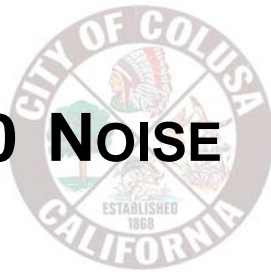

7.0 NOISE



7.1 INTRODUCTION

The Noise Element is a legally required Element and is included in this General Plan because noise in any community can be regarded as a health problem. Excessive noise may produce actual physiological damage such as hearing impairment, but, just as importantly, noise interferes with the quiet use and enjoyment of one's property. The health effects of noise in the community can interfere with human activities such as sleep, speech, recreation, and tasks demanding concentration or coordination. When community noise interferes with human activities, public tolerance for that noise source decreases. This decrease in acceptability and the threat to public health and welfare are the basis for land use planning policies that minimize or prevent exposure to excessive noise levels. This Noise Element addresses issues related to noise in and around the City.

NOISE ELEMENT OBJECTIVES

The basic objectives of the Noise Element include:

- Ensuring that site design requirements for residential development are adequate to protect residents from sound levels that exceed the specified residential standards.
- Protecting sensitive land uses, such as schools, hospitals, and libraries from sound levels in excess of residential sound levels.
- Designing streets to reduce, wherever feasible, excessive noise from the roadways.
- Restricting truck traffic in residential areas, except for deliveries within the area or on designated truck routes. To the extent possible, truck usage in residential areas should be limited to daylight hours.
- Providing sound protection, to the extent possible, along transportation routes in accordance with the adjacent land uses.
- Providing sound protection, to the extent possible, from aircraft during takeoff and landing.

The Noise Element outlines goals, policies, and implementing actions to protect Colusa residents from excessive noise levels that are annoying to the senses and detrimental to public health. The element establishes acceptable noise level standards for land uses affected by both mobile and stationary noise sources, including temporary noise related to construction. Noise and land use compatibility criteria are designed to provide an acceptable community noise environment and to minimize noise-related complaints from residents. The compatibility criteria should be used in conjunction with future noise exposure levels in order to identify projects or activities that may require special treatment to minimize noise exposure.

NOISE FUNDAMENTALS

Noise is often described as unwanted sound and is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (20+ times per second), they can be heard and hence are called sound. Two parameters are used to technically describe certain sounds: amplitude and frequency. Amplitude is measured in units of decibels, abbreviated dBA. The amplitude of a sound is a measure of the pressure or force that a sound can exert. Frequency is measure in Hertz (hz), meaning cycles per second, and refers to

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the number of times that the acoustic pressure (amplitude) peaks in each sound. A sound that has more cycles per second is higher pitched. High-pitched sounds are produced by a rapidly vibrating sound source, and low-pitched sounds are from a more slowly vibrating source.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel (dB) scale was devised (see **Table 7.1**). The decibel scale uses the hearing threshold (20 micropascals) as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in levels correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

Everyday sound normally ranges from 30 dBA (very quiet) to 100dBA (very loud). The average level of conversation ranges from 30 to 80 dBA. Sound becomes discomforting at 120 dBA and physically painful above 140 dBA (See **Table 7.1**).

**TABLE 7.1
A-WEIGHTED DBA SCALE**

Individual Or Community Response To Continuous Noise	Sound Level, dBA	Noise Source
Threshold of Physical Discomfort	120	Commercial Jet Takeoff (Near Runway)
	110	Riveting Machine
	100	Pile Driver (50')
Hearing Damage Criteria for 8-Hour Workday	90	Ambulance Siren (100') Diesel Bus (At Sidewalk)
	80	Inside Boiler Room or Printing Press Plant Gas Lawn Mower (100')
	70	Inside Sports Car (50mph) Freight Train (100')
Acceptable Limit for Residential Development	60	Car Passby (50') Average Urban Area Inside Department Store

Individual Or Community Response To Continuous Noise	Sound Level, dBA	Noise Source
Goal for Urban Area	50	Inside Business Office Light Traffic
	40	Inside Home
No Community Annoyance	30	Quiet Rural Area
	20	Inside Recording Studio
	10	
Threshold of Hearing	0	

Source: Parsons, 2003.

