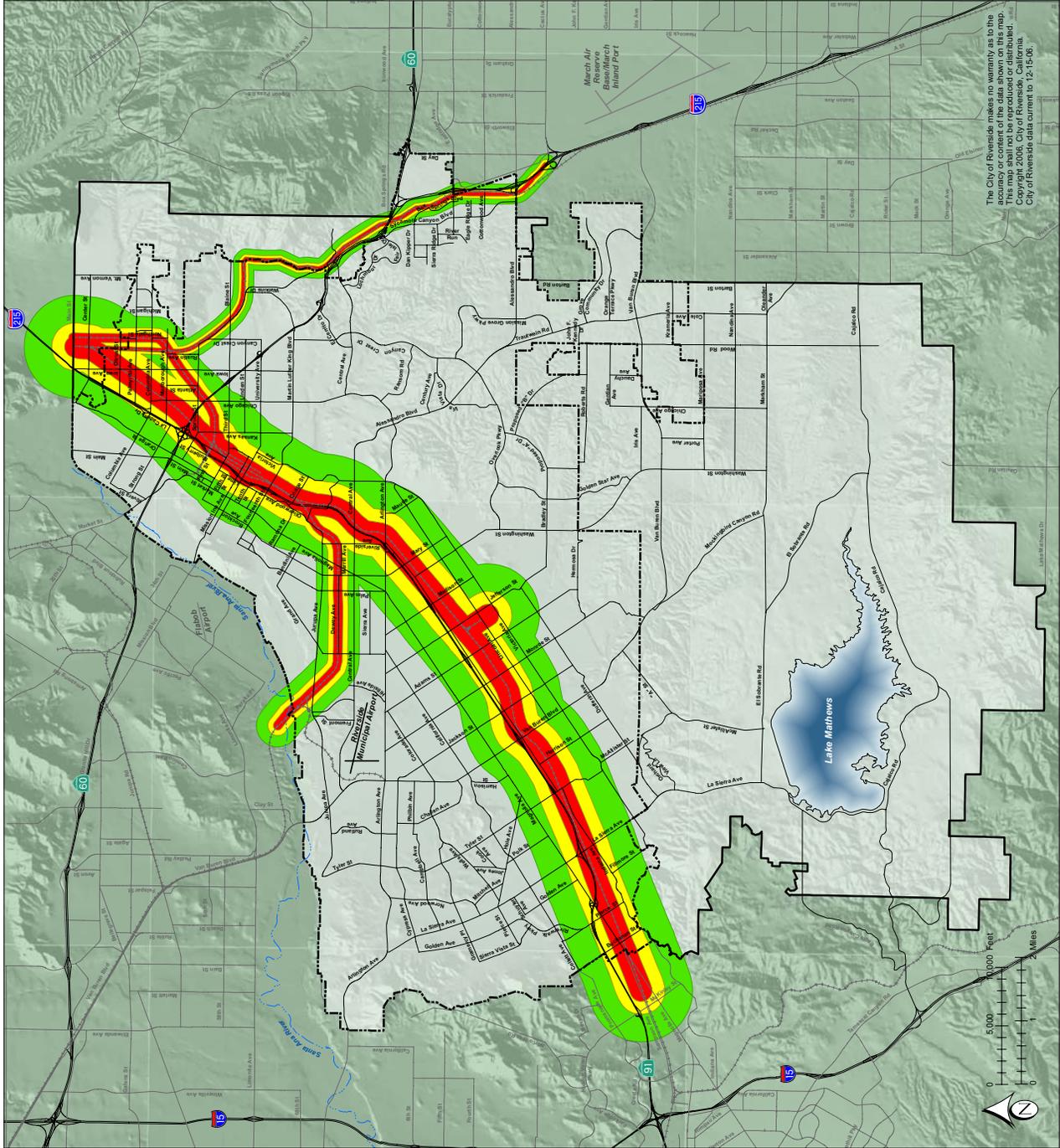
PROPOSED NOISE

- 70 CNEL
- 65 CNEL
- 60 CNEL

- RIVERSIDE CITY BOUNDARY
- RIVERSIDE PROPOSED SPHERE OF INFLUENCE

NOTE: FOR AN EXPLANATION OF CNEL METHODOLOGY, PLEASE REFER TO THE NOISE ELEMENT TEXT.

SOURCE: CITY OF RIVERSIDE, AND P&D CONSULTANTS, 2005



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Figure 5.11-8
2025 RAILROAD NOISE

