

9 NOISE ELEMENT

9.1 INTRODUCTION

Noise is generally defined as unwanted sound. A sound that may be disturbing to one person may go unnoticed by another. Noise levels have been quantified into units called “decibels” (dB) to remove the subjective reaction to noise by persons of differing sensitivities to noise. All sound levels referred to in this document are in A-weighted decibels (often abbreviated dBA). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner that is similar to how the human ear perceives sound.

The contents of the Noise Element and the methods used in its preparation have been determined by the requirements of Section 65302 (f) of the California Government Code and by the *Guidelines for the Preparation and Content of the Noise Element of the General Plan* prepared by the California Department of Health Services and included in the 1990 State of California *General Plan Guidelines*, published by the State Office of Planning and Research. The *Guidelines* require that major noise sources and areas containing noise-sensitive land uses be identified and quantified by preparing generalized noise exposure contours for current and projected conditions. Contours may be prepared in terms of either the Community Noise Equivalent Level (CNEL) or the Day-Night Average Level (L_{dn}), which are descriptors of total noise exposure at a given location for an annual average day. The CNEL and L_{dn} are generally considered to be equivalent descriptors of the community noise environment within plus or minus 1.0 dB.

Sources of noise can be divided into two categories: stationary and mobile sources. Within the City of Manteca, the primary source of noise is vehicular traffic along SR 99, SR 120, and other arterial routes (e.g. Yosemite Avenue). Additional noise impacts are produced from rail traffic along the rail lines that cross through the City.

The purpose of the Noise Element is to define goals and policies for managing the effect of sound in the community. It is the overall goal of the Noise Element to protect the health and welfare of the community by promoting community development and activities that are compatible with noise level criteria.

9.2 Sensitive Land Uses

Noise sensitive land uses refer to specific uses where a person would be adversely impacted by noise and where the person would have the expectation of a relatively quiet environment. Uses generally include residences of all types, nursing homes, day care centers, medical facilities, schools, parks, and open space (see Table 9-1 for complete list of sensitive land uses).

9.3 Noise Goals

The existing city is a relatively quiet residential community with the notable exceptions of the railroad operations, traffic noise from SR 99 and SR 120, and commercial/industrial uses. These sources are endemic to the community and cannot be easily avoided. The fundamental objective is to avoid creating new noise generating conditions that would degrade the existing community environment, or to place a sensitive land use where it would be adversely affected by an existing noise source.

- Goal N-1.** Protect the residents of Manteca from the harmful and annoying effects of exposure to excessive noise.

- Goal N-2.** Protect the quality of life in the community and the tourism economy from noise generated by incompatible land uses.

- Goal N-3.** Ensure that the downtown core noise levels remain acceptable and compatible with commercial and higher density residential land uses.

- Goal N-4.** Protect public health and welfare by eliminating existing noise problems where feasible, by establishing standards for acceptable indoor and outdoor noise, and by preventing significant increases in noise levels.

- Goal N-5.** Incorporate noise considerations into land use planning decisions, and guide the location and design of transportation facilities to minimize the effects of noise on adjacent land uses.

9.4 POLICIES AND IMPLEMENTATION MEASURES

9.4.1 Policies:

N-P-1: Areas within Manteca exposed to existing or projected exterior noise levels from mobile noise sources exceeding the performance standards in Table 9-1 shall be designated as noise-impacted areas.

N-P-2: New development of residential or other noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to satisfy the performance standards in Table 9-1.

N-P-3: The City may permit the development of new noise-sensitive uses only where the noise level due to fixed (non-transportation) noise sources satisfies the noise level standards of Table 9-2. Noise mitigation may be required to meet Table 9-2 performance standards.

N-P-4: The City shall require stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table 9-2.

N-P-5: In accord with the Table 9-2 standards, the City shall regulate construction-related noise impacts on adjacent uses.

N-P-6: Where the development of residential or other noise-sensitive land use is proposed for a noise-impacted area, an acoustical analysis is required as part of the environmental review process so that noise mitigation may be considered in the project design. The acoustical analysis shall:

- Be the responsibility of the applicant.
- Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.

- Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.
- Estimate existing and projected (20 years) noise levels in terms of the standards of Table 9-1 or Table 9-2, and compare those levels to the adopted policies of the Noise Element.
- Recommend appropriate mitigation measures to achieve compliance with the adopted policies and standards of the Noise Element.
- Estimate noise exposure after the prescribed mitigation measures have been implemented.
- Describe a post-project assessment program that could be used to monitor the effectiveness of the proposed mitigation measures.

N-P-7: Noise level criteria applied to land uses other than residential or other noise-sensitive uses shall be consistent with noise performance levels of Table 9-1 and Table 9-2.

