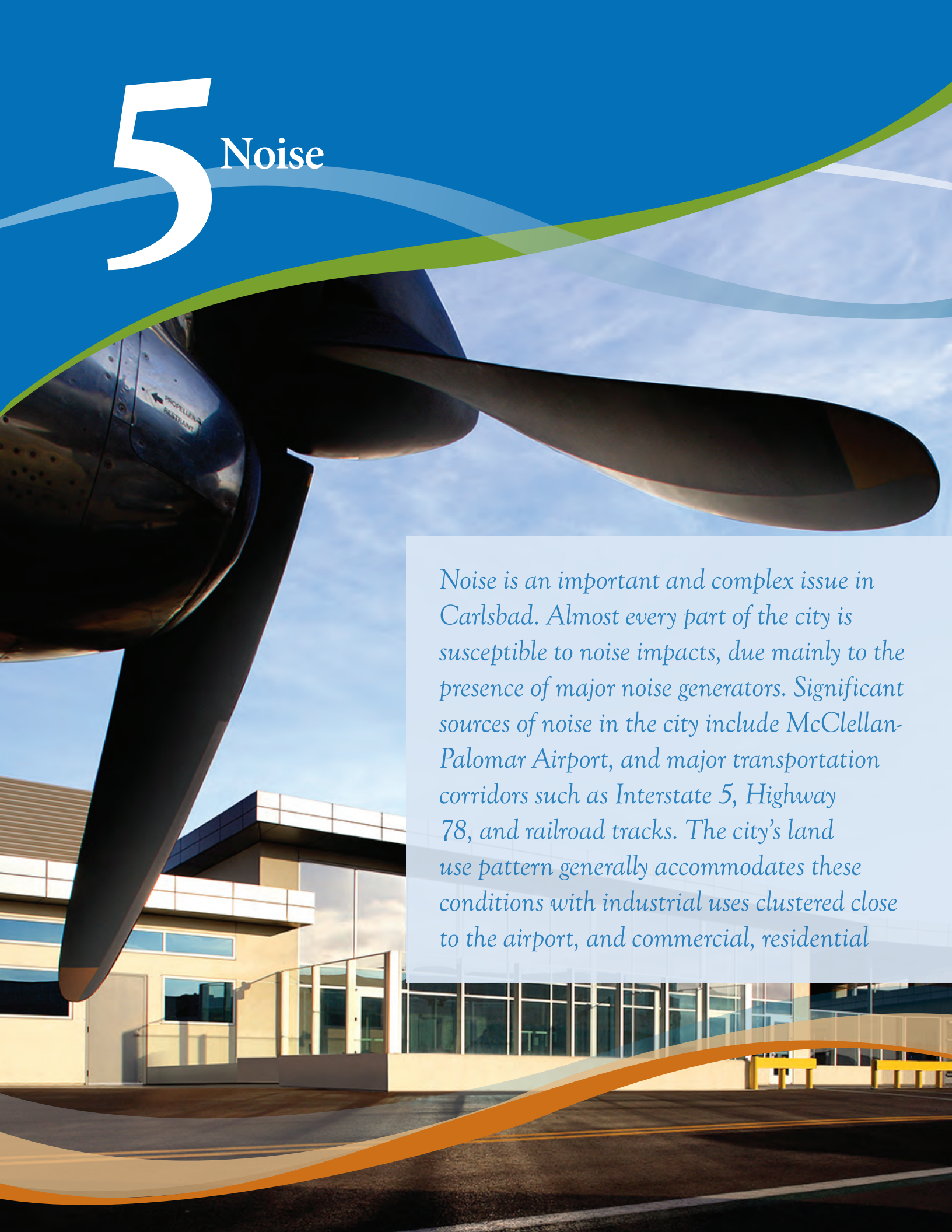
5 Noise



Noise is an important and complex issue in Carlsbad. Almost every part of the city is susceptible to noise impacts, due mainly to the presence of major noise generators. Significant sources of noise in the city include McClellan-Palomar Airport, and major transportation corridors such as Interstate 5, Highway 78, and railroad tracks. The city's land use pattern generally accommodates these conditions with industrial uses clustered close to the airport, and commercial, residential

and other uses adjacent or close to Interstate 5 and the railroad tracks.

The Noise Element is intended to ensure compliance with state requirements and promote a comprehensive, long-range program of achieving acceptable noise levels throughout Carlsbad. The Noise Element:

- *Identifies and defines existing and future environmental noise levels from sources within or adjacent to the city, by means of noise contour maps.*
- *Establishes goals, policies, and standards to minimize noise generation and mitigate impacts, especially on noise-sensitive uses such as homes and schools.*

5.1 Introduction

Background and Purpose

Noise can be defined as unwanted sound. It is sound or a series of sounds that are intrusive, irritating, objectionable and/or disruptive to daily life. Noise varies widely in its scope, source, and volume, ranging from individual occurrences such as a barking dog, to the intermittent disturbances of trains and overhead aircraft, to the fairly constant noise generated by traffic on Interstate 5.

Noise can affect all aspects of daily life and acceptable noise thresholds are established and controlled based on the various types of uses and their sensitivity to noise - uses such as residences, schools, churches, and hospitals are considered to be the most noise sensitive. The known effects of noise on humans include hearing loss, communication interference, sleep interference, physiological responses, and annoyance.

Relationship to State Law

State law (Government Code Section 65302(f)) requires general plans to include a Noise Element that identifies and appraises noise problems in the community. The Noise Element shall recognize the guidelines established by the State Department of Public Health and analyze and quantify, to the extent practicable, as determined by the jurisdiction's legislative body, current and projected noise levels for all of the following sources:

- Highways and freeways;
- Primary arterial and major local streets;
- Passenger and freight online railroad operations and ground rapid transit systems;
- Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation;
- Local industrial plants, including, but not limited to, railroad classification yards; and
- Other ground stationary noise sources identified by local agencies as contributing to the community noise environment.

Relationship to Community Vision

The Noise Element is most closely tied to the community's quality of life objectives in the Carlsbad Community Vision:

Core Value 9: Neighborhood Revitalization, Community Design and Livability. Revitalize neighborhoods, and enhance citywide community design and livability.