Community noise is commonly described in terms of the “ambient” noise level. Several rating scales have been developed for the measurements of community noise. The predominant rating scales now used in California are:

- **L_{eq}-Energy Noise Level.** A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}). The sound level corresponding to a steady-state sound level containing the same total energy as the time varying signal over a given sample period, which corresponds to a steady-state A-weighted sound level.
- **L_{dn}-Day-Night Average Sound level.** Similar to L_{eq} but applies a weighing factor, which places greater significance on noise events occurring at night (10:00 pm to 7:00 am) than during the day (7:00 am to 10:00 pm).
- **CNEL-Community Noise Equivalent Level.** Similar to L_{dn} but with weighing factors placed on two time periods (evening, 7:00 am to 10:00 pm, and night 10:00 pm to 7:00 am).
- **L_{max}, L_{min}- Maximum, Minimum.** The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.

One of the greatest problems in noise analysis is that of relating noise exposure to health and welfare and determining maximum noise levels for the protection of a community's residents. Although there has been some dispute in the scientific community regarding the detrimental effects of noise, a number of general conclusions have been reached:

- Noise of sufficient intensity has caused irreversible hearing damage.
- Noise has produced physiological changes in humans and animals that in many instances have not resulted in adaptation.
- The effects of noise are cumulative and, therefore, the levels and duration of noise exposure must be taken into account in any overall evaluation. The recognition of this fact has been translated into legislation specifying limits on total permissible noise exposure in industrial settings.

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- Noise can interfere with speech and other communications.
- Noise can be a major source of annoyance by disturbing sleep, rest, and relaxation.

The U.S. Environmental Protection Agency (EPA) has suggested a noise reduction goal of 55 dBA (L_{dn}) in residential areas for the protection of health and welfare. The U.S. Department of Housing and Urban Development's minimum standard of noise in residential areas is 65 dBA (L_{dn}). CNEL or L_{dn} levels can be mapped using contour lines around major noise generators. The contours typically correspond to 5 dBA intervals and the maps include all contours greater than 60 dBA (L_{dn}). The 60 dBA cut-off corresponds to the state requirement that all new housing with exterior noise levels exceeding this level be insulated. As a guideline, interior noise levels should be no louder than 45 dBA (L_{dn}). Since noise reduction provided by a typical house is 12 to 18 dBA, additional insulation is usually required where exterior noise exceeds 60 dBA.

NOISE REDUCTION METHODS

Noise problems have three basic elements: the noise source, a transmission path, and a receiver. The appropriate acoustical treatment for a given project depends on the nature of the noise source and the sensitivity of the receiver. The problem should be defined in terms of appropriate criteria (L_{dn} , L_{eq} , or L_{max}), the location of the sensitive receiver (inside or outside), and when the problem occurs (daytime or nighttime).

Noise control techniques should then be selected to provide an acceptable noise environment for the receiving property while remaining consistent with local aesthetic standards and practical structural and economic limits. Fundamental noise control techniques include the use of setback areas, physical noise barriers, incorporation of site design techniques (including placement and uses of structures), building design, acoustical design of building facades, and placement of site vegetation.

7.2 SETTING

Generally, noise is not a significant problem in the City of Colusa. There are no major noise-generating industries in Colusa, and those industries that do exist are mostly segregated from residential areas, with the notable exceptions of unincorporated areas along Fourteenth Street and along west Main Street. No railroad passes through or near the City; and the noise generated by Colusa County airport traffic does not impact sensitive receptors (e.g., schools, residences) since it is surrounded by land that is largely undeveloped, open space (golf club) or industrial.

The noise exposure contours provided in this Noise Element are taken from the Colusa County Airport Comprehensive Land Use Plan (CLUP), as shown in **Figure 7.1**. These contours do not include areas within the Colusa City limits. Presently, noise exposure contours within the City are established, if needed, through site-specific acoustical analysis. Roadway Vehicle Traffic Noise corridors along SR 20 through town are between 60 dBA and 70 dBA at 18-38 feet (See **Table 7.2**) from the center of the roadway, with the highest recordings being on Market Street when traffic volumes are highest.

