golden city beyond
A SHARED VISION FOR SANTA ANA

Noise Element

Santa Ana General Plan

FINAL, APRIL 2022

A SHARED VISION

Santa Ana is a city that promotes the health & wellness of all residents, with a civic culture that actively embraces the power of diversity. Our city invests in resources that create economic opportunities for the next generation, and it is a community that celebrates our past while working together to create a sustainable future.

OUR CORE VALUES

H HEALTH

The people of Santa Ana value a physical environment that encourages healthy lifestyles, a planning process that ensures that health impacts are considered, and a community that actively pursues policies and practices that improve the health of our residents.

Eq Eq EJ EQUITY

Our residents value taking all necessary steps to ensure equitable outcomes, expanding access to the tools and resources that residents need, and to balance competing interests in an open and democratic manner.

The value of equity that includes "EJ" in the upper corner indicates a policy related to environmental justice.

S SUSTAINABILITY

Santa Ana values land use decisions that benefit future generations, plans for the impacts of climate change, and incorporates sustainable design practices at all levels of the planning process.

C CULTURE

Our community values efforts that celebrate our differences as a source of strength, preserve and build upon existing cultural resources, and nurture a citywide culture of empowered residents.

Ed EDUCATION

We are a city that values the creation of lifelong learners, the importance of opening up educational opportunities to all residents and investing in educational programs that advance our residents' economic wellbeing.

▲ **Santa Ana Freeway [cover photo]**

As southern California grew, so did the traffic and roadways. Now many live along arterials and freeways where thousands of cars and trucks pass by every day, creating noise that permeates the surrounding neighborhoods. The City of Santa Ana is surrounded by four major freeways that carry hundreds of thousands of cars and trucks into and through the city every day. Sound walls help mitigate some of the noise, but nearby homes, schools, and parks must deal with persistent traffic noise. Shown above is a view of the Santa Ana Freeway looking southeast toward the Caltrans District 12 headquarters and Xerox Centre.

NOISE
ELEMENT

RELATED ITEMS UNDER SEPARATE COVER

NOISE EXISTING CONDITIONS REPORT, JULY 2019 (APPENDIX I-A, DEIR)

NOISE MONITORING AND MODELING, VARIOUS DATES (APPENDIX I-B, DEIR)

EIR CHAPTERS: 5.12, NOISE; 5.16, TRANSPORTATION

Music and Art. A band warms up before playing at the Santa Ana Art Walk in March 2017. The Artwalk is like a free carnival across downtown Santa Ana, with outdoor festival areas, art shows and performances, and live music. However, the festivities must come to an end at 10:00 pm to comply with the City's current noise ordinance.

NOISE

The purpose of the Noise Element is to appraise noise levels in the community, prepare noise contours to guide land use decisions, and establish measures that address current and future noise impacts. This element works to ensure that the City limits the exposure of the community to excessive noise levels in noise-sensitive areas and at noise-sensitive times of day.

This Element works in tandem with other elements of the General Plan, such as the Mobility Element, which has policies related to the mitigation of transportation-related noise.

INTRODUCTION

Noise is defined as unwanted sound—anything from a barking dog to the clatter of a jackhammer—and can disrupt the way people live and work. Many sources of noise—such as freeways—also produce vibration, which can adversely affect health and well-being. Because of these known effects of noise and vibration, local, state, and federal government agencies have established noise thresholds to protect public health and safety.

The greatest source of noise throughout Santa Ana is vehicle traffic on the I-5, I-405, SR-22, and SR-55 freeways and the city's large streets. Other major noise sources are Amtrak and Metrolink trains, aircraft departing from and arriving at John Wayne Airport, stationary equipment at commercial and industrial uses, and parks with active sports fields.

Certain land uses are more sensitive to noise and vibration. Residential uses, schools, health care centers, libraries, churches, senior homes, and recreational areas are much more sensitive to noise than commercial and industrial uses. Siting new development of any of these sensitive receptors in the vicinity of substantial traffic or noise-intensive industrial uses is considered a land use conflict.

The California Building Code and the Santa Ana Noise Ordinance are the City's primary tools to regulate activity and land uses to maintain a healthy noise environment. John Wayne Airport is regulated by the noise requirements of the Federal Aviation Administration and noise standards under the California Code of Regulations.

▲ **Industrial uses near residential neighborhoods**

Some neighborhoods in Santa Ana must contend with the impacts of living nearby industrial districts, including noise from the daily operations of uses such as trash-sorting facilities, auto service and salvage businesses, and metal-processing facilities.

