

NOISE

07



[this page intentionally blank]

NOISE

Introduction

The Noise Element is intended to ensure compliance with state requirements and support a comprehensive, long-range approach to maintaining acceptable noise levels throughout Laguna Niguel.

As required by Government Code Section 65302(f), this Element identifies and assesses community noise issues by analyzing and, where practicable, quantifying current and projected noise levels from major noise sources, such as roadways, railroads, airports, and industrial facilities, using community noise equivalent level (CNEL) or day-night average sound level (Ldn) noise contours. This data supports informed land use planning decisions to minimize noise exposure on sensitive receptors and guides the implementation of measures to address potential existing and future noise concerns.

Noise is typically characterized as intrusive, irritating, and unwanted sound disruptive to daily life. Noise varies widely in its nature and impact, ranging from individual occurrences like a barking dog, to the intermittent disturbances of passing trains,

to the fairly constant noise generated by roadway traffic. Because noise can affect nearly every aspect of daily life, acceptable thresholds are defined based on land use type and sensitivity. Land uses such as residential neighborhoods, schools, libraries, places of worship, recreation areas, managed care facilities, and hospitals are particularly sensitive to elevated noise levels.

This Noise Element works in coordination with other General Plan Elements, such as Land Use, Housing, Resource Management, and Mobility, and includes specific goals and policies designed to minimize noise impacts on sensitive receptors and effectively manage noise-generating activities. These goals and policies are intended to protect existing and future land uses from excessive noise, thereby preserving the quality of life throughout Laguna Niguel.

Acoustic Terminology

Stationary noise means a source of sound or combination of sources of sound that are included and normally operated within the property lines of a facility. Common examples include heating, ventilation, and air conditioning (HVAC) systems, loading docks, and machinery.

A-weighted decibels (dBA) are an expression of the relative loudness of sounds in air as perceived by the human ear.

Average noise exposure over a 24-hour period is presented as a day-night average sound level, or Ldn.

Community Noise Equivalent Level (CNEL) measures the average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of ten decibels to sound levels in the night between 10:00 p.m. and 7:00 a.m.

Sensitive receptors are noise sensitive locations and uses where human activity may be adversely affected by nuisance noise from nearby stationary, non-transportation, and transportation noise sources. Examples include residential areas, schools, libraries, places of public assembly, and healthcare facilities.

Organization of Element

The Noise Element addresses each of the topics below as they relate to Laguna Niguel. The goals and policies of this Element are organized around the following topics:

- Land Use Compatibility
- Noise Management Collaboration



LAND USE COMPATIBILITY

Goal N-1

A healthy and livable community by effectively managing noise through strategic planning and regulatory compliance to safeguard against harmful or disruptive noise impacts.

The City recognizes that elevated stationary and mobile noise levels can directly affect the community's health and well-being. Thoughtful consideration of the noise contours included in Figures N-1 and N-2, along with the relationship between land uses, allows for early identification of potential conflicts during planning and design, which can significantly reduce or prevent adverse noise impacts.