The major source of noise in the City is vehicle traffic from the two State highways/routes (SR) that intersect within Colusa: SR 20 and SR 45. SR 20 enters Colusa from the southwest. Once inside the City limits, SR 20 travels north (10th Street), east (Market Street) and south (Bridge Street) before exiting Colusa at its southeastern corner. Approximately seven miles southeast of Colusa, SR 45 merges with SR 20 and subsequently enters Colusa from the southeast,

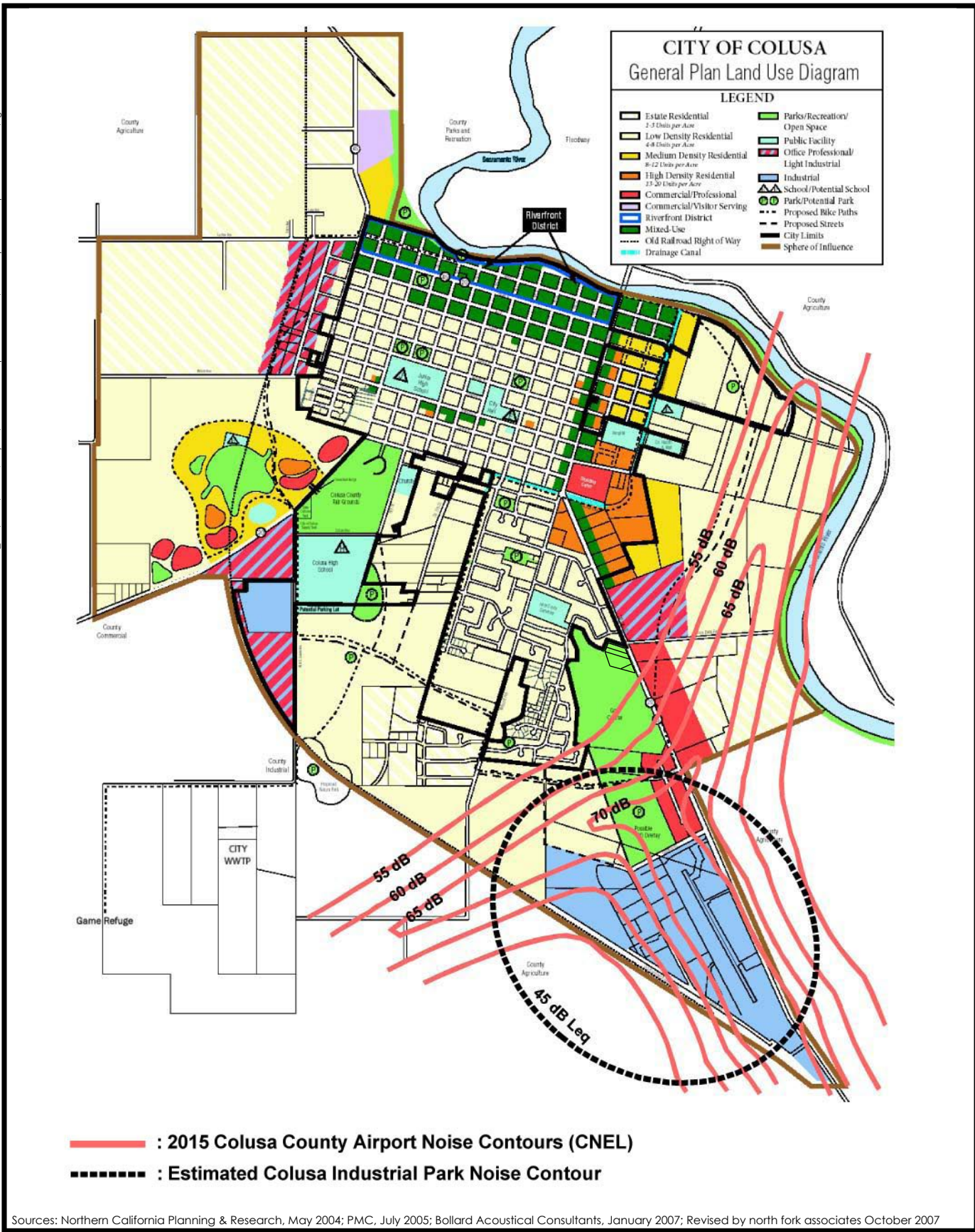


Figure 7.1
NOISE CONTOURS
COLUSA INDUSTRIAL PARK AND COLUSA COUNTY AIRPORT

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traveling north and then west. At the intersection of Market Street and 10th Street, SR 45 separates from SR 20 and continues in a northerly direction. These highways provide enough traffic to cause noise that would potentially exceed EPA and State noise guidelines.