Table 5.11-H Projected Noise Contour Measurements for Year 2025			
Roadway Segment	Distance to <i>Future</i> CNEL Contour Lines from Near Lane Centerline (feet)		
	60dB	65dB	70dB
Adams Street			
B/W Indiana Ave. and Magnolia Ave.	296	137	64
B/W Magnolia Ave. and Arlington Ave.	304	141	65
Alessandro Boulevard			
B/W Mission Grove Pkwy. and Northrop Dr.	580	269	125
B/W Mission Grove Pkwy. and Trautwein Rd.	593	275	128
B/W Sycamore Canyon Blvd. and Camino del Oro	560	260	121
B/W Trautwein Rd. and Via Vista Dr.	753	349	162
B/W Via Vista Dr. and Chicago Ave.	664	308	143
Arlington Avenue			
B/W Alessandro Blvd. and Victoria Ave.	520	241	112
B/W Magnolia Ave. and Streeter Ave.	320	148	69
B/W Monroe St. and Adams St.	327	152	70
B/W SR-91 Freeway and Magnolia Ave.	336	156	72
B/W Tyler St. and Norwood Ave.	245	114	53
B/W Van Buren Blvd. and Rutland Ave.	304	141	66
B/W Victoria Ave. and SR-91 Freeway	471	219	102
Buchanan Street			
B/W Magnolia Ave. and Indiana Ave.	109	51	24
B/W Magnolia Ave. and SR-91 Freeway	232	108	50
California Avenue			
B/W Adams St. and Jefferson St.	275	128	59
B/W Van Buren Blvd. and Jackson St.	275	128	59
Central Avenue			
B/W Chicago Ave. and Canyon Crest Dr.	342	159	74
B/W Glen Haven Ave. and Chicago Ave.	299	139	64
B/W Hillside Ave. and Streeter Ave.	230	107	50
B/W Lochmoor Dr. and Canyon Crest Dr.	312	145	67
B/W Victoria Ave. and SR-91 Freeway	388	180	84
B/W Streeter Ave. and Palm Ave.	176	82	38
B/W Victoria Ave. and Glen Haven Ave.	419	195	90
Chicago Avenue			
B/W Central Ave. and Alessandro Blvd.	430	200	93
B/W Martin Luther King Jr. Blvd. and Central Ave.	475	221	102
B/W Spruce St. and Columbia Ave.	259	120	56
B/W University Ave. and Martin Luther King Jr. Blvd.	316	146	68
Indiana Avenue			
B/W Harrison St. and Van Buren Blvd.	190	88	41
B/W Madison St. and Jefferson St.	221	103	48
B/W Monroe St. and Jackson St.	170	79	37
Iowa Avenue			
B/W Columbia Ave. and Spruce St.	432	200	93
B/W Third St. and Blaine Street/Spruce St.	381	177	82

Table 5.11-H Projected Noise Contour Measurements for Year 2025			
Roadway Segment	Distance to <i>Future</i> CNEL Contour Lines from Near Lane Centerline (feet)		
	60dB	65dB	70dB
B/W SR-60 Freeway and Third St./Blaine St.	268	124	58
Jackson Street			
B/W Magnolia Ave. and California Ave.	187	87	40
B/W Magnolia Ave. and Indiana Ave.	201	93	43
Jefferson Street			
B/W Magnolia Ave. and California Ave.	143	67	31
B/W Magnolia Ave. and Indiana Ave.	144	67	31
Jurupa Avenue			
B/W Palm Ave. and Grand Ave.	208	97	45
B/W Streeter Ave. and Fremont St.	198	92	43
La Sierra Avenue			
B/W Cypress Ave. and Arlington Ave.	330	153	71
B/W Magnolia Ave. and Collett Ave	376	175	81
B/W Magnolia Ave. and SR-91 Freeway	325	151	70
B/W Pierce St. and Gramercy Pl.	453	210	98
B/W Victoria Ave. and Arizona Ave.	406	189	88
Lincoln Avenue			
B/W Adams St. and Jefferson St.	334	155	72
B/W Jackson St. and Monroe St.	292	135	63
Madison Street			
B/W Magnolia Ave. and Arlington Ave.	269	125	58
B/W Magnolia Ave. and Indiana Ave.	262	122	56
Magnolia Avenue			
B/W Monroe St. and Jackson St.	327	152	70
B/W Central Ave. and Jurupa Ave.	340	158	73
B/W La Sierra Ave. and SR-91 Freeway	438	203	94
B/W Tyler St. and Van Buren Blvd.	409	190	88
B/W La Sierra Ave. and Tyler St.	510	237	110
Main Street			
B/W Colombia Ave. and SR-60 Freeway	309	143	67
Market Street			
B/W 1 st St. and SR-60 Freeway	270	125	58
B/W Mission Inn Ave. and 14 th St.	290	135	63
Martin Luther King Jr. Boulevard			
B/W Canyon Crest Dr. and Chicago Ave.	435	202	94
B/W Chicago Ave. and Iowa Ave.	395	183	85
Monroe Street			
B/W Magnolia Ave. and California Ave.	127	59	27
B/W Magnolia Ave. and Indiana Ave.	187	87	40
Pierce Street			
B/W Magnolia Ave. and Indiana Ave.	147	68	32
B/W Magnolia Ave. and Riverwalk Pkwy.	257	119	55
B/W Riverwalk Pkwy. and La Sierra Ave.	169	79	36
Riverwalk Pkwy			