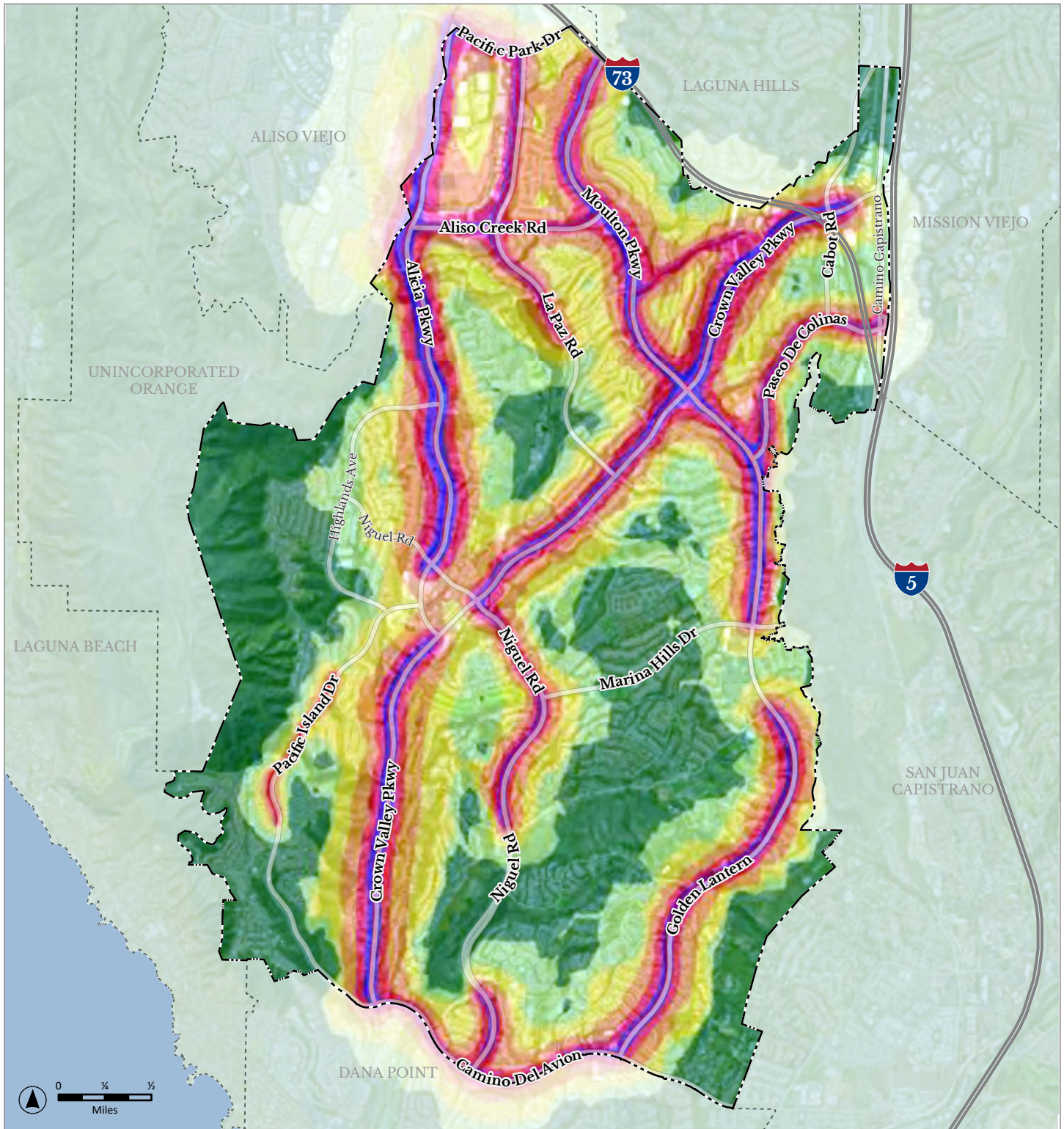
Both federal and state regulations establish standards related to noise and vibration. By complying with these regulations, applying strategic land use planning, incorporating sound construction practices, and implementing the following policies, the City can minimize exposure to excessive noise, supporting a quieter and healthier environment.



N-1 Policies

- N-1.1 Land Use and Infrastructure Planning.** Use City established noise standards and guidelines to evaluate development and infrastructure projects and consider project design features, conditions of approval, or mitigation measures to maintain acceptable noise levels for existing and future land uses.
- N-1.2 Land Use Compatibility.** Refer to the noise and land use compatibility matrix (Table N-1), prepared by the Office of Land Use and Climate Innovation as a guide for assessing land use compatibility. Use this matrix to inform appropriate project design features, conditions of approval, or mitigation measures to maintain acceptable noise levels for future land uses.
- N-1.3 Noise Contour Map (Figures N-1 and N-2).** Use the Existing and Future Noise Contour Maps when evaluating development and infrastructure projects. The Noise Contour Maps serve as valuable tools for assessing appropriate project design features, conditions of approval, or mitigation measures to maintain acceptable noise levels for existing and future land uses.
- N-1.4 Roadway Noise Abatement.** Consider noise impacts on sensitive land uses in the design and maintenance of the roadway network. Where feasible, roadway design should minimize noise impacts on adjacent areas
- N-1.5 Noise Compatibility in Mixed-Use and Multi-Family Developments.** Require mixed-use and multi-family residential developments to demonstrate noise compatibility between different adjacent or on-site uses.
- N-1.6 Rail Vibration and Noise Assessments.** Require development projects located within 100 feet of rail lines (measured from the property line) to demonstrate, prior to approval of sensitive uses, that rail-related groundborne vibration and noise impacts have been adequately addressed.
- N-1.7 City Noise Ordinance and Manual.** Ensure the City's Noise Ordinance (Division 6 of Title 6 of the Laguna Niguel Municipal Code) and environmental review procedures (City California Environmental Quality Act Manual) are consistent with the General Plan and contemporary best practices.
- N-1.8 Commercial Truck Traffic Noise.** To the extent practically feasible, limit "through commercial truck traffic" to designated truck routes to minimize noise impacts to residential neighborhoods and other noise-sensitive uses (See Mobility Element).