Relationship to Other General Plan Elements

The Noise Element is correlated with the Land Use and Community Design, Mobility, and Housing Elements. Future noise contour information is based on traffic volumes, speeds, etc., and railroad and airport operations as described in the Mobility Element. Noise can have a significant impact on land use, and policies in the Noise Element are designed to ensure protection from noise for sensitive uses, as shown on the Land Use Map in the Land Use and Community Design Element. The Noise Element relates to the Housing Element by promoting desirable residential environments that are buffered from undesirable noise impacts.

5.2 Noise Characteristics and Measurement

Noise Measurement

Three aspects of noise are used in assessing the community noise environment:

- **Level** is the magnitude or loudness of sound. Sound levels are measured and expressed in decibels (dB) with 10 dB roughly equal to the threshold of hearing. Transient noise events may be described by their maximum noise level (Lmax), measured in decibels "A-weighted" to correct for the frequency response of the human ear (dBA). Another term that is sometimes used is Leq or Equivalent Continuous Sound Level, used to describe with one single figure sound pressure levels that vary over time. Figure 5-1 shows the decibel levels associated with different common sounds.
- **Frequency** is the composition or spectrum of the sound. Frequency is a measure of the pressure fluctuations per second.
- **Variation** is sound level over time. Most community noise is produced by many distant noise sources that change gradually throughout the day and result in steady background noise with no identifiable source. Identifiable events of brief duration, such as aircraft flyovers, cause the community noise level to vary from instant to instant. The Community Noise Equivalent Level (CNEL) and Day-Night Noise Level (Ldn) both reflect a weighted average of noise exposure over an average day. Different weighting factors are used for day, evening, and nighttime periods to recognize that community members are most sensitive to noise in late night hours and are more sensitive during evening hours than in daytime hours. The weighting factors require an addition of 5 decibels (dB) to sound levels in the evening hours between 7:00 p.m. and 10:00 p.m. and an addition of 10 dBs to sound levels at nighttime hours between 10:00 p.m. and 7:00 a.m.

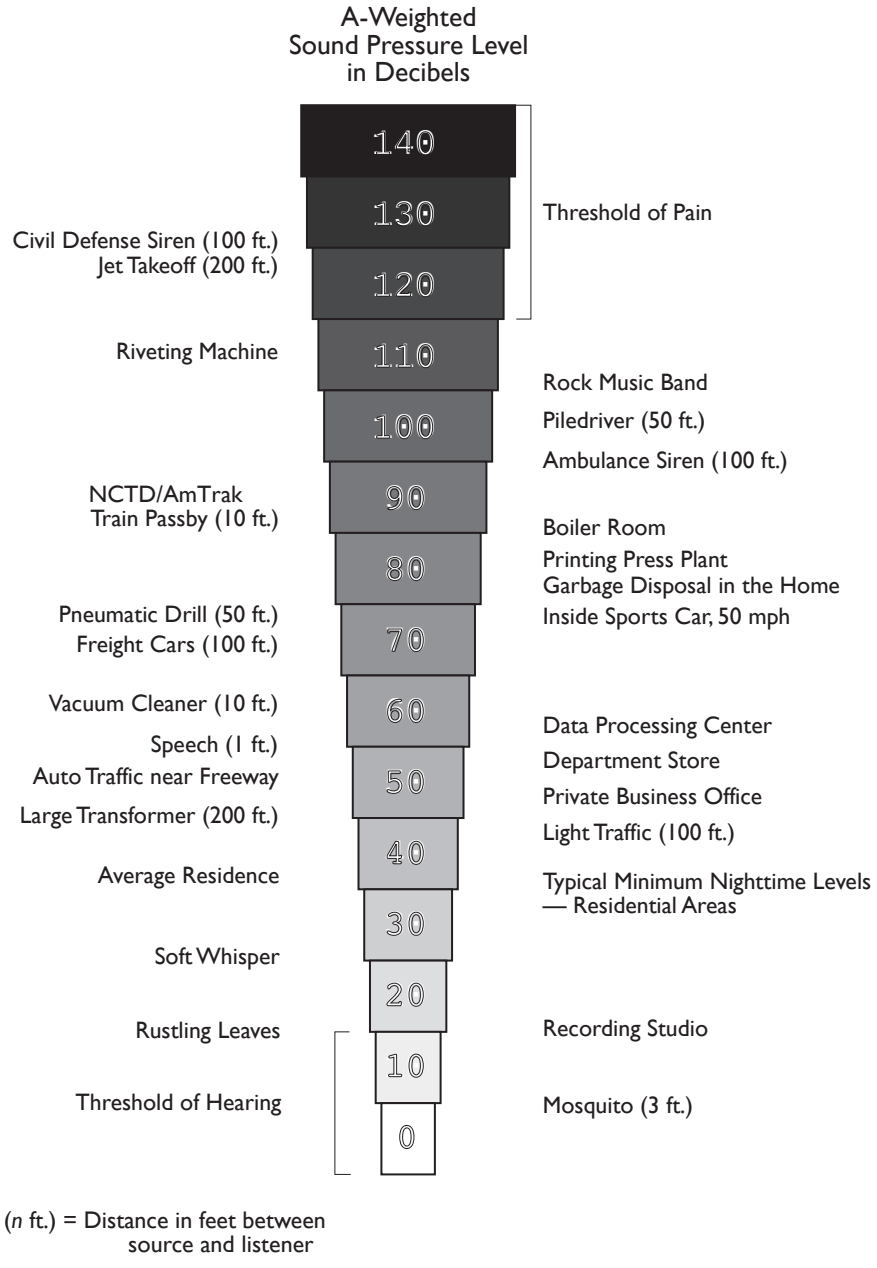
Reporting Noise Levels

Measuring and reporting noise levels involves accounting for variations in sensitivity to noise during the daytime versus nighttime hours. Knowledge of the following relationships is helpful in understanding how changes in noise and noise exposure are perceived:

- Except under special conditions, a change in sound level of 1 dB cannot be perceived;
- A 3 dB change is considered a just noticeable difference;
- A 5 dB change is required before any noticeable change in community response would be expected; and
- A 10 dB increase is subjectively heard as an approximate doubling in loudness.