COMMUNITY CONSIDERATIONS

Through the community engagement process for this General Plan, participants identified numerous noise-related considerations and values that they believe should form the basis of and be addressed by this element. Specifically, participants highlighted the following topics, areas of concern, and community strengths:

- **Traffic noise**
- **Noise from overcrowded residential structures**
- **Noise generated by industrial facilities**
- **Noise generated by commercial businesses**

▲ **Santa Ana Regional Transportation Center**

The City's primary transit center generates noise through the arrivals and departures of Amtrak (Pacific Surfliner shown above) and Metrolink trains, as well as Greyhound and OCTA buses.

▲ **Community Input**

Residents expressed a desire to maintain quiet neighborhoods and reduce noise related to traffic and excessively loud businesses during all phases of the General Plan preparation, including at events such as the 2016 community workshop (pictured above) and focused input such as the 2017 General Plan Advisory Group meeting.

POLICY FRAMEWORK

GOAL N-1: Land Use Compatibility

Ensure that existing and future land uses are compatible with current and projected local and regional noise conditions.

POLICY N-1.1
NOISE STANDARDS

Utilize established Citywide Noise Standards and guidelines to inform land use decisions and guide noise management strategies.

Eq Ed

POLICY N-1.2
SOUND DESIGN

Encourage functional and attractive designs to mitigate excessive noise levels.

H Ed

POLICY N-1.3
REGIONAL NOISE IMPACTS

Collaborate with local and regional transit agencies and other jurisdictions to minimize regional traffic noise and other sources of noise in the city.

H Eq

POLICY N-1.4
SENSITIVE USES

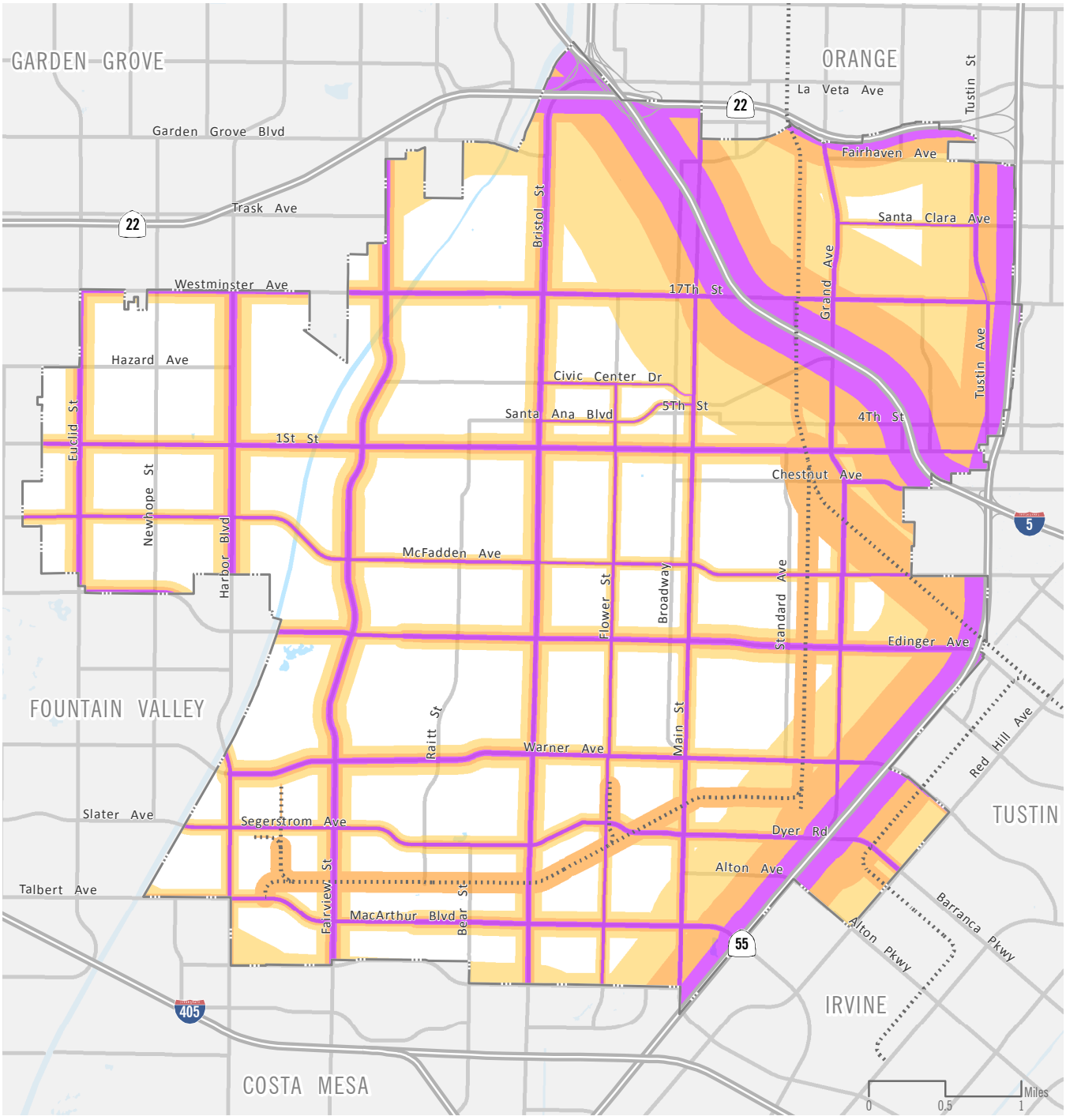
Protect noise sensitive land uses from excessive, unsafe, or otherwise disruptive noise levels.

