



City of Dublin
General Plan

Chapter 9

ENVIRONMENTAL RESOURCES MANAGEMENT: NOISE ELEMENT

9.1 INTRODUCTION

Government Code sec. 65302(f) outlines the statutory requirements for Noise Elements. Recognizing the State Office of Noise Control (ONC) guidelines, Noise Elements must quantify current and projected noise levels for local noise sources. Among the noise sources to be evaluated are highways and freeways, arterials and major streets, railroads and rapid transit systems, airports and heliports, industrial plants, and other ground stationary sources identified by local agencies as contributing to the community noise environment.

Traffic noise is the major source of noise in Dublin's three Planning Areas. Therefore, the focus of this Noise Element is the effect of traffic noise on locating categories of land use and developing projects within those categories. Information supporting the adopted noise policies is located in the corresponding Noise Element section of the Technical Supplement. The City's Planning Areas contain no railroads, airports, heliports or industrial plants. However, the Parks Reserve Forces Training Area (Parks RFTA) does contain a heliport and is located between Dublin's Primary and Eastern Extended Planning Areas. Noise impacts from the Parks RFTA were addressed in the Army's 2005 Environmental Noise Management Plan (ENMP). Additionally, the southern portions of the Eastern Extended Planning Area east of Tassajara Road fall within the Livermore Municipal Airports Airport Influence Area (AIA). Noise impacts from the Livermore Municipal Airport were addressed in Alameda County's 2012 Airport Land Use Compatibility Plan (ALUCP). Development within the AIA must be consistent with the ALUCP.

Traffic is the primary source of continuous noise in Dublin. Noise exposure contours have been plotted for 2011 (based on current traffic data) and projected to 2035 based on anticipated traffic volume increases (see Figures 9-1 and 9-2). The Community Noise Equivalent Level (CNEL) describes 24-hour average noise levels measured in decibels (dB) taking into account the increased sensitivity of people to noise during evening and nighttime hours. Sound levels between 7:00 p.m. and 10:00 p.m. are penalized 5 dB and those between 10:00 p.m. and 7:00 a.m. are penalized 10 dB. The dB scale is logarithmic; a 3 dB difference normally is discernable and a 10 dB increase is subjectively heard as a doubling in loudness.

The Land Use Compatibility Table (Table 9.1) provides the basis for decisions on the location of land uses in relation to noise sources, and for determining noise mitigation needs. Noise impacts resulting from development within the Eastern Extended Planning Area were addressed in the Eastern Dublin Specific Plan Environmental Impact Report and subsequent environmental analyses for projects within the Eastern Extended Planning Area.

9.2 TRAFFIC NOISE

9.2.1 ALL PLANNING AREAS

A. Guiding Policy

1. Where feasible, mitigate traffic noise to levels indicated by Table 9.1: Land Use Compatibility for Community Noise Environments.

B. Implementing Policies

1. Encourage homeowners west of San Ramon Road who are affected by 1-580 noise to construct noise barriers on their properties where these would be effective and require such barriers for new development. This policy also applies to sites adjoining the west side of San Ramon Road at higher elevations.

Where the noise source is below the receptors, only barriers near the receptor will be effective. About 5 dB noise reduction could be achieved.

2. Support unified action by residential owners on the east side of San Ramon Road and along Village Parkway to install, repair, or extend noise barriers.

Much of this frontage was developed before effective noise barriers were required as a condition of subdivision approval. Because construction for a single lot is costly, relatively ineffective, and potentially unattractive, the City should assist in the formation of assessment districts or otherwise promote group action where there is consensus that a problem exists.

3. Design Dougherty Road improvements and adjoining residential development for compliance with noise standards.

This corridor offers the opportunity to do it right the first time without continuous walls. Berms, open space, garages near the road, and noise-conscious site planning can be used.

4. Noise impacts related to all new development shall be analyzed by a certified acoustic consultant.

5. Request demonstration of ability to mitigate noise prior to approval of light rail or bus service in the Southern Pacific Right-of-Way Transportation Corridor.

A depressed rail line or noise walls close to the tracks could make light rail a good neighbor.

6. Review all multi-family development proposals within the projected 60 CNEL contour for compliance with noise standards (45 CNEL in any habitable room) as required by State law.

Because the General Plan designates almost all residential sites subject to 60 or greater CNEL for multifamily development, this standard will be effective in Dublin. Project designers may use one or more of four available categories of mitigation measures: site planning, architectural layout (bedrooms away from noise source, for example), noise barriers, or construction modifications.

7. Review all non-residential development proposals within the projected CNEL 65 dBA contour for compliance with exterior noise transmission standards as required by the California Green Building Standards Code.