In establishing noise contours for land use planning, it is customary to ignore noise attenuation provided by buildings, street elevations, and depressions, and to minimize the barrier effect of natural terrain features. The result is a worst-case estimate of the existing and future (projected) noise environment. The purpose of noise contours is to identify the potential need for more detailed acoustical studies, not to predict with certainty the noise level throughout the city. The assumption is that it is desirable to overestimate the potential noise at a future noise-sensitive development site than to underestimate the noise environment and allow for potentially incompatible land use development.

Figure 5-1: Noise Measurement



5.3 Noise Sources in Carlsbad

Common noise sources in Carlsbad are described below. Figure 5-2 shows existing noise contours for all major streets in the community based on a noise survey conducted in August 2013 at various locations in Carlsbad, information on traffic flows, railroad operations, and other sources, such as the McClellan-Palomar Airport Land Use Compatibility Plan. Figure 5-3 shows future (year 2035) noise contours. The policies of this element are intended to avert future problems caused by significant noise. The city regulates site design and requires sound attenuation measures for new development in the vicinity of incompatible noise sources.

Traffic

Vehicular noise has three main component sources: engine/transmission noise, exhaust noise and tire noise. The intensity of noise emissions from any given vehicle will vary with its size and other factors, such as speed, acceleration, braking, street grade and conditions of the street surface. Thus, a busy downtown arterial with stop and go traffic is often noisier than an open street with comparable traffic volumes.

Street traffic noise, including Interstate-5, is the most extensive noise problem faced by Carlsbad. Noise from Interstate-5 has the greatest existing and projected street noise emissions. As part of the North Coast Corridor Program, future expansion of Interstate-5 is proposed in combination with expansion of the train tracks along the north San Diego County coastline. Expansion of Interstate-5 through Carlsbad is proposed to include two additional lanes in each direction and additional lanes for merging and exiting, and ramp improvements. Train tracks used by the Coaster commuter train and Amtrak trains are planned to be bolstered with a second track along the entire coast. The proposal must be considered by the California Coastal Commission, and if approved the improvements are planned to be constructed in phases through year 2040.

Other major streets with high levels of noise include Highway 78 and several arterial streets—El Camino Real, Palomar Airport Road, Rancho Santa Fe Road, Melrose Drive and Carlsbad Boulevard.

Noise contours have been prepared for all major streets in Carlsbad, as shown on the current and future noise contour maps (See Figure 5-2: Existing Noise Contour Map and Figure 5-3: Future Noise Contour Map).

Railroad

The North County Transit District (NCTD) owns the rail line and two passenger rail stations located within the city: Carlsbad Village and Carlsbad Poinsettia stations. NCTD operates the Coaster commuter rail service on this rail line; the Atchison, Topeka & Santa Fe freight line and the Amtrak passenger

service also use the rail line through the city. Proposed expansion of the railroad is described above in the discussion regarding traffic noise.