H Eq

▲ **Vibrant Restaurants, Bars, and Dance Clubs**

The city has many lively places to eat, drink, dance, and listen to live music. Some parts of the city, like Downtown, are more compatible with businesses that stay open late and host live music, while other areas prefer to remain quieter.

ABOUT THE MAP. This map shows the current exterior levels of noise created by cars, trucks, or trains traveling along roadways and rail lines in the city. The City's noise and land use compatibility standards (see Table N-1) consider exterior levels above 65 decibels (dBA CNEL) to be generally incompatible for residential and other noise-sensitive land uses.



Source: PlaceWorks 2020 Date Published: 9/20/2020

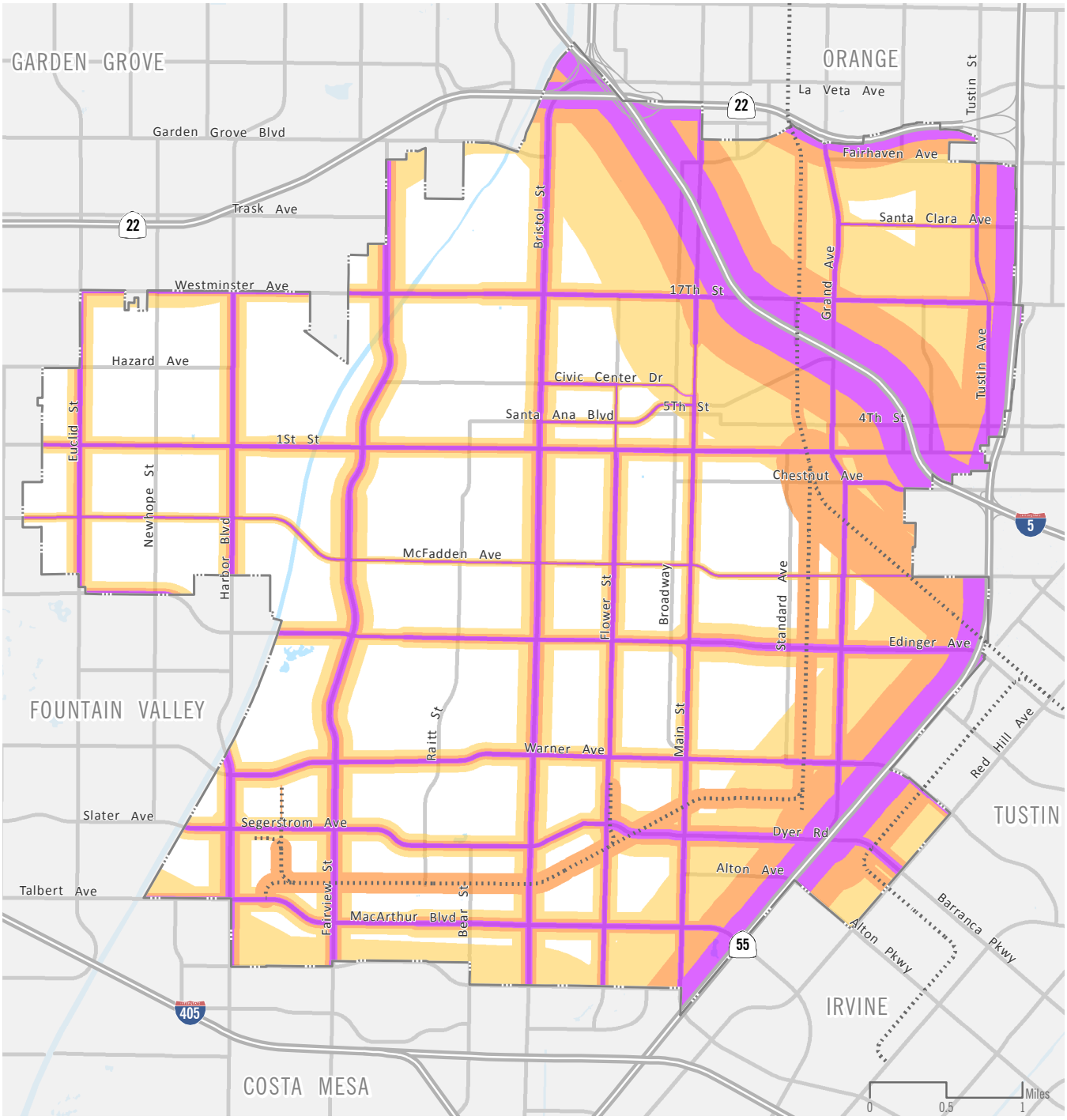
Existing Noise Contours

- 70+ dBA CNEL
- 65 dBA CNEL
- 60 dBA CNEL
- Railway

Community Noise Equivalent Level (CNEL): The energy-average of the sound levels during a 24-hour period, with 5 decibels (dB) added to the levels from 7:00 pm to 10:00 pm and 10 dB added from 10:00 pm to 7:00 am. The decibels are measured in terms of relatives loudness as perceived by the human ear, referred to as A-weighted decibels (dBA).

FIGURE N-1
EXISTING NOISE CONTOURS

ABOUT THE MAP. This map shows the projected exterior levels of noise (based on buildout of the land use plan), created by cars, trucks, or trains traveling along roadways and rail lines in the city. The City's noise and land use compatibility standards (see Table N-1) consider exterior levels above 65 decibels (dBA CNEL) to be generally incompatible for residential and other noise-sensitive land uses.



Source: PlaceWorks 2020 Date Published: 9/20/2020