TABLE 7.2
65 DBA DISTANCES FROM CENTER OF ROADWAY

Intersection	Back AADT* Distance In Feet	Ahead AADT* Distance In Feet
SR 20/Fremont	18	27
SR 20/Market	27	34
Market/5 th	34	38
Market/Bridge	38	35
Bridge/Fremont	35	31
SR 20/Moon Bend	31	63**

Source: Cal-Trans Traffic Counts 2002; Data Analysis by NCPDR.

**Back represents traffic counts west of the intersection on SR 20 and south of the intersection on SR 45.*

**Ahead represents traffic counts east of the intersection on SR 20 and north of the intersection on SR 45.*

***Speed increases to 45mph at Moon Bend*

The peak levels of traffic occur on Market and Bridge Streets (an average of 20,500 ADT or 2,375 vehicles per peak hour, as shown in **Table 4.2** of the Circulation Element). At this level of traffic volume and at the slower speeds driven through the town, the level of noise generated from traffic would not exceed the 60-decibel level on a day/night average scale (L_{dn}) (See **Figure 7.1** Noise Contour Map). Peak-hour traffic would occur during daylight hours, and Market Street is lined with mostly commercial uses, which are less noise sensitive than residential uses. The biggest problem is truck noise from this traffic flow. Loud trucks would be especially annoying during the night. In general, the City of Colusa has an invaluable resource—a relatively quiet community.

AIRCRAFT

Aircraft noise affecting the City of Colusa is produced by operations occurring at the Colusa County Airport, located on SR 20 south of the City and within its sphere of influence. It is recognized that the Colusa County Airport is a noise generator by virtue of airport activity, as well as agricultural and airport-related businesses.

The greatest potential for sound intrusion occurs when aircraft land, take off, or run up their engines while on the ground. The sounds associated with general aviation propeller aircraft are produced primarily by the propellers and secondarily from the engine and exhaust.

NON-TRANSPORTATION NOISE SOURCES

Non-transportation noise sources can be characterized as stationary noise sources that may last a period of several hours or be ongoing through a 24-hour period. General descriptions of some of the existing stationary noise sources in the City of Colusa are provided below.

General Service Commercial and Light Industrial Uses

Noise sources associated with service commercial uses such as automotive and truck repair facilities, tire installation centers, car washes, loading docks, corporation yards, etc., are found within relative close proximity to SR 20 and SR 45 within the City limits. The noise emissions of these

types of uses are dependent on many factors and are difficult to quantify precisely. Nonetheless, noise generated by these uses contributes to the ambient noise environment in the immediate vicinity of these uses.

Parks and School Playing Fields

Several recreational parks and school playgrounds are sources of stationary noise within the City. Noise generated by these uses depends on the age and number of people utilizing the respective facilities at a given time and the types of activities in which they are engaged.

School playing-field activities tend to generate more noise than those of neighborhood parks, because the intensity of school playground usage tends to be much higher. At a distance of 100 feet from an elementary school playground being used by 100 students, average and maximum noise levels of 60 and 75 dB, respectively, can be expected. At organized events such as high-school football games with large crowds and public address systems, the noise generation is often significantly higher. As with service commercial uses, the noise generation of parks and school playing fields is variable.

NOISE PERFORMANCE STANDARDS

City of Colusa General Plan 1994

The 1994 General Plan Noise Element's **Table 1** provides the current noise performance standards used to determine compatibility between new and existing land uses. The standards were developed with the guidelines in place at that time, as published by the California Department of Health Services, Office of Noise Control.

The table identifies three separate standards for noise exposure: normally acceptable, conditionally acceptable, and normally unacceptable. Maximum exposure levels for residential interiors are 45 dBA L_{dn} ; maximum exposure levels for public/quasi-public uses range from 45 to 55 dBA L_{dn} ; maximum levels for commercial uses range from 50 to 65 dBA L_{dn} ; and maximum levels for light industrial and industrial uses range from 55 to 70 dBA L_{dn} .