N-1 Existing Noise Contours



Data sources: MD Acoustics; City of Laguna Niguel; Orange County GIS.

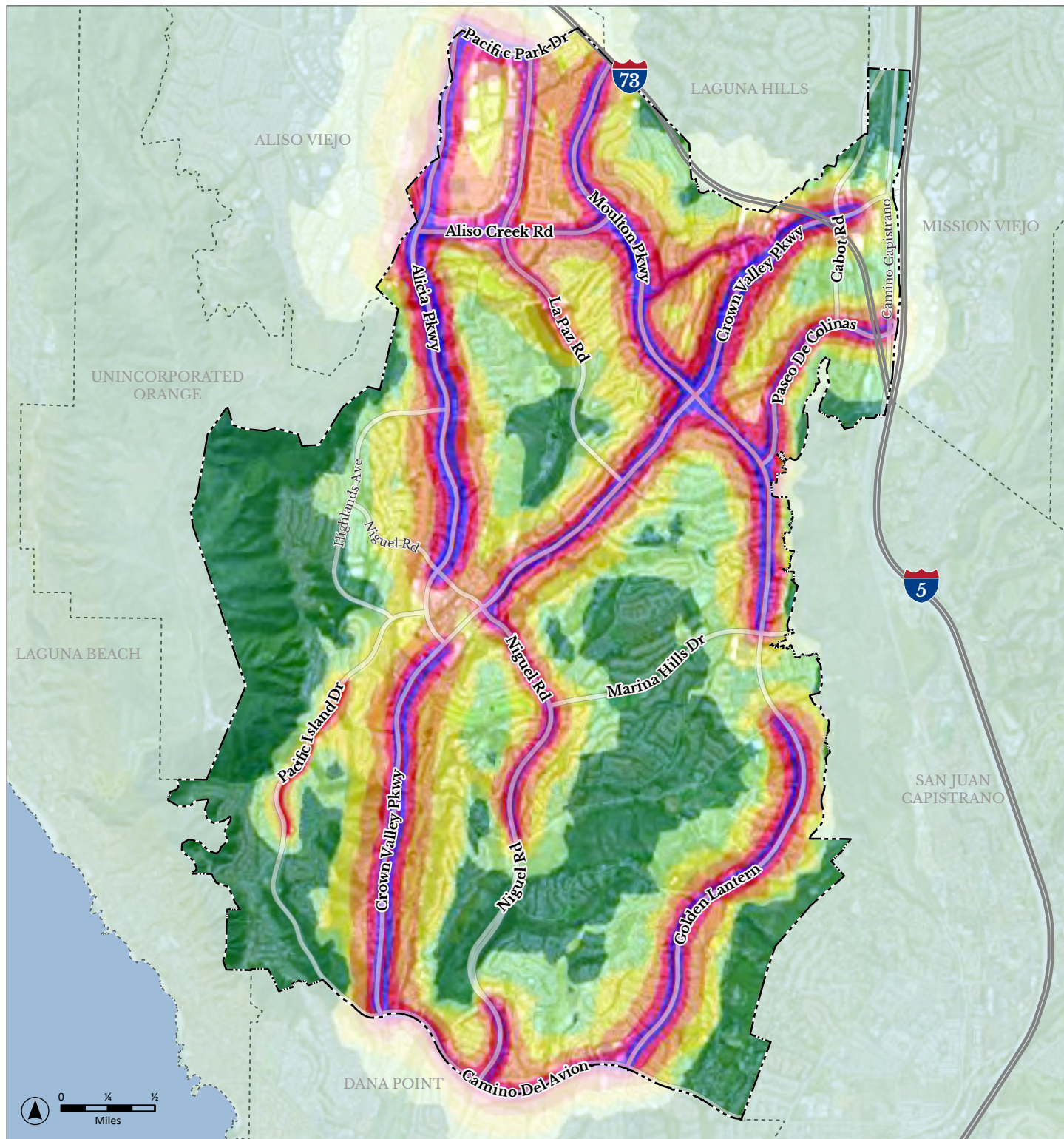
Prepared for the City of Laguna Niguel by De Novo Planning Group
May 21, 2025