Future Noise Contours

- 70+ dBA CNEL
- 65 dBA CNEL
- 60 dBA CNEL
- Railway

Community Noise Equivalent Level (CNEL): The energy-average of the sound levels during a 24-hour period, with 5 decibels (dB) added to the levels from 7:00 pm to 10:00 pm and 10 dB added from 10:00 pm to 7:00 am. The decibels are measured in terms of relatives loudness as perceived by the human ear, referred to as A-weighted decibels (dBA).

FIGURE N-2
FUTURE NOISE CONTOURS

GOAL N-2: Noise Generators

Reduce the impact of known sources of noise and vibration.

▲ **Fixing the Sidewalk**

The sounds generated by construction activity, such as heavy equipment and power tools, are often generated in short bursts over long periods of time. The City's noise ordinance restricts construction, repair, remodeling, and grading activities to ensure they cannot take place between 8 pm and 7 am on weekdays, including Saturday, or any time on Sunday or a federal holiday.

POLICY N-2.1
TRANSPORTATION RELATED NOISE

Reduce noise generated from traffic, railroads, transit, and airports to the extent feasible.

H Eq

POLICY N-2.2
STATIONARY RELATED NOISE

Minimize noise impacts from commercial and industrial facilities adjacent to residential uses or zones where residential uses are permitted.

H Eq

POLICY N-2.3
TEMPORARY AND/OR NUISANCE NOISE

Minimize the effects of intermittent, short-term, or other nuisance noise sources.

H Eq Ed

GOAL N-3: Airport and Land Use Environs

Protect sensitive land uses from airport related noise impacts.

POLICY N-3.1
RESIDENTIAL DEVELOPMENT

Residential development within the John Wayne Airport (JWA) 65 dB(A) CNEL Noise Contour or greater is not supported.