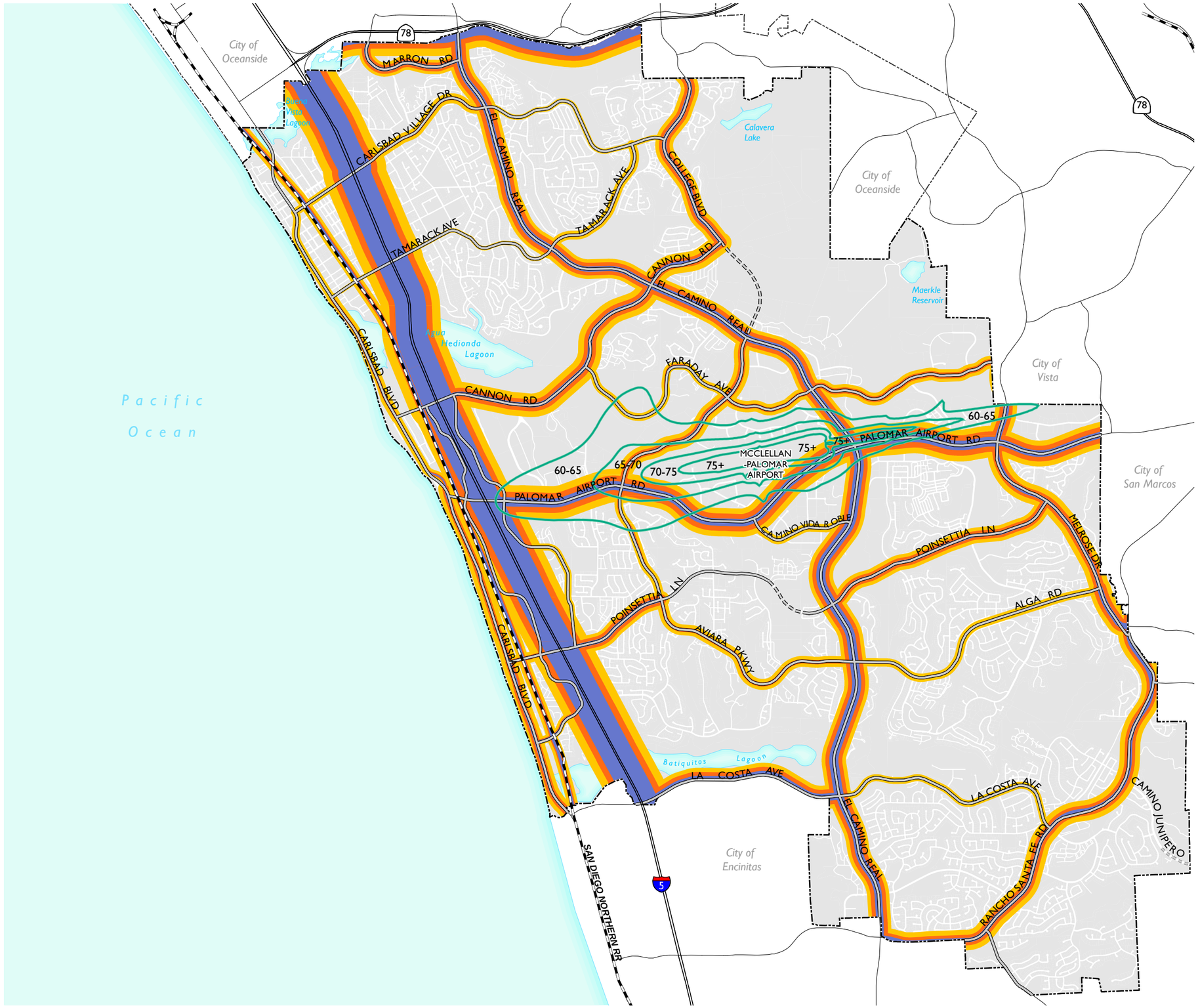
Airport Noise

McClellan-Palomar Airport is presently operating as a commercial service facility and is located west of El Camino Real, just north of Palomar Airport Road. State law requires regional airport land use commissions to prepare airport land use compatibility plans in order to "provide for the orderly growth of each public airport and the area surrounding the airport... [and to] safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general (Public Utilities Code Section 21675)." Such compatibility plans must be based on a long range master plan or airport layout plan that reflects the airport's anticipated growth over the next 20 years. The McClellan-Palomar Airport Land Use Compatibility Plan (ALUCP) was adopted in December 2010, and amended in December 2011. It is based on the Airport Master Plan, dated 1997, and the Airport Layout Plan, which was approved by the Federal Aviation Administration in 2004. The County of San Diego has initiated the process of developing a new 20-year (2015 to 2035) master plan for McClellan-Palomar Airport as the current 1997 Master Plan nears the end of its planning period in 2015.

The current McClellan-Palomar Airport Land Use Compatibility Plan (ALUCP) modeled exposure levels based on approximately 289,100 annual aircraft operations, which is the aviation forecast in the current 1997 Airport Master Plan. In general, land in the immediate vicinity of the airport or under the take-off or landing approach is subject to noise levels that are unsuitable for residential development, schools, hospitals and other similar noise sensitive uses. Projected noise contours around the airport are provided in the ALUCP and have been included in this element (See Figure 5-3: Future Noise Contours). In December 2005, the County of San Diego, as the owner/operator of McClellan-Palomar Airport, prepared an update to the airport's FAR Part 150 Noise Study. The purpose of the study is to assess the noise impacts on surrounding land uses, and, if necessary, recommend changes to existing zoning ordinances and general plans. The findings of this study resulted in FAA approval of a number of recommended measures in December 2006, as follows:

- Provide the City of Carlsbad with the recommended noise impact notification area (NINA) and noise exposure maps and any future updates to these boundaries;
- Recommend rezoning undeveloped land within the 60 CNEL contour for industrial use;
- Require real estate disclosures within the airport influence area (AIA);

Figure 5-2: Existing Noise Contours



Existing Noise Contours

- 70 + CNEL
- 65 - 70 CNEL
- 60 - 65 CNEL
- Airport Noise Contour Lines
- Highways
- Major Street
- Planned Street
- Railroad
- City Limits