Table 1 must be updated based on changes in State noise regulations and building code requirements over the last 12 years and to reflect a wider range of land use types as proposed with the General Plan update. In *Section 7.3 Outlook* that follows, this element provides an updated and expanded range of noise performance standards, as shown in **Table 7.3** and **Table 7.4**.

Colusa County Airport Comprehensive Land Use Plan

The Comprehensive Land Use Plan (CLUP) prepared by the Colusa County Airport Land Use Commission (ALUC) in 1995 sets forth the noise criteria that the ALUC uses to evaluate proposed land use plans and development in the vicinity of the Colusa County Airport. The noise evaluation criteria determine airport/land use noise compatibility to protect the public from the adverse effects of aircraft noise. The criteria consider future Community Noise Equivalent Level (CNEL) contours as established by the State of California Code of Regulations (CCR) Title 21, Subchapter 6. The criteria established by the code for airports with four-engine turbojet or turbofan aircraft and 25,000 annual operations is 65 dB CNEL.

While the CLUP defines residential uses incompatible in areas at or above 55 dB CNEL, it does not indicate where this noise contour line exists within the City. However, the 2015 Noise

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Exposure Map produced by the Colusa County Airport establishes a 55 dB CNEL noise contour. The southern portion of the City Planning Area, which includes residential land use designations, is within the airport 55 dB CNEL noise contour. **Figure 7.1** identifies the Colusa County Airport noise contours as they relate to the City. These contours represent an average of all noise levels expected during a normal 24-hour day, adjusted to an equivalent level that accounts for the greater intrusiveness of evening and nighttime noise.

The CLUP contains a comprehensive set of policies and implementing actions that govern future land uses to ensure compatible uses with airport noise levels. The City must follow these policies when considering land use applications around the airport.

For land uses within the noise contour of the state-mandated criterion of 65 dB CNEL, the following land uses are incompatible:

- Single-family dwellings
- Multi-family dwellings
- Mobile home parks
- Schools of standard construction

The state has established noise reduction requirements for new hotels, motels, apartments, and other dwelling units, except single-family dwellings, in CCR Title 25, Section 28. The code establishes a standard that limits noise to 45 dB CNEL, with windows closed, in any habitable room in affected dwellings. For residential dwellings, other than single-family detached, in areas having an airport showing CNEL greater than 60 dB, the code requires an acoustical study showing that the structure has been designed to meet the interior standard of 45 dB CNEL. In addition to the acoustical standards contained within the adopted CLUP, future development within the Airport Influence Area, as defined by the California Civil Code, will require disclosure and proximity statements regardless of any formal requirements for noise mitigation.

7.3 OUTLOOK

As development activity continues to move closer to the airport facility, noise mitigation and airport influence area notice requirements may need to be implemented to comply with the adopted CLUP and California Civil Code. The main source of noise in Colusa, however, will continue to be traffic on SR 20 and SR 45. While land uses along these highways are varied in the Planning Area, nearly the entire SR 20 corridor and some of the SR 20/45 corridor leading into the City are developed. As a result, some noise impacts will be unavoidable. Future development along these routes will consider noise increases generated by vehicle traffic associated with the new projects.

Even with the future development anticipated in the City, ambient noise levels are not expected to drastically increase. The City's noise standards, which are incorporated into Policies N-1.1 and N-1.2 of this Element, are intended to mitigate future noise increases in all sensitive areas of the City.

As the City continues to grow, development in the southern portion of the Planning Area could intrude into the Colusa County Airport 55 dB CNEL noise contour. While a majority of this area has land use designations that are compatible to guidelines established by the CLUP, residential

uses are not. Therefore, land use decisions in the City's Planning Area must consider the CLUP land use compatibility guidelines for areas in the 55 dB and above noise contours.