- Laguna Niguel City Boundary
- Other Jurisdictions

Levels in dB(A)

	<45		50-55		60-65
	45-50		55-60		>=65

N-2 Future Noise Contours



Data sources: MD Acoustics; City of Laguna Niguel; Orange County GIS.

Prepared for the City of Laguna Niguel by De Novo Planning Group
May 21, 2025

- Laguna Niguel City Boundary
- Other Jurisdictions

Levels in dB(A)

<45	50-55	60-65
45-50	55-60	>=65

NOISE MANAGEMENT COLLABORATION

Goal N-2

A quieter and healthier environment for Laguna Niguel through collaborative partnerships and effective strategies to address noise impacts from mobile sources.

Through collaboration with regional partners, the City strives to minimize noise impacts from mobile sources along transportation corridors to safeguard community health and enhance quality of life. The City also actively monitors programs and legislation that further advance noise reduction. Complementing these efforts, the City encourages multimodal transportation alternatives to reduce roadway traffic and associated noise, contributing to a quieter and healthier community.

N-2 Policies


- N-2.1 Freeway and Toll Road Noise Abatement.** Collaborate with the California Department of Transportation and the Transportation Corridor Agency to incorporate effective and feasible noise abatement measures into the design and construction of Interstate 5 and SR-73 Toll Road projects that could affect Laguna Niguel.
- N-2.2 Regional Noise Coordination.** Coordinate with neighboring cities and other relevant public and transportation agencies to address and minimize potential noise conflicts between land uses within and along Laguna Niguel's boundaries.
- N-2.3 Rail Noise Management.** Collaborate with Amtrak and Metrolink, the California Public Utilities Commission, and other relevant agencies to minimize community noise and vibration impacts along the rail corridor through Laguna Niguel.
- N-2.4 Airplane Noise Management.** Participate in efforts led by John Wayne Airport and other relevant air transportation agencies to implement flight paths and operational strategies to minimize noise impacts on residential neighborhoods and other noise-sensitive areas, in compliance with applicable regulatory frameworks.
- N-2.5 Mobile Noise Enforcement.** Coordinate with Orange County Sheriff's Department and other relevant agencies to enforce noise standards in the state motor vehicle code and other state and federal regulations for mobile noise sources, including vehicle exhaust systems, speed limits, and other regulations addressing vehicle noise.
- N-2.6 Legislative Monitoring.** Monitor federal and state legislation and programs aimed at reducing noise impacts that may have implications in Laguna Niguel.
-  **N-2.7 Promotion of Multimodal Transportation.** Encourage alternatives to single-occupancy vehicle travel, such as walking, bicycling, public transit, to help reduce the number of vehicles on the roadways and corresponding roadway noise.

Table N-1: Land Use Compatibility for Community Noise Exposure (dBA, CNEL)

Land Use Category	Community Noise Exposure (Ldn or CNEL, dB)					
	55	60	65	70	75	80
Residential – Low Density Single Family, Duplex, Mobile Home						
Residential – Multi-Family						
Hotels, Motels						
Schools, Libraries, Churches, Hospitals, Personal Care						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Neighborhood Parks and Playgrounds						
Office Buildings, Commercial, Professional, Medical Office, Food and Beverage, Service						
Industrial, Manufacturing, Utilities, Agriculture						

NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are 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 the noise reduction requirements is made and needed noise insulation features included in the design.

NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE

New construction or development should generally not be undertaken.

Note: Where a proposed use is not specifically listed, the use shall comply with the standards for the most similar use as determined by the City.