Table 5.11-H Projected Noise Contour Measurements for Year 2025			
Roadway Segment	Distance to <i>Future</i> CNEL Contour Lines from Near Lane Centerline (feet)		
	60dB	65dB	70dB
B/W Pierce St. and La Sierra Ave.	254	118	55
Spruce Street			
B/W Chicago Ave. and Iowa Ave.	169	79	37
B/W Chicago Ave. and Kansas Ave.	146	68	32
B/W Kansas Ave. and Orange Ave.	126	59	27
Trautwein Road			
B/W John F. Kennedy Dr. and Alessandro Blvd.	646	300	139
B/W Orange Terrace Pkwy. and John F. Kennedy Dr.	660	306	142
Tyler Street			
B/W Indiana Ave. and Victoria Ave.	119	55	26
B/W Magnolia Ave. and California Ave.	546	254	118
B/W Magnolia Ave. and Indiana Ave.	514	239	111
B/W Wells Ave. and Cypress Ave.	238	110	51
University Avenue			
B/W Chicago Ave. and Iowa Ave.	265	123	57
B/W Kansas Ave. and Chicago Ave.	276	128	59
B/W Market St. and Lime Ave.	187	87	40
B/W Market St. and Redwood Dr.	143	66	31
Van Buren Boulevard			
B/W Arlington Ave. and Central Ave.	566	263	122
B/W Barton Rd. and Orange Terrace Pkwy.	451	209	97
B/W Central Ave. and Jurupa Ave.	571	265	123
B/W Cypress Ave. and Wells Ave.	435	202	94
B/W Indiana Ave. and Magnolia Ave.	422	196	91
B/W Magnolia Ave. and California Ave.	350	163	75
B/W Mockingbird Canyon Rd. and Washington St.	383	178	83
N/ Jurupa Ave.	649	301	140
B/W Victoria Ave. and Dufferin Blvd.	541	251	117
B/W Victoria Ave. and Indiana Ave.	456	211	98
B/W Wood Rd. and Chicago Ave.	521	242	112
Victoria Avenue			
B/W Adams St. and Jefferson St.	98	46	21
B/W Central Ave. and Arlington Ave.	180	84	39
B/W Central Ave. and Cridge St.	187	87	40
B/W Harrison and Tyler St.	132	61	29
B/W Madison Ave. and Washington St.	111	52	24
B/W Jackson St. and Monroe St.	85	39	18
Washington Street			
B/W Bradley St. and Overlook Pkwy.	277	128	60
B/W Overlook Pkwy. and Victoria Ave.	286	133	62
Watkins Drive			
B/W Mount Vernon Ave. and SR-60 Freeway	261	121	56
Source: CBA, 2004.			
B/W = Between			

Table 5.11-I Existing and Future Noise Contour Comparison			
Roadway Segment	CNEL at Property Line		
	Baseline Year 2003	Year 2025	Difference
Adams Street			
B/W Indiana Ave. and Magnolia Ave.	75	75	0
B/W Magnolia Ave. and Arlington Ave.	72	75	3
Alessandro Boulevard			
B/W Mission Grove Pkwy. and Northrop Dr.	76	78	2
B/W Mission Grove Pkwy. and Trautwein Rd.	76	78	2
B/W Sycamore Canyon Blvd. and Camino del Oro	77	79	2
B/W Trautwein Rd. and Via Vista Dr.	78	81	3
B/W Via Vista Dr. and Chicago Ave.	78	80	2
Arlington Avenue			
B/W Alessandro Blvd. and Victoria Ave.	76	79	2
B/W Magnolia Ave. and Streeter Ave.	74	76	2
B/W Monroe St. and Adams St.	75	76	1
B/W SR-91 Freeway and Magnolia Ave.	74	76	2
B/W Tyler St. and Norwood Ave.	74	74	0
B/W Van Buren Blvd. and Rutland Ave.	75	75	0
B/W Victoria Ave. and SR-91 Freeway	75	78	3
Buchanan Street			
B/W Magnolia Ave. and Indiana Ave.	68	71	3
B/W Magnolia Ave. and SR-91 Freeway	72	76	4
California Avenue			
B/W Adams St. and Jefferson St.	73	75	2
B/W Van Buren Blvd. and Jackson St.	73	75	2
Central Avenue			
B/W Chicago Ave. and Canyon Crest Dr.	74	76	2
B/W Glen Haven Ave. and Chicago Ave.	75	75	0
B/W Hillside Ave. and Streeter Ave.	72	74	2
B/W Lochmoor Dr. and Canyon Crest Dr.	74	76	2
B/W Victoria Ave. and SR-91 Freeway	75	77	2
B/W Streeter Ave. and Palm Ave.	71	72	1
B/W Victoria Ave. and Glen Haven Ave.	75	77	2
Chicago Avenue			
B/W Central Ave. and Alessandro Blvd.	75	78	3
B/W Martin Luther King Jr. Blvd. and Central Ave.	74	78	4
B/W Spruce St. and Columbia Ave.	72	74	2
B/W University Ave. and Martin Luther King Jr. Blvd.	74	76	2
Indiana Avenue			
B/W Harrison St. and Van Buren Blvd.	70	72	2
B/W Madison St. and Jefferson St.	72	73	1
B/W Monroe St. and Jackson St.	71	72	1
Iowa Avenue			
B/W Columbia Ave. and Spruce St.	74	78	4
B/W Third St. and Blaine Street/Spruce St.	74	77	3
B/W SR-60 Freeway and Third St./Blaine St.	73	75	1