NOISE PERFORMANCE STANDARDS UNDER THE GENERAL PLAN UPDATE

Colusa's exterior noise standards for new uses affected by traffic and airport noise under this General Plan update range from 60 to 70 dBA L_{dn} . **Table 7.3** outlines standards for various land uses. These noise standards are consistent with those recommended by the State Office of Noise Control and are most appropriately applied to land uses adjacent to continuous noise sources, such as roadway traffic noise.

TABLE 7.3
NOISE STANDARDS FOR NEW USES AFFECTED BY TRAFFIC AND AIRPORT NOISE

New Land Use	Outdoor Activity Area - L_{dn}	Interior - L_{dn} /Peak Hour L_{eq} ¹	Notes
All residential	60-65	45	2, 3, 4, 8
Transient lodging	65	45	5
Hospitals and nursing homes	60	45	6
Theaters and auditoriums	---	35	
Churches, meeting halls, schools, and libraries	60	40	
Office buildings	65	45	7
Commercial buildings	65	50	7
Playgrounds and parks	70	---	
Industry	65	50	7

Notes:

1. For traffic noise in the City of Colusa, L_{dn} and peak-hour L_{eq} values are estimated to be approximately similar. Interior noise level standards are applied in noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
2. Outdoor activity areas for single-family residential uses are defined as back yards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.
3. For multi-family residential uses, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas, or tennis courts. Where such areas are not provided in multi-family residential uses, the standards shall be applied at individual patios and balconies of the development.
4. Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} may be allowed—provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.
5. Outdoor activity areas of transient lodging facilities include swimming pool and picnic areas.
6. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
7. Only the exterior spaces of these uses designated for employee or customer relaxation are considered sensitive.

Standards based on 24-hour weighting are not adequate to address certain noise sources, particularly industrial noise sources, which occur infrequently but at a potentially higher intensity. Colusa's exterior noise standards for new uses affected by non-transportation (stationary) noise sources under the General Plan update range from 50 to 65 dBA L_{eq} . **Table 7.4** contains the noise standards for new uses affected by stationary noise sources.

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**TABLE 7.4
NOISE STANDARDS FOR NEW USES AFFECTED BY NON-TRANSPORTATION NOISE**

New Land Use	Outdoor Activity Area – L _{eq}		Interior - L _{eq}	Notes
	Daytime	Night-Time	Day & Night	
All Residential	50	45	35	1, 2, 7
Transient Lodging	55	---	40	3
Hospitals & Nursing Homes	50	45	35	4
Theaters & Auditoriums	---	---	35	
Churches, Meeting Halls, Schools, Libraries, etc.	55	---	40	
Office Buildings	55	---	45	5, 6
Commercial Buildings	55	---	45	5, 6
Playgrounds, Parks, etc.	65	---	---	6
Light Industry	65	65	50	5

Notes:

1. Outdoor activity areas for single-family residential uses are defined as backyards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.
2. For multi-family residential uses, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas or tennis courts. Where such areas are not provided, the standards shall be applied at individual patios and balconies of the development.
3. Outdoor activity areas of transient lodging facilities include swimming pool and picnic areas, and are not commonly used during nighttime hours.
4. Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
5. Only the exterior spaces of these uses designated for employee or customer relaxation have any degree of sensitivity to noise.
6. The outdoor activity areas of office, commercial, and park uses are not typically utilized during nighttime hours.
7. It may not be possible to achieve compliance with this standard at residential uses located immediately adjacent to loading dock areas of commercial uses while trucks are unloading. The daytime and nighttime noise level standards applicable to loading docks shall be 55 and 50 dB L_{eq}, respectively.
8. General: The Table 7.2 standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds.
9. If the existing ambient noise level exceeds the standards of Table 7.4, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.

NOISE ANALYSIS REQUIREMENTS

During initial review of development proposals, it may be determined that noise levels have the potential to exceed City noise standards if the project were implemented. In such cases, the City will require that a noise analysis be prepared to further evaluate the extent to which mitigation would be required if the project were approved. This measure includes projects proposed within the CLUP noise contours shown in **Figure 7.1**. **Table 7.5** outlines the City's requirements for the preparation of a noise analysis. These analyses will be the responsibility of the project applicant.