Table 9.1 | **LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS**
COMMUNITY NOISE EXPOSURE (dB)

LAND USE CATEGORY	NORMALLY ACCEPTABLE	CONDITIONALLY ACCEPTABLE*	NORMALLY UNACCEPTABLE	CLEARLY UNACCEPTABLE
Residential	60 or less	61-70	71-75	Over 75
Motels, hotels	60 or less	61-70	71-80	Over 80
Schools, churches, nursing homes	60 or less	61-70	71-80	Over 80
Neighborhood parks	60 or less	61-65	66-70	Over 70
Offices: retail commercial	70 or less	71-75	76-80	Over 80
Industrial	70 or less	71-75	Over 75	

* Conditionally acceptable exposure requires noise insulation features in building design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Source: California Office of Noise Control, 1976, as modified by Charles M. Salter Associates, Inc.

9.3 AIRPORT LAND USE COMPATIBILITY

9.3.1 EASTERN EXTENDED PLANNING AREA

A. Guiding Policy

1. All proposed land uses within the Airport Influence Area (AIA) shall be reviewed for consistency with the noise compatibility policies and overflight policies of the Airport Land Use Compatibility Plan (ALUCP) for the Livermore Municipal Airport.

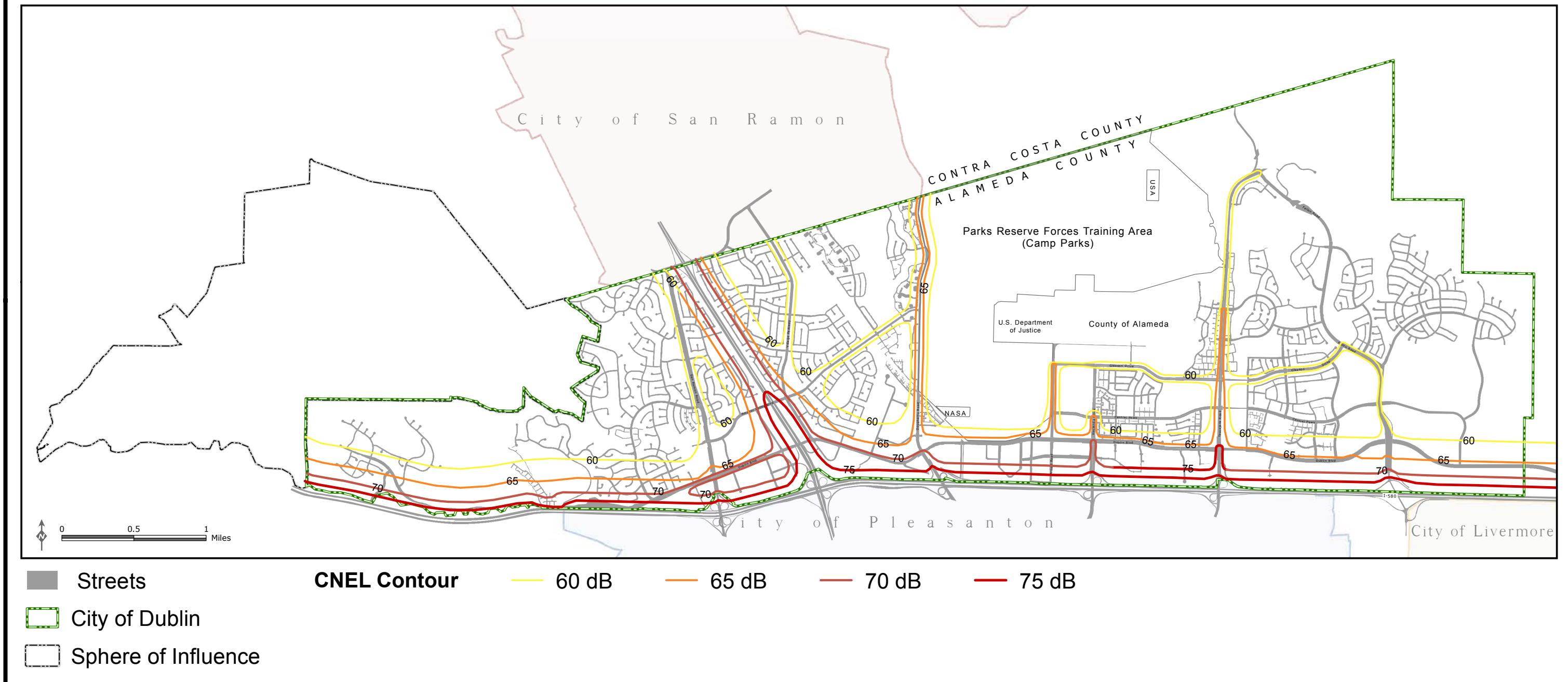
B. Implementing Policy

1. Adopt an Airport Overlay Zoning District to ensure that all proposed development within the Airport Influence Area (AIA) is reviewed for consistency with all applicable Livermore Municipal Airport, Airport Land Use Compatibility Plan (ALUCP) policies.



DUBLIN GENERAL PLAN 2011 EXISTING NOISE EXPOSURE CONTOURS

(Figure 9-1)
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DUBLIN GENERAL PLAN 2035 PROJECTED NOISE EXPOSURE CONTOURS

(Figure 9-2)
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