Table 5.11-I Existing and Future Noise Contour Comparison			
Roadway Segment	CNEL at Property Line		
	Baseline Year 2003	Year 2025	Difference
Jackson Street			
B/W Magnolia Ave. and California Ave.	71	72	1
B/W Magnolia Ave. and Indiana Ave.	71	73	2
Jefferson Street			
B/W Magnolia Ave. and California Ave.	72	72	0
B/W Magnolia Ave. and Indiana Ave.	71	72	1
Jurupa Avenue			
B/W Palm Ave. and Grand Ave.	74	75	1
B/W Streeter Ave. and Fremont St.	73	75	2
La Sierra Avenue			
B/W Cypress Ave. and Arlington Ave.	72	76	4
B/W Magnolia Ave. and Collett Ave.	74	77	3
B/W Magnolia Ave. and SR-91 Freeway	75	76	1
B/W Pierce St. and Gramercy Pl.	74	78	4
B/W Victoria Ave. and Arizona Ave.	74	77	3
Lincoln Avenue			
B/W Adams St. and Jefferson St.	74	76	2
B/W Jackson St. and Monroe St.	75	75	0
Madison Street			
B/W Magnolia Ave. and Arlington Ave.	72	75	3
B/W Magnolia Ave. and Indiana Ave.	74	74	0
Magnolia Avenue			
B/W Monroe St. and Jackson St.	75	76	1
B/W Central Ave. and Jurupa Ave.	75	76	1
B/W La Sierra Ave. and SR-91 Freeway	76	78	2
B/W Tyler St. and Van Buren Blvd.	75	77	2
B/W La Sierra Ave. and Tyler St.	76	77	1
Main Street			
B/W Colombia Ave. and SR-60 Freeway	74	75	1
Market Street			
B/W 1 st St. and SR-60 Freeway	73	75	2
B/W Mission Inn Ave. and 14 th St.	75	75	0
Martin Luther King Jr. Boulevard			
B/W Canyon Crest Dr. and Chicago Ave.	75	78	3
B/W Chicago Ave. and Iowa Ave.	75	77	2
Monroe Street			
B/W Magnolia Ave. and California Ave.	71	72	1
B/W Magnolia Ave. and Indiana Ave.	74	74	0
Pierce Street			
B/W Magnolia Ave. and Indiana Ave.	72	73	1
B/W Magnolia Ave. and Riverwalk Pkwy.	73	74	1
B/W Riverwalk Pkwy. and La Sierra Ave.	72	72	0
Riverwalk Pkwy			
B/W Collett Ave. and Pierce St.	74	74	0

Table 5.11-I Existing and Future Noise Contour Comparison			
Roadway Segment	CNEL at Property Line		
	Baseline Year 2003	Year 2025	Difference
Spruce Street			
B/W Chicago Ave. and Iowa Ave.	72	72	0
B/W Chicago Ave. and Kansas Ave.	67	71	4
B/W Kansas Ave. and Orange Ave.	64	72	8
Trautwein Road			
B/W John F. Kennedy Dr. and Alessandro Blvd.	77	80	3
B/W Orange Terrace Pkwy. and John F. Kennedy Dr.	76	80	4
Tyler Street			
B/W Indiana Ave. and Victoria Ave.	70	71	1
B/W Magnolia Ave. and California Ave.	73	78	5
B/W Magnolia Ave. and Indiana Ave.	75	78	3
B/W Wells Ave. and Cypress Ave.	73	76	3
University Avenue			
B/W Chicago Ave. and Iowa Ave.	74	74	0
B/W Kansas Ave. and Chicago Ave.	75	75	0
B/W Market St. and Lime Ave.	72	72	0
B/W Market St. and Redwood Dr.	70	70	0
Van Buren Boulevard			
B/W Arlington Ave. and Central Ave.	77	79	2
B/W Barton Rd. and Orange Terrace Pkwy.	75	78	3
B/W Central Ave. and Jurupa Ave.	78	79	1
B/W Cypress Ave. and Wells Ave.	75	78	3
B/W Indiana Ave. and Magnolia Ave.	75	77	2
B/W Magnolia Ave. and California Ave.	74	76	2
B/W Mockingbird Canyon Rd. and Washington St.	75	77	2
N/ Jurupa Ave.	78	80	2
B/W Victoria Ave. and Dufferin Blvd.	74	79	5
B/W Victoria Ave. and Indiana Ave.	75	78	3
B/W Wood Rd. and Chicago Ave.	77	79	2
Victoria Avenue			
B/W Adams St. and Jefferson St.	71	70	-1
B/W Central Ave. and Arlington Ave.	74	74	0
B/W Central Ave. and Cridge St.	73	74	1
B/W Harrison and Tyler St.	71	72	1
B/W Madison Ave. and Washington St.	73	71	-2
B/W Jackson St. and Monroe St.	69	69	0
Washington Street			
B/W Bradley St. and Overlook Pkwy.	74	77	3
B/W Overlook Pkwy. and Victoria Ave.	73	75	2
Watkins Drive			
B/W Mount Vernon Ave. and SR-60 Freeway	73	76	3

Source: CBA, 2004. (Appendix G)
 B/W = Between

Noise Code Amendment

The purpose of the City of Riverside Noise Code is to help protect residents and visitors of the City from being impacted by noise created by other residents and/or visitors of the City. The City of Riverside Noise Code (Title 7, Riverside Municipal Code) is proposed to be amended to better reflect State regulations in regard to exterior noise levels for single family residential uses to address the increase in ambient noise levels within the City since the Noise Code was originally adopted, and to facilitate mixed-use and in-fill development as provided in the Land Use Element. The Noise Code amendment will not generate new noise therefore; no increases in ambient noise levels will result from this change. **No impacts to ambient noise levels will result from amending the Noise Code.**

Magnolia Avenue Specific Plan

The MASP will potentially increase population and new development, pursuant to the General Plan. Review of **Table 5.11-I, Existing and Future Noise Contour Comparison**, indicates that Magnolia Avenue is currently experiencing noise levels of 75 dBA CNEL or more; projected ambient noise levels will be higher than the existing by 1 to 2 dBA.