500 ACRES

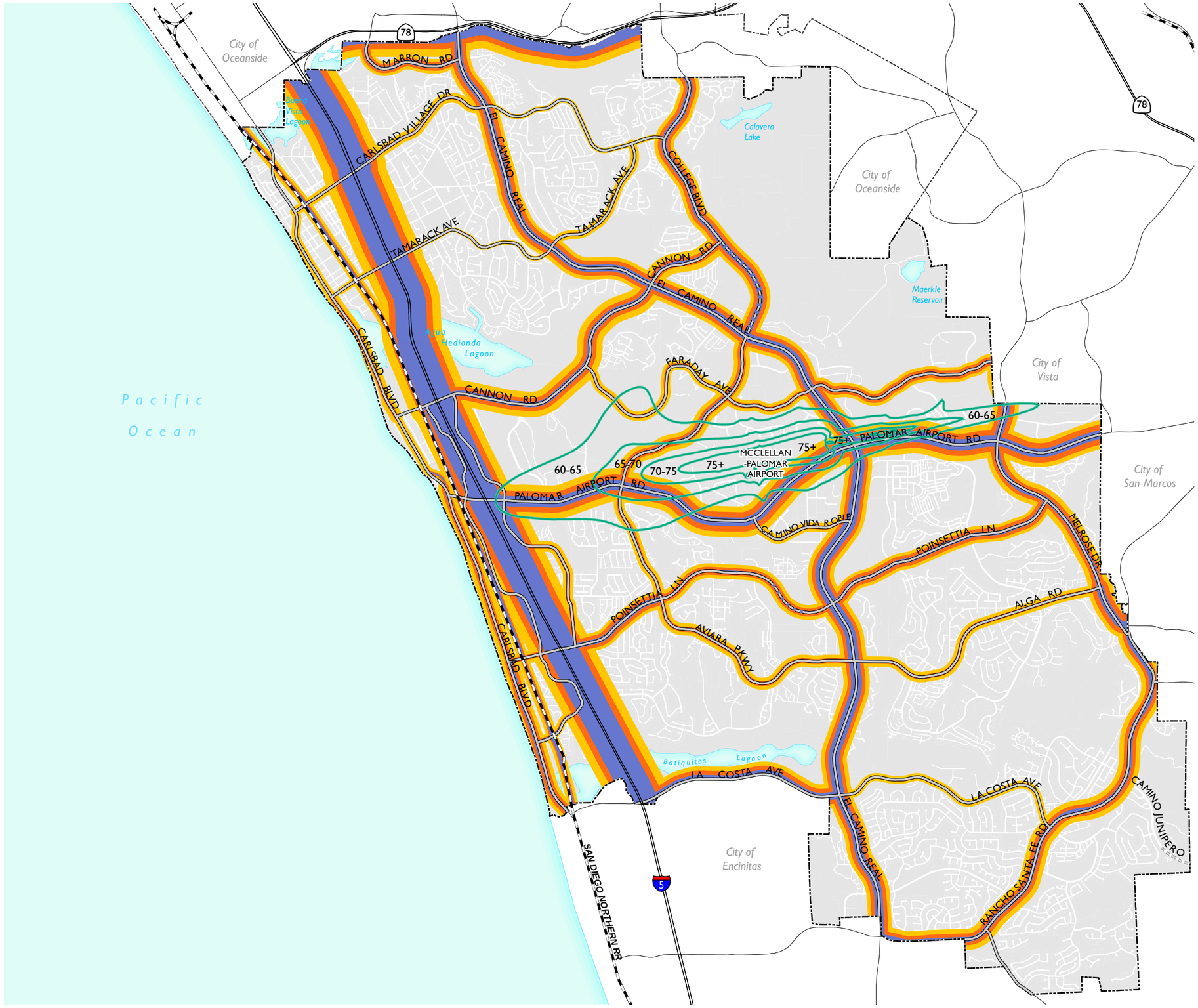
100 ACRES

0 0.5 1 2

Miles

Source: DUDEK, 2013; City of Carlsbad, 2013; SANDAG, 2013; McClellan-Palomar Airport Land Use Compatibility Plan, 2010; Dyett & Bhatia, 2013.

Figure 5-3: Future Noise Contours



2035 Noise Contours

- 70 + CNEL
- 65 - 70 CNEL
- 60 - 65 CNEL
- Airport Noise Contour Lines
- Highways
- Major Street
- Planned Street
- Railroad
- City Limits

500 ACRES

100 ACRES

0 0.5 1 2

Miles

Source: DUDEK, 2013; City of Carlsbad, 2013; SANDAG, 2013; McClellan-Palomar Airport Land Use Compatibility Plan, 2010; Dyett & Bhatia, 2013.

- Erect signs on airport property along El Camino Real and Palomar Airport Road to inform drivers of the existence and location of the airport; and
- Implement the "Fly Friendly" program recently adopted by the Palomar Advisory Committee.

Land Use

Future noise levels may also be affected by the construction of new land uses that generate noise. For example, industrial uses are a source of noise from use of mechanical equipment, generators, and vehicles, which can affect adjacent uses. Residences, schools, hospitals, and churches are generally considered more sensitive to noise than are commercial or industrial activities. To respond to the noise sensitivity of certain land uses, this element includes policies to reduce noise impacts on such uses.

Other Mobile Sources

Occasional noise from mobile sources, such as off-road motorcycles, motorboats and vehicles with faulty exhaust systems, can affect residents. The city controls these noise sources by prohibiting motorized off-road vehicles, enforcing the vehicle code, and enforcing the city's boating regulations for Agua Hedionda Lagoon.

5.4 Regulations and Noise Exposure Standards

Federal and state standards, and city standards established in this General Plan, are designed to protect community members and sensitive receptors from noise hazards and establish criteria to mitigate noise impacts accordingly.

Federal Regulations

Department of Housing and Urban Development (HUD)

HUD's environmental criteria and standards are presented in Title 24 of the Code of Federal Regulations (CFR), Part 51. New construction proposed in high noise areas (exceeding 65 dBA Ldn) must incorporate noise attenuation features to maintain acceptable interior noise levels (45 dBA Ldn). It is assumed that with standard construction, any building will provide sufficient attenuation to achieve an interior noise level of 45 dBA Ldn or less if the exterior noise level is 65 dBA Ldn or less. Development in a "normally unacceptable noise zone" (exceeding 65 decibels, but not exceeding 75 decibels) require a minimum of 5 decibels of additional noise attenuation for buildings having noise sensitive uses if the day-night average is greater than 65 decibels, but does not exceed 70 decibels, or a minimum of 10 decibels of additional noise attenuation if the day-night average is greater than 70 decibels, but does not exceed 75 decibels.

Federal Highway Administration (FHWA)

Title 23 of the CFR, Part 772 (Procedures for Abatement of Highway Traffic Noise and Construction Noise) requires an assessment of noise and consideration of noise abatement for proposed federal or federal-aid highway construction projects on a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes. FHWA considers noise abatement for sensitive receivers, such as picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals when "worst-hour" noise levels approach or exceed 67 dBA Leq.

Federal Transit Administration (FTA)

The FTA uses noise vibration impact criteria for buildings with noise sensitive uses, residences, and institutional land uses near railroads. The noise vibration thresholds for residences and buildings where people normally sleep are 72 VdB[1] for frequent vibration events (more than 70 vibration events of the same source per day), 75 VdB for occasional vibration events (30 to 70 vibration events of the same source per day), and 80 VdB for infrequent vibration events (less than 30 vibration events of the same source per day).

1 VdB is a logarithmic scaling of vibration amplitude, allowing relative measurements to be easily made.

Federal Railroad Administration (FRA)

The FRA's Office of Safety is responsible for enforcing the Railroad Noise Emissions Compliance Regulation that sets maximum sound levels from railroad equipment and for regulating locomotive horns.

Federal Aviation Administration (FAA)

Enforced by the FAA, Title 14 of the CFR, Part 150 describes the procedures, standards and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs. Title 14 also identifies the land uses that are normally compatible with various levels of noise exposure. The FAA has determined that sound levels up to 45 dBA CNEL are acceptable within residential buildings.

State Regulations

The California Building Standards Code (Title 24 of the California Code of Regulations (CCR)) provides regulations for both exterior and interior sound insulation. For general residential uses, the regulations specify that existing and future interior noise levels generated by exterior noise sources shall not exceed 45 dB in any habitable room with windows closed. Future noise levels must be predicted at least 10 years from the time of building permit application. CCR Title 24 standards are enforced through the building permit application process.

Carlsbad Municipal Code and Noise Guidelines

The Carlsbad Municipal Code regulates noise related to construction, events, animals, and other temporary nuisances. The city also maintains the Noise Guidelines Manual, which is consistent with the General Plan and provides detailed project review and design criteria related to noise.

Noise Standards

General Plan noise standards are shown in Table 5-1 and Table 5-2.

Community Noise Exposure

Table 5-1 presents the community noise exposure matrix, establishing criteria the city shall use to evaluate land use compatibility based on noise emanating from all sources.