N-P-8: The City shall enforce the Sound Transmission Control Standards of the California Building Code concerning the construction of new multiple occupancy dwellings such as hotels, apartments, and condominiums.

N-P-9: New equipment and vehicles purchased by the City shall comply with noise level performance standards consistent with the best available noise reduction technology.

N-P-10: The Manteca Police Department shall actively enforce requirements of the California Vehicle Code relating to vehicle mufflers and modified exhaust systems.

N-P-11: For residential development backing on to a freeway or railroad right-of-way, the developer shall be required to build a sound barrier

wall, and provide for other appropriate mitigation measures, to satisfy the performance standards in Table 9-1.

N-P-12: The City shall require new roadways to be mitigated so as to not exceed the noise levels specified in Table 9-1. Widening or other improvement projects of existing roadways shall be mitigated to the most practical extent.

N-P-13: The City shall carefully review and shall give potentially affected residents an opportunity to fully review any proposals for the establishment of helipads or heliports.

TABLE 9-1

MAXIMUM ALLOWABLE NOISE EXPOSURE MOBILE NOISE SOURCES

Land Use ⁴	Outdoor Activity Areas ¹	Interior Spaces	
		Ldn/CNEL, dB	Leq, dB ³
Residential	60 ²	45	
Transient Lodging	60 ²	45	
Hospitals, Nursing Homes	60 ²	45	
Theaters, Auditoriums, Music Halls			35
Churches, Music Halls	60 ²		40
Office Buildings	65		45
Schools, Libraries, Museums			45
Playgrounds, Neighborhood Parks	70		

¹Outdoor activity areas for residential development are considered to be backyard patios or decks of single family dwellings, and the common areas where people generally congregate for multi-family developments. Outdoor activity areas for non-residential developments are considered to be those common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

²In areas where it is not possible to reduce exterior noise levels to 60 dB L_{dn} or below using a practical application of the best noise-reduction technology, an exterior noise level of up to 65 L_{dn} will be allowed.

³Determined for a typical worst-case hour during periods of use.

⁴Where a proposed use is not specifically listed on the table, the use shall comply with the noise exposure standards for the nearest similar use as determined by the City.

TABLE 9-2**PERFORMANCE STANDARDS FOR STATIONARY NOISE SOURCES OR PROJECTS AFFECTED BY STATIONARY NOISE SOURCES^{1,2}**

Noise Level Descriptor	Daytime	Nighttime
	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
Hourly Leq, dB	50	45
Maximum Level, dB	70	65

¹Each of the noise levels specified above should be lowered by five (5) dB for simple noise tones, noises consisting primarily of speech or music, or recurring impulsive noises. Such noises are generally considered by residents to be particularly annoying and are a primary source of noise complaints.

²No standards have been included for interior noise levels. Standard construction practices should, with the exterior noise levels identified, result in acceptable interior noise levels.

9.4.2 Implementation:

- N-I-1. New development in residential areas with an actual or projected exterior noise level of greater than 60 dB L_{dn} will be conditioned to use mitigation measures to reduce exterior noise levels to less than or equal to 60 dB L_{dn} .
- N-I-2. Assist in enforcing compliance with noise emissions standards for all types of vehicles, established by the California Vehicle Code and by federal regulations, through coordination with the Manteca Police Department and the California Highway Patrol.
- N-I-3. In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are increased by 10 dB or more. An increase from 5-10 dB may be substantial. Factors to be considered in determining the significance of increases from 5-10 dB include:
- the resulting noise levels
 - the duration and frequency of the noise

- the number of people affected
 - the land use designation of the affected receptor sites
 - public reactions or controversy as demonstrated at workshops or hearings, or by correspondence
 - prior CEQA determinations by other agencies specific to the project
- N-I-4. Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours and other techniques. Use noise barriers to attenuate noise to acceptable levels.
- N-I-5. Evaluate new transportation projects, such a rail or public transit routes, using the standards contained in Table 9-1. However, noise from these projects may be allowed to exceed the standards contained in Table 9-1, if the City Council finds that there are special overriding circumstances.
- N-I-6. Require an acoustical analysis where:
- Noise sensitive land uses are proposed in areas exposed to existing or projected noise levels exceeding the levels specified in Table 9.1 or 9.2.
 - Proposed transportation projects are likely to produce noise levels exceeding the levels specified in Table 9.1 or 9.2 at existing or planned noise sensitive uses.
- N-I-7. Require that all acoustical analyses utilize a consistent format and be prepared in accordance with Policy N-P-6.
- N-I-8. Work in cooperation with Caltrans and the Union Pacific Railroad to maintain noise level standards for both new and existing projects in compliance with Table 9-1.

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