The term “substantial,” as used in this threshold, is not defined in most environmental compliance guidelines. Noise analysis methodology is accurate only to the nearest whole decibel and most people only notice a change in the noise environment when the difference in noise levels are around 3 dB CNEL. An increase or decrease in noise level of at least 5 dBA is required before any noticeable change in community response would be expected. Therefore, a clearly perceptible increase (+5 dB) in noise exposure of sensitive receptors could be considered significant. Therefore, because the MASP is located along Magnolia Avenue where increases in ambient noise are expected to be about 1 to 2 dBA, it will result in a less than substantial permanent increase in ambient noise levels in the MASP vicinity above levels existing without the MASP. **Impacts to ambient noise levels are considered less than significant**

Citywide Design and Sign Guidelines

No Design Guideline standards relate to increases in ambient noise. Implementation would have **no impact**.

Threshold: *Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.*

General Plan

The primary source of temporary or periodic noise within the Planning Area would be construction activity and maintenance work. Construction noise typically involves the loudest common urban noise events associated with building demolition, grading, construction, large diesel engines, truck deliveries and hauling. **Table 5.11-J, Construction Equipment Noise Levels**, shows typical noise levels associated with operation of construction equipment at a

distance of 50 feet. Construction activity, although temporary at any given location, can be substantially disruptive to adjacent uses during the construction period. Future development projects will result in construction noise. Noise from specific future development projects in the Planning Area will be examined on a project-by-project basis, as provided in Implementation Plan Tool N-1.

Table 5.11-J Construction Equipment Noise Levels	
Equipment	Noise Level (dBA) 50 ft from Source
Air Compressor	81
Backhoe	80
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Generator	81
Grader	85
Jack Hammer	88
Loader	85
Paver	89
Pile Driver (Impact)	101
Pile Driver (Sonic)	96
Pneumatic Tool	85
Pump	76
Scraper	89
Truck	88

Source: Federal Transit Authority, 2006.

The policies and tools such as those that enforce and limit noise from construction activities, listed above under General Plan Policies and Implementation Plan Tools, will reduce most project-related impacts below a level of significance. Individual development projects will continue to comply with existing City standards and practices regarding noise/land use compatibility review and the control of stationary noise sources. When a variance is granted, the City will limit conditions determined appropriate to protect the public health, safety and welfare. Variances that are granted will also follow objectives set in the General Plan (Sec.7.40.010).

Construction activities are ongoing occurrences in the Planning Area. Both the General Plan and Municipal Code limit construction activities to specific times and days of the week. Further, even during those specified times, construction activity is subject to the noise standards provided in the Code, except for emergencies or if a variance is obtained. To mitigate for temporary noise when a variance is granted, **MM Noise 4** should be implemented to help reduce impacts to existing sensitive receptors. Existing and future construction noise levels at individual construction sites may not substantially differ, but unexposed areas could experience new sources of construction noise. Considering the short term nature of construction and the provisions of the City’s Noise Ordinance, the temporary and periodic increase in noise levels due

construction which may result from General Plan implementation are considered **less than significant**.

Noise Code Amendment

The Noise Code amendment will bring the Noise Code into consistency with the proposed Noise Element of the General Plan and State regulations. These regulations will be consistent with the General Plan. Implementation of the Noise Code amendment will not temporarily increase noise levels. However, the Noise Code may be applied to situations where temporary or periodic noise becomes a nuisance. Application of the Noise Code would reduce potential impacts to **less than significant**.

Magnolia Avenue Specific Plan

Development under the proposed General Plan takes into account all projected future development with the MASP. Construction related activities are the most common source of groundborne noise that could affect occupants of neighboring uses within the MASP. There are no uses proposed in the MASP, which would be long-term sources of construction noise. Impacts related to construction are temporary and limited as discussed previously related to the General Plan and all General Plan Policies, Implementation Tools and mitigation measures would apply to the MASP; therefore, impacts would be **less than significant**.

Citywide Design and Sign Guidelines

No design Guideline standards relate to temporary increase in ambient noise. Implementation would have **no impact**.

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

General Plan

The Planning Area is located within or near three Airport Land Use Plans: Riverside Municipal Airport, Flabob Airport and March Air Reserve Base/March Inland Port. According to the Noise Contour Maps (see **Figures 5.11-9 and 10**) for the three airports located in the Planning Area, only Riverside Municipal Airport and March Air Reserve Base/March Inland Port will affect the Planning Area. Flabob Airport is adjacent to the Planning Area; however, none of its noise contours affect the project area. The northern portion of the Arlanza neighborhood and the western portion of the Magnolia neighborhood are affected by the Riverside Municipal Airport. Based on the Riverside Airport contour map, noise levels within the Arlanza neighborhood are expected to reach 55 dB CNEL. The Magnolia neighborhood is located within 55, 60 and 65 dB CNEL contours. Within the MARB/MIP contour map, the eastern portion of Orangecrest neighborhood, a small portion of Mission Grove, and the southern half of Sycamore Canyon Springs neighborhood are located within the 55, 60 and 65 dB CNEL contours. Land Use Policy Map (**Figure 3-3** in Section 3.0, Project Description) attempts to restrict intensive new uses

within the airport-influenced areas for Riverside Municipal Airport and MARB/MIP along with consistent zoning regulations. Therefore, the General Plan does not propose placing any sensitive receptors within the noise contours of those airports. Policies N-1.5, CCM-11.7, N-2.1, N-2.2, N-2.5, N-3.2 through 3.4, LU-22.3 through 22.5 and zoning regulation Sections 19.58 and 12.14 include restricting noise sensitive development within areas subject to high noise levels (over 65 dB CNEL) and limiting the intensity and height of development within aircraft hazard zones. These controls are consistent with the Riverside County Airport Land Use Compatibility Plan.

