
City of El Paso de Robles General Plan 2003

Noise Element

Prepared for:

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Adopted December 16, 2003



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NOISE ELEMENT

1.0 Goals, Policies, And Action Items

The goal of the Noise Element is to protect City residents from unacceptable exposure to noise, including noise from the following sources: airport operations, vehicular traffic, rail operations, industrial uses, and other point sources.

GOAL N-1: Minimize exposure to noise and generation of noise.

POLICY N-1A: Noise Minimization. New development shall be designed to comply with the maximum, allowable Noise Exposures of 65 dB CNEL for outdoor activities (except for parks); and 45 dB CNEL for indoor activities.

Noise measurement (dB L_{dn} or CNEL) is calculated using a daily average that takes into account the time of day the noise occurs. Sounds occurring at night are weighted more heavily.

Action Item 1. Revise/update the noise performance standards as needed to be consistent with the Noise Element's Goals, policies, and standards.

Action Item 2. The City will periodically review and update the Noise Element to ensure that noise exposure information and specific policies are consistent with changing conditions within the City and with noise control regulations or policies enacted after the adoption of this element.

Action Item 3. The City shall make the Acoustical Design Manual available to the public so that they can incorporate noise reduction measures into private projects consistent with the goals and policies of this Noise Element.

Action Item 4. Incorporate appropriate noise attenuation features in the design of all new arterial streets.

Action Item 5. Where feasible, require installation of noise barriers along arterial rights-of-way. To be effective, such barriers should have a solid continuous surface without any holes; it should be relatively tall enough to shield, or hide, the entire roadway when viewed from the nearest side of development.

Action Item 6. Develop procedures to finance and facilitate construction of sound walls and other noise mitigation measures where the City Council determines they are needed along corridors.

Action Item 7. When mitigation must be applied to satisfy City noise standards, the following priorities for mitigation shall be observed, where feasible:

First: Use of setbacks and/or open space separation;

Second: Site layout/orientation/shielding of noise-sensitive uses with non-noise-sensitive uses;

Third: Structural measures: acoustical treatment of buildings and noise barriers constructed of concrete, wood or materials other than earth;

Fourth: Construction of earthen berms or soundwalls.

Action Item 8. For new development of residential units mitigation shall proceed as described in Table N-6 as included in the Noise Element Technical Appendix. Where an acoustical analysis prepared by a noise expert is called for, the report of said analysis should be submitted prior to approval of a subdivision map, parcel map, conditional use permit, or development plan for apartments, so that decision makers can determine if Noise Element policies and standards are being properly implemented.

Action Item 9. For new development of residential units where outdoor activity areas of a site are impacted with noise exceeding 65 dbA, the Development Review Committee may require installation of effective noise barriers.

Action Item 10. For new development of residential units where mitigation measures are necessary to reduce interior noise levels to 45 dBA, the Building Official shall require incorporation of those measures listed in the Acoustic Design Manual (Volume III) for the appropriate amount of noise reduction.

Action Item 11. For non-residential noise-sensitive uses, mitigation may proceed in a manner similar to that described in Table N-6 as included in the Noise Element Technical Appendix. Where an acoustical analysis prepared by a noise expert is called for, the report of said analysis should be submitted prior to approval of a subdivision map, parcel map, conditional use permit, or development plan so that decision makers can determine if Noise Element policies and standards are being properly implemented.

Action Item 12. If the Community Development Director or his/her designee determines, from substantial evidence based on analysis, that a proposed new noise-sensitive land use may be exposed to noise levels that exceed City noise standards, notwithstanding the noise contour information in this Noise Element, an acoustical analysis meeting the requirements in Table N-7 of the Noise Element Appendix may be required.

Action Item 13. Permit new development only where the noise level due to existing stationary noise sources will not exceed the noise level standards of Table N-5 or where noise mitigation measures have been incorporated into the design of the development to reduce noise exposure to or below the levels specified in Table N-5.

Action Item 14. Where a new stationary noise source is proposed to be developed or an existing stationary noise source is proposed to be expanded, mitigation of noise levels that exceed those listed in Table N-5 shall be required. This program does not apply to noise levels associated with agricultural operations.

Action Item 15. The City shall develop and employ procedures to ensure that noise mitigation measures required pursuant to an acoustical analysis or as specified in the

Noise Element are implemented in the development review and building permit processes.

Action Item 16. Wherever feasible, maintain open space to provide attenuation zones between noise sources and receivers.

Action Item 17. The following measures shall be incorporated into contract specifications to reduce the impact of construction noise.

- All construction equipment shall have properly maintained sound-control devices. No equipment shall have an unmuffled exhaust.
- Contractors shall implement appropriate additional noise mitigation measures including, but not limited to, changing the location of stationary construction equipment, shutting off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, or installing acoustic barriers around stationary construction noise sources.