Eq

POLICY N-3.2
FLIGHT PATHS

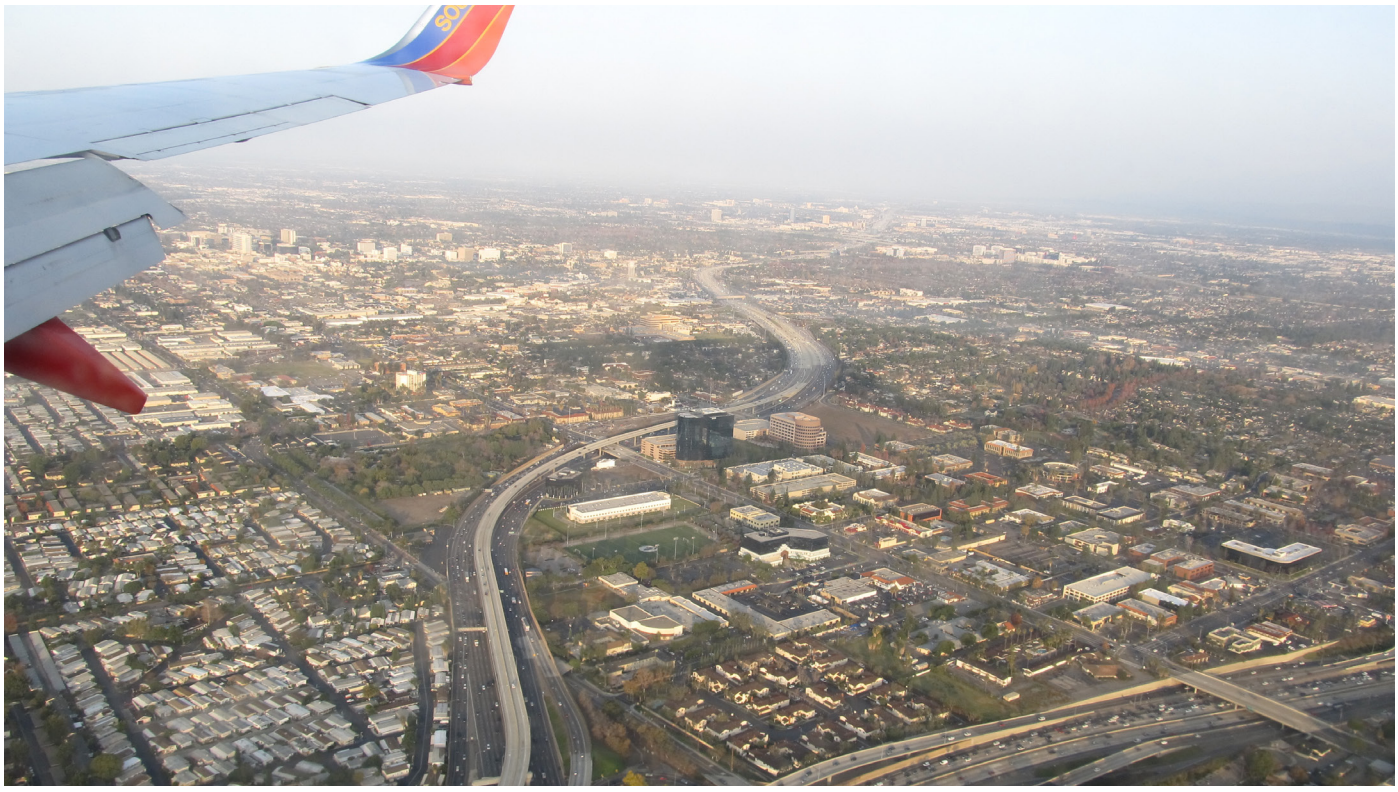
Advocate that future flight path selection be directed away from existing noise sensitive land uses.

H Eq

POLICY N-3.3
RESIDENTIAL MITIGATION

Require all residential land uses in 60 dB(A) CNEL or 65 dB(A) CNEL Noise Contours to be sufficiently mitigated so as not to exceed an interior standard of 45 dB(A) CNEL.