General Plan Policies N-1.5, CCM-11.7, N-2.1, N-2.2, N-2.5, N-3.2 thru 3.4, LU-22.3 thru 22.5, aim to ensure that future residential or sensitive land uses would be restricted from developing within any existing airport influence areas. The General Plan establishes the noise/land use compatibility guidelines set forth in **Table 5.11-D, Noise/Land Use Noise Compatibility Criteria**, for outdoor noise, which includes airport noise. This table provides a land use compatibility matrix based on noise generation and sensitivity. The maximum threshold for residential land use is 65 dBA. Therefore, because the General Plan land uses are sensitive to the documented noise contours for the applicable airports in the Planning Area and future development near the two airports are subject to ALUC conditions, as well as by implementing the General Plan policies and the City's Municipal Code, exposure of people residing or working in an airport land use plan area to excessive noise is considered **less than significant**.

Noise Code Amendment

The Noise Code amendment will bring the Noise Code into consistency with the proposed Noise Element of the General Plan and State regulations. These regulations will be consistent with the General Plan. Implementation of the Noise Code amendment will not expose people residing or working in an airport land use plan area to excessive noise. **No impacts result.**

Magnolia Avenue Specific Plan

Riverside County Airport Land Use Compatibility Plan includes portions of the MASP (see **Figure 5.11-9, Riverside & Flabob Airport Noise Contours**). The eastern portion between Arlington Avenue and Madison Street of the MASP will be affected by airport noise. Based on **Figure 5.11-9**, noise levels within the MASP area are expected to reach 55 dB CNEL. As shown on **Table 5.11-D**, 65 dBA is the maximum threshold for residential land use. Therefore, although the MASP is located within the Riverside County Airport Land Use Compatibility Plan it will not expose people residing or working in an airport land use plan area to excessive noise levels. Therefore, impacts are considered **less than significant**.

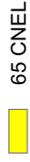
Citywide Design and Sign Guidelines

No design Guideline standards relate to exposing people residing or working in an airport land use plan area to excessive noise levels. Implementation would have **no impact**.