POLICY N-1B: Airport Noise. Minimize exposure to airport noise through implementation of the Airport Land Use Plan noise policies and programs.

Action Item 1. Implement the provisions of the Airport Land Use Plan.

Action Item 2. Within areas impacted by noise from aircraft operations, which includes all land subject to the adopted Airport Land Use Plan, aviation easements shall be required whenever feasible.

2.0 Quantification of Noise Environment

Figure N-1 presents the California Department of Health, Office of Noise Control, noise compatibility guidelines for various land uses. The compatibility table illustrates the ranges of community noise exposure in terms of what is “normally acceptable,” “conditionally acceptable,” “normally unacceptable,” and “clearly unacceptable.” For the most sensitive uses such as single family residential, 60 dBA Ldn or CNEL is the maximum normally acceptable exterior level and 70 dBA Ldn or CNEL is the conditionally acceptable range. These guidelines are included in the City of Paso Robles Noise Element and are used to assess whether or not transportation noise can potentially pose a conflict with land development.

By adopting this Noise Element, the City sets its own transportation source noise standards for outdoor activity areas and interior spaces. The maximum allowable noise exposure for outdoor activity is 65 dBA Ldn and 45 dBA Ldn in interior spaces for residential, hotel and motel, hospital and nursing home, theater, auditorium, meeting hall, office building, school, and library uses. The exterior standard is comparable to the 65 dBA L_{eq} , which is used by the California Department of Transportation (CalTrans) and the Federal Highway Administration.

A discussion of noise measurement is included in the Noise Element Appendix as well as strategies for noise attenuation and mitigation.

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE						
	Ldn or CNEL, dBA						
	55	60	65	70	75	80	85
RESIDENTIAL - LOW DENSITY SINGLE FAMILY, DUPLEX, MOBILE HOMES							
RESIDENTIAL - MULTI-FAMILY							
TRANSIENT LODGING - MOTELS, HOTELS							
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES							
AUDITORIUMS, CONCERT HALLS, AMPHITHEATRES							
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS							
PLAYGROUNDS, NEIGHBORHOOD PARKS							
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETERIES							
OFFICE BUILDINGS, BUSINESS COMMERCIAL AND PROFESSIONAL							
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.

 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

 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. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

 CLEARLY UNACCEPTABLE
 New construction or development should generally not be undertaken.

Source: Guidelines for the Preparation and Content of Noise Elements of the General Plan, California Office of Planning and Research, 1998.

Sensitive Receptors

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Residences, hospitals, schools, guest lodging, libraries, and parks are most sensitive to noise intrusion and therefore have more stringent noise exposure targets than manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance. Noise sensitive residential areas are located throughout the community.

Sources of Noise in the Paso Robles Planning Area

Roadway Noise

Roadway traffic is the primary source of noise in the City and Planning Area. Highway 101 and State Route (SR) 46 carry by far the most traffic through the area, and are consequently the major noise contributors. The existing (2003) 65 dBA Ldn contour from Highway 101 ranges from 264 to 494 feet from centerline, while the existing 65 dBA Ldn contour from SR 46 East ranges from 166 to 202 feet from centerline. Table N-1 shows data relative to the existing roadway traffic noise for major streets and highways expressed as the distance to CNEL contour from centerline of the roadway. These contours are expressed graphically in Figure N-2.

The only other roadways in the City and Planning Area that currently carry sufficient traffic to produce audible noise at a substantial distance include: 24th Street, 13th Street, Airport Road, Buena Vista Drive, Charolais Road, Creston Road, Golden Hill Road, Nacimiento Lake Drive, Niblick Road, Sherwood Road, South River Road, Spring Street and Union Road. The existing 60 dBA Ldn contour for these roads typically ranges from 50 to 160 feet, and less where there are intervening structures, vegetation and/or topography. Airport Road, Buena Vista Drive, Charolais Road, Dry Creek Road, Linne Road, Nickerson Drive, North River Road, Pine Street, Rolling Hills Road, Ramada Drive, Rambouillet Road, Theater Drive, and Vine Street carry moderate traffic (1,000-5,000 ADT), but not sufficient to produce far-reaching noise contours. The noise model predicts that the 60 dBA Ldn contour would be less than 100 feet from the center of those roadways under existing and future conditions.

Table N-2 illustrates the roadway noise increases that are anticipated to occur as a result of General Plan buildout to the year 2025. Future noise contours for Highway 101, SR 46 East, and the railroad in the City of Paso Robles are shown in Figure N-3.

The future (year 2025) 60 dBA Ldn contour from Highway 101 ranges from 842 to 1,418 feet from centerline, while the future 60 dBA Ldn contour from Highway 46 East ranges from 485 to 634 feet from centerline. However, these distances are likely less than modeled, because of attenuation effects of topography, vegetation, and structures.