H Eq Ed

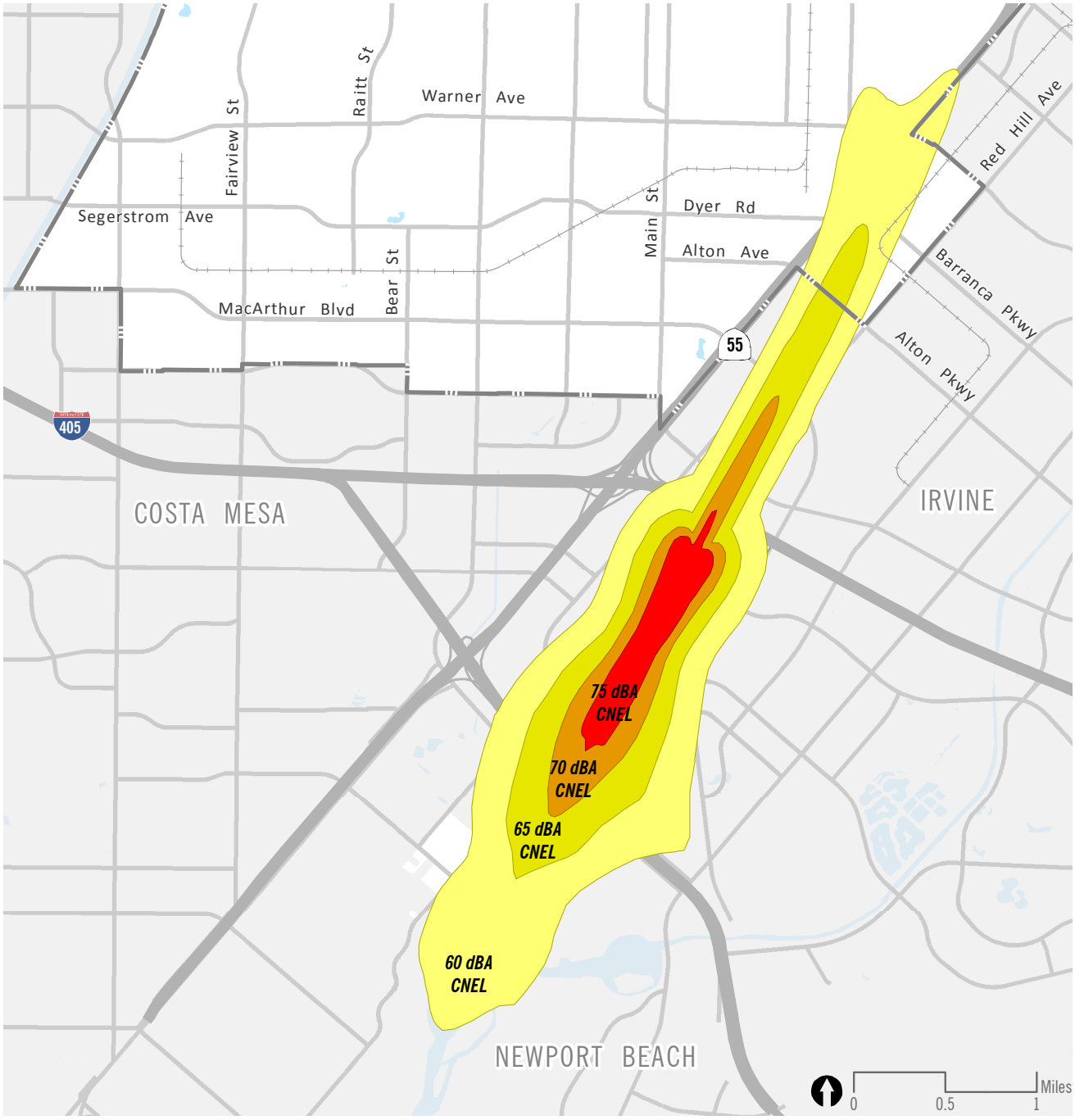


▲ **Approaching John Wayne Airport**

The City advocates for flight paths to avoid residences and other sensitive land uses. Shown above is a plane flying over the Metro East Mixed-Use Overlay Zone, which permits a variety of residential, office, institutional, and commercial land uses.

Photo by Ken Lund, CC BY-SA 2.0

ABOUT THE MAP. This map shows the exterior levels of noise created by aircraft operations at John Wayne Airport. California Building Code (Title 21) standards states that the basis for the acceptable level of aircraft noise for persons living in the vicinity of airports is 65 decibels (dBA CNEL).



Santa Ana Airport 2012 Annual Noise Contours

- 60 dBA CNEL
- 65 dBA CNEL
- 70 dBA CNEL
- 75 dBA CNEL

Source: Recreated from Orange County Airport Land Use Commission, Airport Environs Land Use Plan for Santa Ana Airport, 2008.

Date Published: 9/20/2020

Community Noise Equivalent Level (CNEL): The energy-average of the sound levels during a 24-hour period, with 5 decibels (dB) added to the levels from 7:00 pm to 10:00 pm and 10 dB added from 10:00 pm to 7:00 am. The decibels are measured in terms of relatives loudness as perceived by the human ear, referred to as A-weighted decibels (dBA).

FIGURE N-3
AIRPORT NOISE CONTOURS

NOISE STANDARDS

The City's primary focus is to minimize noise problems in areas sensitive to noise because the majority of land in Santa Ana is fully established. The City emphasizes mitigation measures to deal with existing noise problems, as well as the prevention of new noise problems. Noise levels are managed through proper design and location of mobility and noise systems in relationship to noise-sensitive land uses, and establishment of appropriate noise emission or insulation standards for the various land uses.