**TABLE 7.5
REQUIREMENTS FOR ACOUSTICAL ANALYSIS**

<p>An acoustical analysis prepared pursuant to the Noise Element shall:</p> <ol style="list-style-type: none"> 1. Be the responsibility of the applicant. 2. Be prepared by qualified professionals experienced in the fields of environmental noise assessment. 3. Carry out a scope of work that has been previously approved by City Planning and Engineering staff. 4. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions. 5. Estimate existing and projected (cumulative) noise levels according to the standards provided in Table 7.3 and Table 7.4 and assess these noise levels' consistency with the adopted policies of the Noise Element. 6. Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms and evaluate possible sleep disturbance. 7. Estimate interior and exterior noise exposure after the prescribed mitigation has been implemented. 8. Provide a post-project assessment program that could be used to evaluate the effectiveness of the proposed mitigation.
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7.4 GOALS, POLICIES, AND IMPLEMENTING ACTIONS

MOBILE AND STATIONARY NOISE SOURCES

Goal N – 1:

To protect noise-sensitive land uses from new noise-generating uses that would be incompatible with such sensitive receptors.

Policy N-1.1:

The City shall implement the noise standards in **Table 7.3** above for new uses affected by traffic and airport (mobile) noise and in **Table 7.4** above for new uses affected by non-transportation (stationary) noise sources.

Implementing Action N – 1.1.a: Development Review

The City will implement its development review process in accordance with the requirements contained in documents such as, but not limited to, the City of Colusa Zoning Ordinance, the Uniform Building Code (UBC), State Noise Insulation Standards (Title 24), Specific Plans, the City's design guidelines, the California Environmental Quality Act (CEQA), and Colusa County environmental health regulations.

Because noise considerations are an integral part of the community planning and design process, the City will require noise information from the project applicant to adequately evaluate the effects of project noise on the community. Conditions of approval will be

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developed, along with environmental mitigation measures, to ensure that the goals and policies of this Noise Element are met. For projects that are subject to design review, this process will be used to determine ways in which project design may reduce noise to acceptable levels: site planning, traffic planning, architectural layout, construction modifications, landscaped berms and, as a last resort, sound wall barriers.

Implementing Action N – 1.1.b: Noise Performance Standards

The noise performance standards shown in **Table 7.3** and **Table 7.4** of this Noise Element will be adopted with the General Plan update. The City will apply these standards to the review of new development of noise-sensitive uses exposed to existing fixed noise sources. These standards will also be used to evaluate the potential impacts of proposed new fixed noise sources in proximity to existing noise-sensitive land uses. Where a noise sensitive land use is proposed near a fixed noise source, such as an industrial facility or the airport, noise measurements will be performed to determine whether existing and/or future noise levels from that source will exceed the City's noise performance standards at the property line of the proposed use. Similarly, where a fixed noise-producing use such as an industrial facility, is proposed near an existing or future noise sensitive use, a noise analysis will be prepared to ensure that the noise produced by the proposed project will not exceed the City's noise performance standards at the property line of the noise sensitive use. The acoustical analysis will be the responsibility of the project applicant and follow the guidelines in **Table 7.5**.

Implementing Action N – 1.1.c: Noise Level Contour Map

The noise level contour map shown in **Figure 7.1** of this Noise Element will be adopted with the General Plan update. To evaluate the potential for noise conflicts associated with new developments and projects in the City limits around the airport, the City will refer to this contour map. The map shows generalized locations of noise contours associated with the various noise sources. The contour map can be used as a tool to evaluate the potential for exposure of a noise-sensitive land use to noise levels that may exceed the City's noise standards. Because topography, vegetation, or intervening structures may significantly affect noise exposures at a particular location, the noise contours should be considered generalized and not site-specific.

Implementing Action N – 1.1.d: Airport Comprehensive Land Use Plan

The City will ensure that projects located within the Area of Influence of the Colusa County Airport are routed to the Airport Land Use Commission for review and comment.

Implementing Action N – 1.1.e: Ordinance and Regulations Review and Update

The City will review and update its zoning ordinance, subdivision ordinance, environmental review ordinance (new), and development and site plan review processes to ensure compliance with the goals, policies, and standards contained in the Airport Comprehensive Land Use Plan and California Civil Code.