LEGEND

NOISE CONTOURS



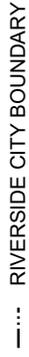
65 CNEL



60 CNEL

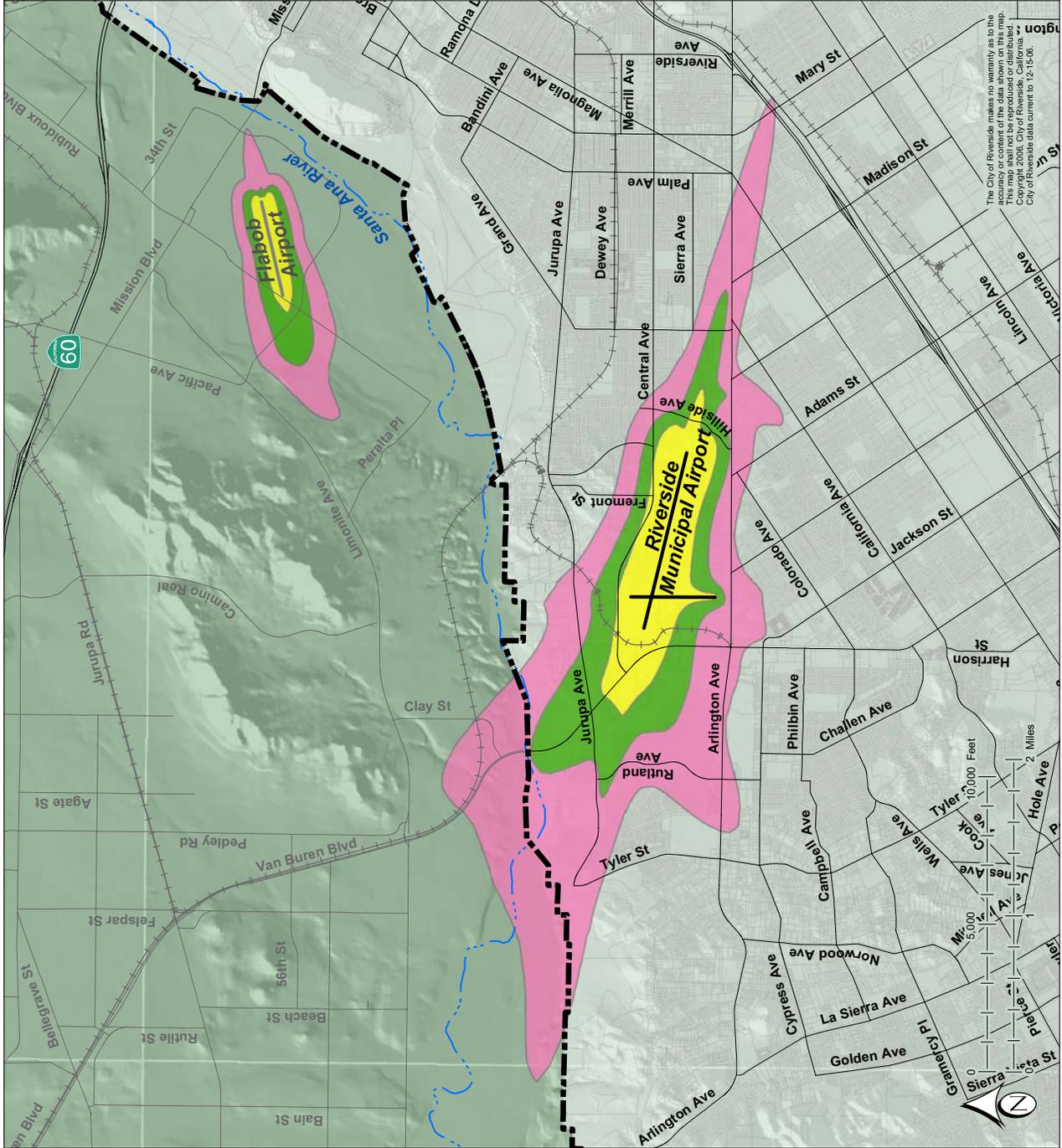


55 CNEL



--- RIVERSIDE CITY BOUNDARY

SOURCE: RIVERSIDE COUNTY AIRPORT LAND USE COMPATIBILITY PLAN, ADOPTED DECEMBER 2004 FOR FLABOB AIRPORT AND MARCH 2005 FOR RIVERSIDE MUNICIPAL AIRPORT.



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**Figure 5.11-9
RIVERSIDE
AND FLABOB
AIRPORT NOISE
CONTOURS**



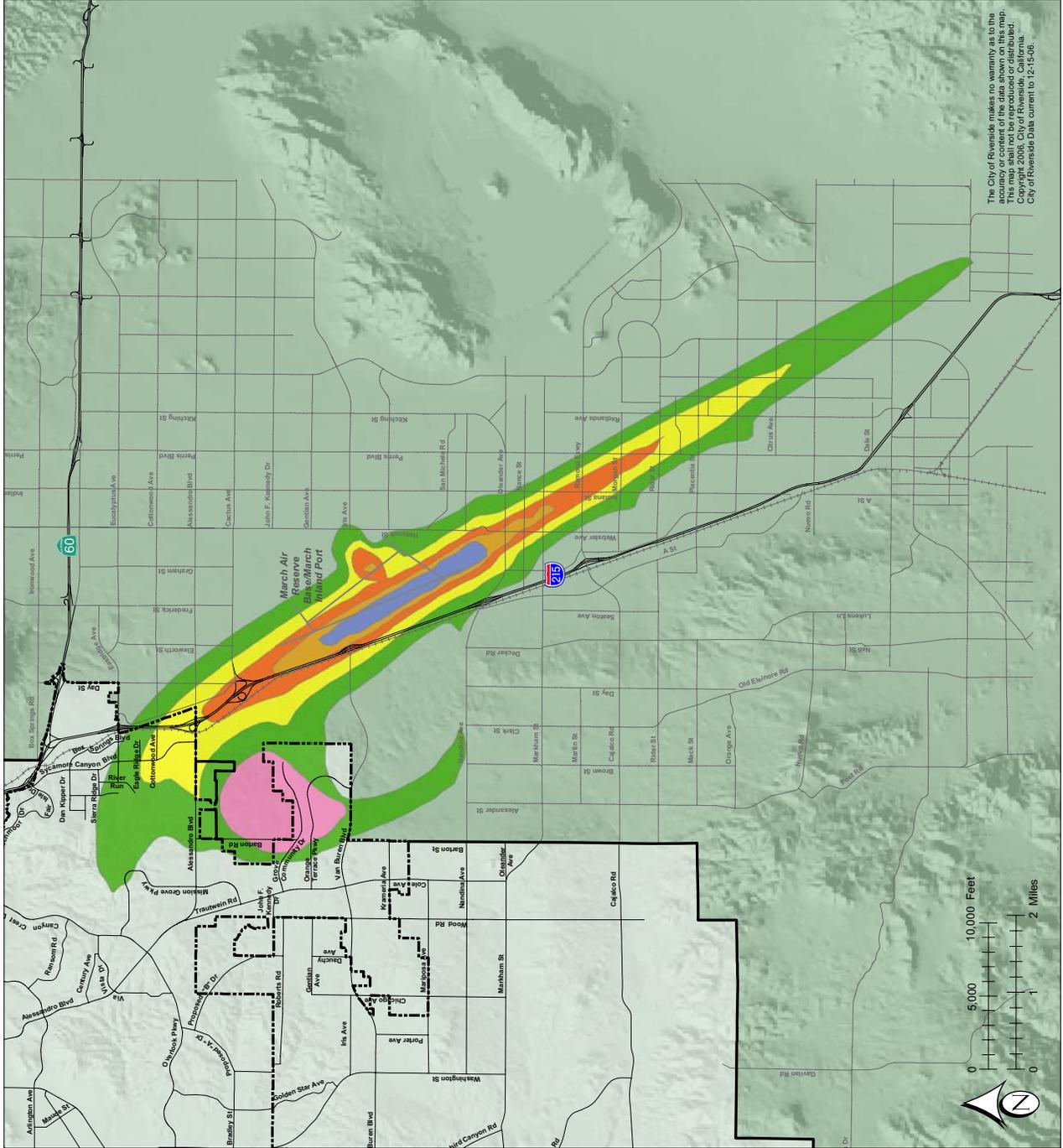
LEGEND

NOISE CONTOURS

- 80 CNEL
- 75 CNEL
- 70 CNEL
- 65 CNEL
- 60 CNEL
- 55 CNEL

- RIVERSIDE CITY BOUNDARY
- RIVERSIDE PROPOSED SPHERE OF INFLUENCE

SOURCE: 1998 AICUZ. THIS GRAPHIC WILL BE UPDATED TO REFLECT THE 2005 AICUZ AS PART OF THE JULUS PROCESS AND SUBSEQUENT ADOPTION.