The City adopts the standards and guidelines for noise levels for land uses as displayed in Table N-1. Residential uses should be protected with sound insulation over and above what is provided by normal building construction when they are constructed in areas with noise levles higher than 60 dB CNEL (community noise equivalent level).

TABLE N-1. INTERIOR AND EXTERIOR NOISE STANDARDS

Categories	Land Use Categories	Interior[1]	Exterior[2]
Residential	Single-family, duplex, multi-family	45 dB CNEL[3]	65 dB CNEL
Institutional	Hospital, school classroom/ playground	45 dB CNEL	65 dB CNEL
	Religious facility, library	45 dB CNEL	--
Open Space	Parks	--	65 dB CNEL

Notes:

1. Interior areas, to include but not limited to bedrooms, bathrooms, kitchens, living rooms, dining rooms, private offices, and conference rooms.

2. Exterior areas shall mean: private yards of single family homes, park picnic areas, school playgrounds, common areas. Private open space, such as atriums on balconies, shall be excluded from exterior noise requirements provided sufficient common area is included within the project.

3. Interior noise level requirements assume a closed-window condition. Mechanical ventilation system or other means of natural ventilation shall be provided per Chapter 12 of the Uniform Building Code, as necessary.

RELATED GENERAL PLAN POLICIES

Each policy in the City of Santa Ana General Plan is listed under the most related goal and element. Some policies, however, also reinforce other goals in different elements.

To provide a more complete picture of all of the policies that support the goals of this element, Table N-2 lists each Noise Element goal in the far left column and, in columns to the right, identifies related policy numbers from other elements.

Goal N-1, for example, is supported not only by the policies listed in this element (N-1.1 through N-3.3), but also by Policies LU-1.1, 3.8, and 4.3 in the Land Use Element.

TABLE N-2. RELATED GENERAL PLAN POLICIES

	Volume 1 Services & Infrastructure				Volume 2 Natural Environment				Volume 3 Built Environment			
Noise Goals	**CM**	**M**	**EP**	**PS**	**CN**	**OS**	**N**	**S**	**LU**	**HE**	**HP**	**UD**
N-1: Land Use Compatibility Ensure that existing and future land uses are compatible with current and projected local and regional noise conditions.	-	-	-	-	-	-	Current Element	-	LU-1.1 LU-3.8 LU-4.3	-	-	-
N-2: Noise Generators Reduce the impact of known sources of noise and vibration.	-	M-1.8 M-4.8 M-5.2	-	-	-	-	Current Element	-	-	-	-	-
N-3: Airport and Land Use Environs Protect sensitive land uses from airport related noise impacts.	-	-	-	-	-	-	Current Element	-	LU-1.1 LU-3.8	-	-	-

Notes:

CM: Community Element
M: Mobility Element
EP: Economic Prosperity Element
PS: Public Services Element
CN: Conservation Element
OS: Open Space Element
N: Noise Element
S: Safety Element
LU: Land Use Element
HE: Housing Element
HP: Historic Preservation Element
UD: Urban Design Element

IMPLEMENTATION

An implementation plan is a coordinated series of actions the City desires to take in the future that are intended to advance, over the long term, the City's Shared Vision, Core Values, and the General Plan goals and policies. An implementation plan is thus a follow-up measure for this element. Taken as a whole, these programs represent the City's best thinking today on what actions should be taken to address the considerations and concerns of the community and make sure that the Plan's aspirations are achieved.

Implementation is in large part contingent upon adequate funding. Many of these actions can be pursued through initiatives already underway. Other programs will require additional resources. As such, the exact mix and timing of programs the City may pursue will in part be opportunity driven, dependent on the availability of funding, staffing, and other necessary resources. The Time Frame in the Implementation Table below is the target for completion of the Action.

This element may be implemented by amendments to existing plans, ordinances, development standards, and design guidelines; capital investments/projects; and interagency/interjurisdictional coordination. The following table identifies the implementation action, the responsible City agency, and targeted timeline for accomplishment.