Policy N-1.2:

The City shall require appropriate noise attenuation measures to be included in the project design for proposed noise-sensitive uses in proximity to existing noise-producing uses, as needed, and project design shall be in compliance with the noise standards in **Table 7.3** and **Table 7.4**.

Implementing Action N – 1.2.a: Ordinance and Regulations Review and Update

The City will review and update its zoning ordinance, subdivision ordinance, environmental review ordinance (new), and development and site plan review processes to ensure compliance with the goals, policies, and standards contained in the Noise Element. The updates will reference noise standards contained in this General Plan and will be administered as part of the regular planning, zoning, and building permit application processes. The applicant will be responsible for preparing a noise analysis and ensuring project compliance with the standards.

Implementing Action N – 1.2.b: Development Review (see Implementing Action N-1.1.a above).

Implementing Action N – 1.2.c: Noise Performance Standards (see Implementing Action N – 1.1.b above).

Implementing Action N – 1.2.d: Noise Level Contour Map (see Implementing Action N – 1.1.c above).

Implementing Action N – 1.2.e: Airport Comprehensive Land Use Plan (see Implementing Action N – 1.1.d).

Policy N-1.3:

Where noise attenuation is required to meet the standards of this Element, an emphasis shall be placed on site planning and project design, including, but not limited to, building orientation, setbacks, landscaping, and building construction practices.

Implementing Action N – 1.3.a: Development Review (see Implementing Action N-1.1.a above).

Policy N-1.4:

The use of sound walls shall be considered as a last resort to achieve the noise standards, after other practical design-related noise mitigation measures have been fully integrated into the project.

Implementing Action N – 1.4.a: Development Review (see Implementing Action N-1.1.a above).

Policy N-1.5:

The City shall require any necessary noise analyses to assess compliance with the City's Noise Element standard and Environmental Review Ordinance. Noise analyses shall be prepared in accordance with the requirements in **Table 7.5**.

Implementing Action N – 1.5.a: Ordinance and Regulations Review and Update (see Implementing Action N – 1.2.a above).

Implementing Action N – 1.5.b: Development Review (see Implementing Action N-1.1.a above).

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Implementing Action N – 1.5.c: Noise Performance Standards (see Implementing Action N – 1.1.b above).

Implementing Action N – 1.5.d: Noise Level Contour Map (see Implementing Action N – 1.1.c above).

Policy N-1.6:

The City shall apply the noise standards in **Table 7.3** and **Table 7.4** to both new noise-sensitive land uses and new noise-generating land uses, with the responsibility for noise mitigation placed on the new use.

Implementing Action N – 1.6.a: Ordinance and Regulations Review and Update (see Implementing Action N – 1.2.a above).

Implementing Action N – 1.6.b: Development Review (see Implementing Action N-1.1.a above).

Policy N-1.7:

The City shall exempt emergency vehicles from provisions of the General Plan noise standards.

Implementing Action N – 1.7.a: Ordinance and Regulations Review and Update (see Implementing Action N – 1.2.a above).

Policy N-1.8:

The City shall protect Colusa residents from noise related to the Colusa County Airport operations.

Implementing Action N – 1.8.a: Development Review (see Implementing Action N-1.1.a above).

Implementing Action N – 1.8.b: Noise Performance Standards (see Implementing Action N – 1.1.b above).

Implementing Action N – 1.8.c: Noise Level Contour Map (see Implementing Action N – 1.1.c above).

Implementing Action N – 1.8.d: Airport Comprehensive Land Use Plan (see Implementing Action N – 1.1.d).

CONSTRUCTION NOISE

Goal N – 2:

To minimize noise generated by construction activities.

Policy N-2.1:

The City shall regulate and control noise associated with construction activities to reduce impacts on nearby sensitive receptors.

Implementing Action N – 2.1.a: Ordinance and Regulations Review and Update

The City will update its Noise Ordinance to include provisions that are specific to temporary construction noise. These include, but are not limited to the following:

- Construction activities will be limited to the hours stipulated in Chapter 11A Noise Regulations of the City of Colusa City Code.
- All internal combustion engines used in conjunction with construction and landscaping will be muffled according to the equipment manufacturer's requirements.

Implementing Action N – 2.1.b: Development Review (see Implementing Action N-1.1.b above).

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