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**Figure 5.11-10
MARCH ARB
NOISE CONTOURS**

Threshold: *Expose persons residing or working in the project area to excessive noise levels for a project located within the vicinity of a private airstrip.*

There are no private airstrips in the vicinity of the Planning Area. Therefore, implementation of the proposed General Plan, Noise Code Amendment, and Magnolia Avenue Specific Plan will not expose people residing or working in the planning area to excessive noise levels related to a private airstrip and would have **no impact**.

Proposed Mitigation Measures

An environmental impact report is required to describe feasible mitigation measures, which could minimize significant adverse impacts (CEQA Guidelines, Section 15126.4). Mitigation measures were evaluated for their ability to eliminate the potential significant adverse impacts from excessive noise levels or to reduce impacts to below the level of significance.

MM NOISE 1: To minimize impacts resulting from or to proposed projects such that noise levels exceed General Plan Noise Element standards, projects shall be reviewed against the noise compatibility matrix in the Noise Element of the General Plan (Table 5.11-D, herein) and Figures 5.11-6, 5.11-7, 5.11-8, 5.11-9, and 5.11-10 of this EIR to determine suitability of the use in relation to adjacent land uses and noise sources such as roadways, freeways, and airports. To the extent required by the compatibility matrix or one of the figures, a noise study shall be required to evaluate noise levels against standards and to recommend suitable mitigation consistent with Title 24 regulations and the City’s Noise Code. Mitigation may include but not be limited to: walls, berms, interior noise insulation, double paned windows, or other noise mitigation measures as appropriate, in the design of new residential or other noise sensitive land uses.

MM NOISE 2: To reduce impacts from transportation related noise, the City shall identify and enforce routes where vehicles are limited by weight, enforce speed limits, and commit to identifying roads where speed limit reductions can address noise.

MM NOISE 3: To minimize impacts to proposed projects located next to the railroad tracks where noise and vibration impacts may be significant, a noise and vibration study shall be required to evaluate possible impacts and to recommend suitable mitigation consistent with Title 24 regulations and the City’s Noise Code. Mitigation may include but not be limited to: walls, berms, interior noise insulation, double paned windows, or other noise and vibration mitigation measures as appropriate, in the design of new land uses.

MM NOISE 4: To mitigate for temporary noise from construction activities to existing sensitive receptors when a variance is granted related to construction times, additional measures shall be applied by the City, to the extent feasible, to reduce noise impacts to sensitive receptors. Additional measures could include, but are not limited to: locating work at night away from sensitive receptors, limiting the duration of work needing to be completed under the variance, and ensuring construction equipment is properly fitted and maintained with mufflers.

Summary of Environmental Effects After Mitigation Measures Are Implemented

Impacts related to exposure to people residing or working in the project area within the vicinity of a private airstrip to excessive noise levels was found to have **no impact**. There are no private airstrips located within the planning area.

Impacts related to temporary or periodic increase in noise levels and excessive noise levels from airports were found to be **less than significant** because of General Plan policies and the City's Municipal Code which require land use patterns that do not conflict with airport land uses.

Impacts related to temporary or periodic increase in vibration from **trains was found to be significant and unavoidable related to existing uses**. Impacts related to temporary or periodic increase in vibration due to **construction were found to be less than significant** because General Plan policies and the City's Municipal Code will require construction to meet standards, as discussed above.

The project could facilitate development along regional freeways and major arterials where regionally generated traffic is a substantial source of future noise. The degree to which Project features and policies, along with ongoing City standards and practices will achieve acceptable noise levels on a project-by-project basis cannot be measured. Although acceptable interior noise levels can be achieved with full compliance with Title 24 Noise Insulation Standard, compliance with acceptable exterior noise levels is less certain. While Implementation Plan Tool N-1 provides that the City will require acoustical studies and mitigation where necessary in potentially affected locations, imposition of these programmatic features cannot predict precisely the degree to which exterior noise levels will be reduced or the policy choices the City may make with regard to future projects. Impacts related to noise levels that exceed standards established by the General Plan Noise Element or other regulatory agency and permanent increases in ambient noise levels are found to have **potential significant impacts**.

Increases to **ambient noise levels that result from the Project are substantial in some areas and are considered significant and unavoidable**. The increases in population and traffic will result in increases in ambient noise levels that are substantial and cannot be mitigated.

The proposed General Plan would create noise that would affect new and existing sensitive receptors. Most of the noise will come from increased traffic as a result of increased population. Policies in the General Plan would reduce this impact, but most would only benefit new receptors more than the existing receptors. Existing receptors will be exposed to increased noise levels that exceed General Plan noise standards and represent a permanent and substantial increase. The mitigation measures identified above will substantially lessen these impacts; however, the exact degree of noise reduction is not feasibly quantifiable at this time. Therefore, these impacts will remain **significant and unavoidable**.

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