Allowable Noise Exposure

Table 5-2 indicates acceptable limits of noise for various land uses for both exterior and interior environments from transportation sources. While Table 5-1 establishes standards to help the city determine the appropriateness of locating specific uses in noise-prone environments, Table 5-2 provides standards that development shall attain through noise attenuation measures. These limits are based on guidelines provided by the California Office of Planning and Research.

TABLE 5–1: LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

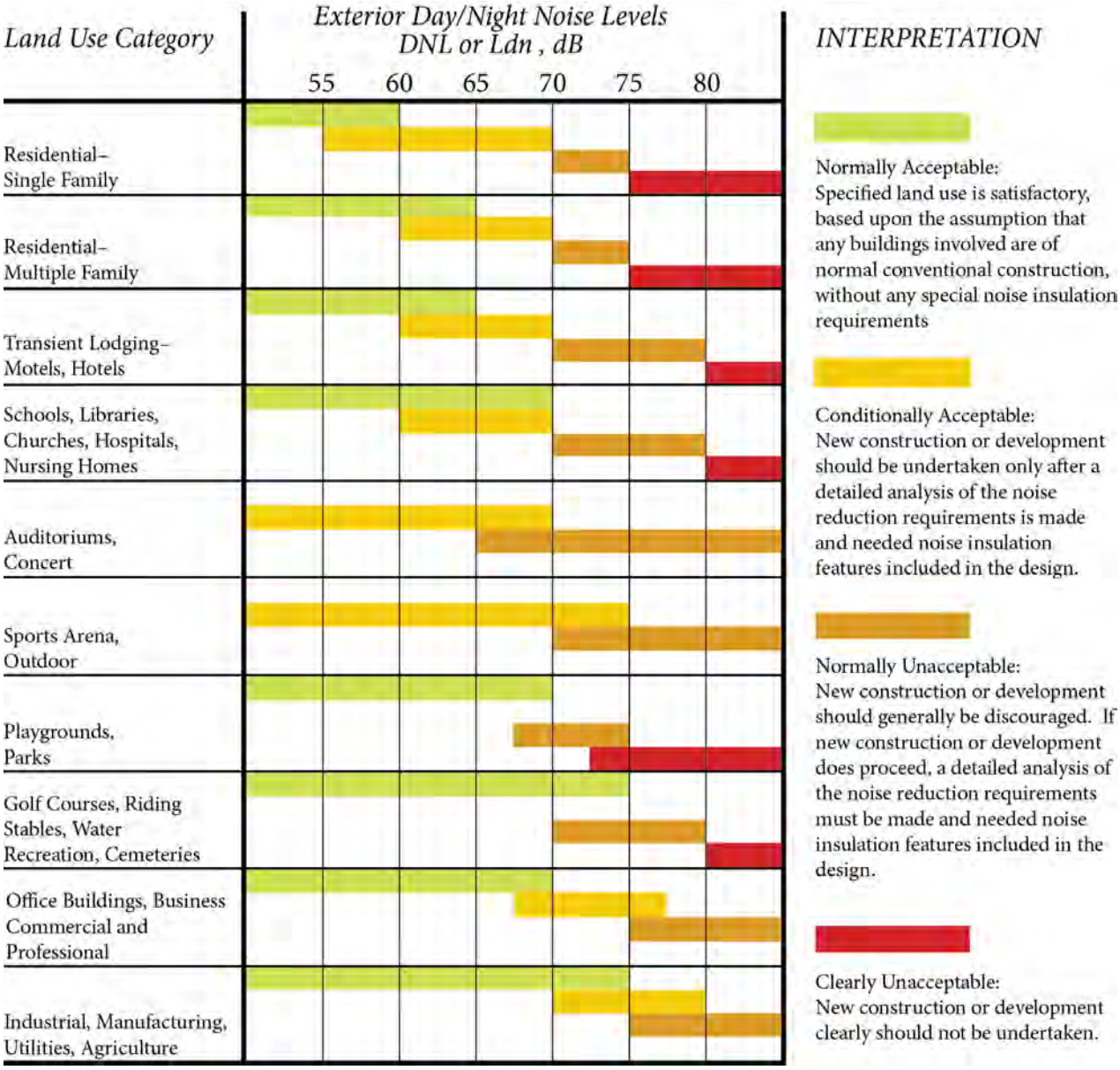


Table 5-3 provides standards for noise from non-transportation noise sources such as, but not limited to, industrial facilities, automotive servicing, car washes, equipment yards, nightclubs, hotels, and shopping centers. These standards apply to the noise sources themselves, as measured at the edge of the property line; noise caused by motor vehicles traveling to and from the site is exempt from this standard.

TABLE 5–2: ALLOWABLE NOISE EXPOSURE[1]

LAND USE	OUTDOOR ACTIVITY[2, 3] AREAS (DBA CNEL)	INTERIOR SPACES (DBA CNEL)
Residential	60[4]	45
Motels, Hotels	65	45
Hospitals, Residential Care Facilities, Schools, Libraries, Museums, Churches, Day Care Facilities	65	45
Playgrounds, Parks, Recreation Uses	65	50
Commercial and Office Uses	65	50
Industrial Uses	70	65

1 Development proposed within the McClellan-Palomar Airport Area of Influence shall also be subject to the noise compatibility policies contained in the ALUCP.

2 For non-residential uses, where an outdoor activity area is not proposed, the standard does not apply. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving use.

3 Where it is not possible to reduce noise in outdoor activity areas to the allowable maximum, levels up to 5 dB higher may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

4 An exterior noise exposure level of 65 dBA CNEL is allowable for residential uses in a mixed-use project and for residential uses within the McClellan-Palomar Airport Area of Influence, pursuant to the noise compatibility policies contained in the ALUCP.

TABLE 5–3: PERFORMANCE STANDARDS FOR NON-TRANSPORTATION SOURCES (AS MEASURED AT PROPERTY LINE OF SOURCE/SENSITIVE USE)

NOISE LEVEL DESCRIPTOR	DAYTIME (7 A.M. TO 10 P.M.)	NIGHTTIME (10 P.M. TO 7 A.M.)
Hourly Leq, dB	55	45
Maximum Level, dB	75	65

Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

5.5 Goals and Policies

Goals

5-G.1 Protect public health and welfare by eliminating existing noise problems where feasible, maintaining an acceptable indoor and outdoor acoustic environment, and preventing significant degradation of the acoustic environment.