TABLE N-3. NOISE ELEMENT IMPLEMENTATION

Ref #	Implementation Action	Agency / Time Frame
Goal N-1: Land Use Compatibility Ensure that existing and future land uses are compatible with current and projected local and regional noise conditions.		
1.1	**City equipment.** As feasible and practical, new equipment purchased by the City will meet noise performance standards consistent with the best available noise reduction technology.	PWA/Finance Ongoing
1.2	**OC Streetcar.** Monitor implementation of mitigation measures outlined in the Final Supplemental Environmental Impact Report for the OC Streetcar.	PWA Ongoing
1.3	**Noise evaluation.** Continue to evaluate the noise impacts of new projects during the development review process; consider requirements for noise analysis conducted by an acoustical specialist for projects involving land uses where operations are likely to impact adjacent noise-sensitive land uses.	PBA 2022-2024
1.4	**Agency coordination.** Continue to coordinate with California Department of Transportation and OCTA to evaluate the need for sound barriers or other mitigation strategies along segments of the freeways and transit travel ways that impact existing noise-sensitive land uses.	PWA Ongoing
1.5	**Noise ordinance.** Update the City's noise ordinance to provide more detail about acceptable noise standards for land uses.	PBA/PD 2022-2027
1.6	**Noise mitigation in impacted areas.** Evaluate options to expand noise mitigation in areas that are planned for growth but where ambient noise levels already exceed noise standards.	PBA 2022
1.7	**Disclosure statements.** As part of any approvals of noise-sensitive projects where reduction of exterior noise to the maximum levels specified in the City's General Plan or noise ordinance is not reasonably feasible, require the developer to issue disclosure statements—to be identified on all real estate transfers associated with the affected property—that identifies regular exposure to noise.	PBA 2022
1.8	**Site mobility.** Develop standards to ensure that on-site mobility does not generate excessive noise.	PBA 2022
1.9	**Adjacent jurisdictions.** Continue to monitor development projects in adjacent jurisdictions and comment on projects with the potential for noise impacts in Santa Ana.	PBA Ongoing

TABLE N-3. NOISE ELEMENT IMPLEMENTATION

Ref #	Implementation Action	Agency / Time Frame
GOAL N-2: Noise Generators **Reduce the impact of known sources of noise and vibration.**		
2.1	**Alternative paving.** Evaluate the use of alternative paving materials that can reduce traffic noise, as feasible, depending on roadway conditions and cost-efficiency.	PWA 2024
2.2	**Freeways.** Continue cooperation with Caltrans in the planning of noise attenuation along freeways and assist with outreach efforts to notify residents of major projects that may impact noise levels and aesthetics.	PWA Ongoing
2.3	**Roadway designations.** Periodically review major roadways and designated truck routes to reduce truck traffic through residential neighborhoods and near schools.	PWA Ongoing
2.4	**Rail coordination.** Continue to work with rail owners and operators to manage existing quiet zones, monitor safety adjacent to railroad tracks, and consider feasible alternatives that reduce noise.	PWA Ongoing
2.5	**Site design and technology.** Require that the parking structures, terminals, and loading docks of noise-generating land uses be designed to minimize the potential noise impacts of vehicles on-site and on adjacent land uses. Encourage and/or require feasible technological options to reduce noise to acceptable levels.	PBA Ongoing
2.6	**Mitigate existing impacts.** Identify existing business operations that produce exterior noise above the maximum levels specified in the City's General Plan or noise ordinance for adjacent land uses. Reach out to those businesses to provide educational resources about best practices for noise prevention and mitigation. Assist businesses to implement mitigation strategies through permit assistance, expedited permitting, and other incentives. If the noise impact cannot be mitigated, provide site selection assistance to help businesses relocate to other areas of the city.	PBA/CDA 2023
2.7	**Best practices.** Conduct a study of best practices for the prevention and mitigation of noise impacts on sensitive land uses caused by existing or new business operations.	PBA/PD 2022-2024
2.8	**Nuisance noise.** Review all permit applications, including special use permits, for potential noise impacts. Utilize existing noise ordinances and antinuisance statutes to reduce the occurrence of nuisance noise violations.	PBA Ongoing
GOAL N-3: Airport and Land Use Environs **Protect sensitive land uses from airport related noise impacts.**		
3.1	**Aircraft altitude standards.** Continue working with the Federal Aviation Administration to determine appropriate altitude standards for aircraft flying over congested areas, taking into account public health and safety.	PBA Ongoing
3.2	**Helicopter noise.** Continue cooperation with the Fire Department and Metropolitan Water District to minimize noise conflicts associated with helicopter activity.	PBA Ongoing
3.3	**Local coordination.** Work with the Airport Land Use Commission to ensure that local noise concerns are proactively addressed.	PBA Ongoing

Notes:
CDA - Community Development Agency
PBA - Planning and Building Agency
PD - Police Department
CMO - City Manager's Office
PWA - Public Works Agency
HR- Human Resources Department
PRCSA - Parks, Recreation and Community Services Agency

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