5-G.2 Ensure that new development is compatible with the noise environment, by continuing to use potential noise exposure as a criterion in land use planning.

5-G.3 Guide the location and design of transportation facilities, industrial uses and other potential noise generators to minimize the effects of noise on adjacent land uses.

5-G.4 Ensure long-term compatibility between the airport and surrounding land use.

5-G.5 Foster healthy and productive work environments that do not cause hearing damage or other adverse noise related health impacts to workers in Carlsbad.

Policies

Land Use and Noise Compatibility

5-P.1 **Acceptability of Use Location**. Use the noise and land use compatibility matrix (Table 5-1) and Future Noise Contours map (Figure 5-3) as criteria to determine acceptability of a land use, including the improvement/construction of streets, railroads, freeways and highways. Do not permit new noise-sensitive uses—including schools, hospitals, places of worship, and homes—where noise levels are "normally unacceptable" or higher, if alternative locations are available for the uses in the city.

5-P.2 **Required Noise Analysis.** Require a noise analysis be conducted for all discretionary development proposals (except for developments of single family homes with four units or fewer) located where projected noise exposure would be other than "normally acceptable".

A required noise analysis should:

a. Be prepared by a certified noise consultant or acoustical engineer;

b. Be funded by the applicant;

c. Include a representative, on-site day and night sound level measurement;

d. Include a delineation of current (measured) and projected (General Plan or 10 years in future, whichever horizon extends further out) noise contours;

e. Identify noise levels with and without the proposed project, ranging from 55 to 75 dBA (Ldn) within the proposed development site; and

f. If noise levels exceed the standards in Table 5-1, include a description of adequate and appropriate noise abatement measures to mitigate the noise to allowable levels for the proposed use.

5-P.3 **Noise-Attenuation.** For all projects that require discretionary review and have noise exposure levels that exceed the standards in Table 5-1, require site planning and architecture to incorporate noise-attenuating features. With mitigation, development should meet the allowable outdoor and indoor noise exposure standards in Table 5-2. When a building's openings to the exterior are required to be closed to meet the interior noise standard, then mechanical ventilation shall be provided.

5-P.4 **Exterior Noise Levels Exceeding Acceptable Level.** If the noise analysis shows that exterior noise levels cannot be mitigated to an acceptable level as identified in Table 5-2, the development should not be approved without one or more of the following findings:

a. Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the noise.

b. Changes or alterations to avoid or substantially lessen noise are within the responsibility and jurisdiction of another public agency and not the City of Carlsbad. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

c. Specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives to avoid or substantially lessen noise.

If a project is approved with exterior noise levels exceeding the acceptable noise level, all purchasers of the impacted property shall be notified in writing prior to purchase, and by deed disclosure in writing, that the property they are purchasing is, or will be, impacted by noise and does not meet City of Carlsbad noise standards for residential property.

5-P.5 **Noise Generation.** As part of development project approval, require that noise generated by a project does not exceed standards established in Table 5-3.

5-P.6 **Berms and Sound Walls.** Discourage the use of berms and sound walls for noise mitigation; rather, encourage the use of project design techniques such as increasing the distance between the noise source and the noise sensitive receiver and use non-noise sensitive structures (e.g., a garage) to shield noise sensitive areas. If a berm or wall is determined necessary to mitigate noise, discourage exclusive use of walls in excess of six feet in height and encourage use of natural barriers such as site topography or constructed earthen berms. When walls are determined to be the only feasible

solution to noise mitigation, then the walls shall be designed to limit aesthetic impacts. When walls over six feet in height are necessary to mitigate noise, a berm/wall combination with heavy landscaping, a terraced wall heavily landscaped, or other similar innovative wall design technique shall be used to minimize visual impacts.

5-P.7 **Mitigation Cost.** The City of Carlsbad shall not fund mitigation of existing or future noise impacts from streets, railroad, airport or any other source for existing or future private development within the city.

5-P.8 **Noise Guidelines Manual.** Update the Noise Guidelines Manual to ensure consistency with General Plan standards and policies, and contemporary practices.

Motor Vehicle/Roadway Noise

5-P.9 Continue to enforce the California Motor Vehicle Code as it applies to excessive noise. The Carlsbad Police Department should continue to reduce the number of excessively noisy vehicles on city streets and deter persons from operating their motor vehicles in a noisy manner.

5-P.10 Consider noise impacts in the design of road systems and give special consideration to noise sensitive areas; to the greatest extent possible, the design of roads should minimize roadway noise to levels acceptable to surrounding areas.

5-P.11 Review traffic flow systems and, wherever possible, synchronize signalization and/or implement other traffic flow improvements to avoid traffic stops and starts, and adjust traffic flow to achieve noise levels acceptable to surrounding areas.

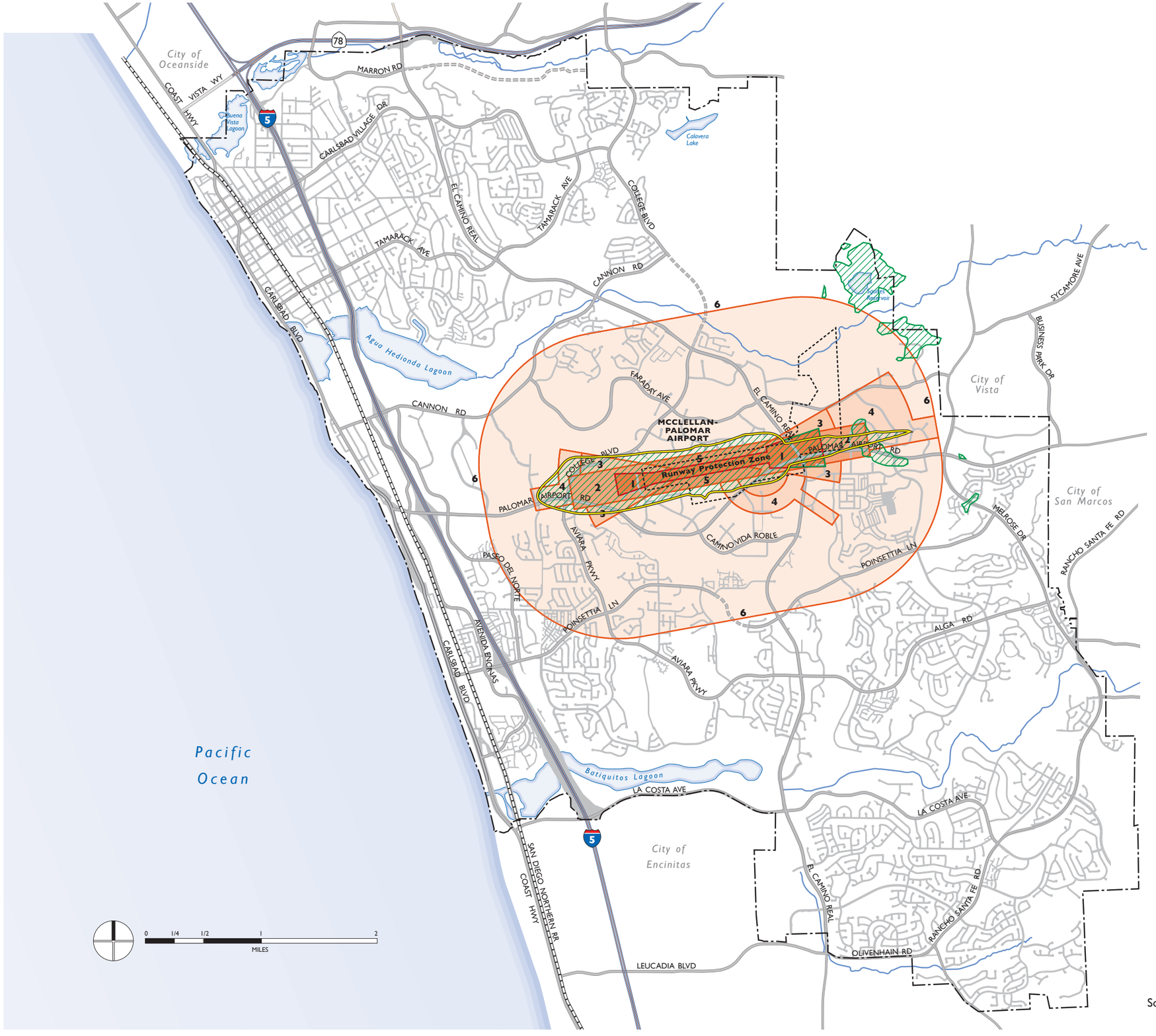
Airport Noise

For policies related to land use compatibility in the airport environs, see Chapter 2: Land Use and Community Design Element; for safety policies, see Chapter 6: Public Safety Element. Figure 6-7 shows safety zones, avigation easement areas, and overflight notification areas. Figure 5-3 includes future noise contours associated with airport operations. Figure 5-4 shows synthesis of some key features – avigation easement areas, airport safety zones 1-6, and 65 dB CNEL.

5-P.12 Use the noise policies in the McClellan-Palomar Airport Land Use Compatibility Plan (ALUCP) to determine acceptability of a land use within the airport's influence area (AIA) as depicted in the ALUCP. Additional disclosure actions for new development in the AIA, such as avigation easements, deed restrictions, recorded notice, etc., are required of developers/sellers of noise impacted residential units.

5-P.13 For projects within the Airport Influence Area, utilize the noise standards contained in the McClellan-Palomar ALUCP, as well as the noise standards contained in this element. However, reserve the right to overrule the ALUCP as provided for in State Public Utilities Code Section 21676.

Figure 5-4: Airport Noise Compatibility Policy



- Airport Safety Zones
  - Zone 1- Runway Protection Zone
  - Zone 2 - Inner Approach/Departure Zone
  - Zone 3 - Inner Turning Zone
  - Zone 4 - Outer Approach/Departure Zone
  - Zone 5 - Sideline Zone
  - Zone 6 - Traffic Pattern Zone
- Avigation Easement Areas*
- 65 dB CNEL Noise Contour
- Airport Property Boundary
- City Limits
- Major Road
- Planned Road
- Railroad

*Defined as the Runway Protection Zone or within the contour of the 65 dB CNEL or areas where the ground penetrates a Part 77 airspace surface.

Source: McClellan-Palomar Airport Land Use Compatibility Plan, 2010.

5-P.14 Recognize that procedures for the abatement of aircraft noise have been identified in the Fly Friendly Program for McClellan-Palomar Airport. The city expects the widespread dissemination of, and pilot adherence to, the adopted procedures.

5-P.15 Expect the airport to control noise (to the extent of its limited authority granted by the Federal Aviation Administration to indirectly regulate aircraft noise through airport design and scheduling) while the city shall control land-use thus sharing responsibility for achieving and maintaining long-term noise/land-use compatibility in the vicinity of McClellan-Palomar Airport.

5-P.16 Require new nonresidential development to comply with the noise compatibility criteria in the ALUCP. Require dedication of avigation easements for new developments designated as conditionally compatible for noise in the ALUCP, and which are located within the 65 dB CNEL noise contour as mapped on Figure 5-4: Airport Noise Compatibility Policy Map.

Railroad Noise

5-P.17 Coordinate with other agencies and private entities to investigate methods of implementing a railroad quiet zone and other methods of reducing railroad noise impacts on surrounding uses; such as through development of a grade separated rail corridor.

Work-Related Noise

5-P.18 Participate in noise control and hearing conservation programs in all appropriate work environments owned, operated, or otherwise under the control of the City of Carlsbad.

5-P.19 Promote that all persons responsible for operation of noise-producing equipment or processes, exercise reasonable care to minimize casual noise exposure to unprotected workers or passers-by to reduce risk of hearing damage.

5-P.20 Encourage and assist its employees in identifying and abating potential noise hazards on city-owned or controlled property.

This page intentionally left blank.