Highway 101. As shown in Table N-2 and Figure N-3, noise levels at the exterior of existing, unobstructed (i.e., without sound walls or other intervening structures, vegetation, or topography) residences near the Highway 101 would be expected to

Table N-1. Existing (2003) Traffic Noise Levels

Roadway Segment	Traffic (ADT)	Distance to CNEL Contour from Centerline (feet)		
		70 dB	65 dB	60 dB
Highway 101				
South City Limits to Highway 46 West	41,000	212	457	985
Highway 46 West to Spring Street South	46,000	229	494	1,064
Spring Street South to 13 th Street	31,000	176	379	818
13 th Street to Highway 46 East	27,000	161	346	746
Highway 46 East to Spring Street North	20,300	133	286	617
Spring Street North to North City Limits	19,500	123	264	569
Highway 46 East				
Highway 101 to Union Road	20,000	94	202	434
Union Road to Airport Road	18,000	87	188	405
Airport Road to Dry Creek Road/Jardine Road	15,000	77	166	359
City Roadways				
24 th Street (Spring Street to Highway 101)	15,570	RW	54	117
13 th Street (Spring Street to Riverside Avenue)	9,500	RW	34	84
13 th Street (Riverside Avenue to South River Road)	15,820	RW	55	118
Airport Road (Highway 46 East to Dry Creek Road)	4,400	RW	49	106
Charolais Road (South River Road to Rambouillet Road)	3,710	RW	41	95
Charolais Road (Rambouillet Road to Creston Road)	2,060	RW	RW	64
Creston Road (South River Road to Golden Hill Road)	14,830	25	69	148
Creston Road (Golden Hill Road to Niblick Road)	13,320	RW	64	137
Creston Road (Niblick Road to Charolais Road)	8,680	RW	47	103
Creston Road (Charolais Road to East City Limits)	2,990	RW	RW	51
Golden Hill Road (Creston Road to Rolling Hills Road)	6,790	RW	66	142
Golden Hill Road (Rolling Hills Road to Union Road)	7,800	27	72	155
Golden Hill Road (Union Road to Highway 46 East)	6,800	RW	66	142
Nacimiento Lake Drive (West City Limits to 24 th Street)	5,680	RW	45	100
Niblick Road (Spring Street to South River Road)	19,710	34	83	179
Niblick Road (South River Road to Melody Drive)	16,210	28	73	157
Niblick Road (Melody Drive to Creston Road)	16,210	28	73	157
Sherwood Road (Creston Road to Fontana Road)	6,680	RW	36	87
South River Road (South City Limits to Charolais Road)	2,940	RW	RW	64
South River Road (Charolais Road to Niblick Road)	8,610	RW	61	132
South River Road (Niblick Road to Navajo Road)	5,900	RW	46	103
South River Road (Navajo Road to Creston Road)	5,900	RW	46	103
Spring Street (1 st Street to 13 th Street)	15,800	27	71	154
Spring Street (13 th Street to 24 th Street)	15,430	26	70	152
Spring Street (24 th Street to 36 th Street)	11,150	RW	57	122
Union Road (North River Road to Walnut Drive)	4,330	RW	RW	65
Union Road (Walnut Drive to Golden Hill Road)	2,930	RW	RW	50
Union Road (Golden Hill Road to Highway 46 East)	5,600	RW	30	77
Union Road (Highway 46 East to Experimental Station Road)	1,710	RW	RW	29
Buena Vista Dr. (Highway 46 East to Experimental Station Road)	3,220	RW	36	86
Buena Vista Dr. (Experimental Station Road to North City Limits)	3,000	RW	33	82

RW: Noise contour falls within roadway right-of-way.

Source: Traffic volumes from Omni-Means (July 2003).

Table N-2. Future (2025) Traffic Noise Levels

Roadway Segment	Traffic (ADT)	Distance to CNEL Contour from Centerline (feet)		
		70 dB	65 dB	60 dB
Highway 101				
South City Limits to Highway 46 West	70,800	305	658	1418
Highway 46 West to Spring Street South	61,800	279	601	1295
Spring Street South to 13 th Street	38,200	226	487	1,048
13 th Street to Highway 46 East	47,100	233	502	1081
Highway 46 East to Spring Street North	34,700	190	409	881
Spring Street North to North City Limits	32,400	181	391	842
Highway 46 East				
Highway 101 to Union Road	35,300	137	294	634
Union Road to Airport Road	33,900	133	287	617
Airport Road to Dry Creek Road/Jardine Road	23,600	104	225	485
City Roadways				
24 th Street (Spring Street to Highway 101)	17,500	RW	59	126
Airport Road (S.R. 46 East to Dry Creek Road)	9,800	34	84	181
Airport Road (Union Road to S.R. 46 East)	28,200	79	170	366
Airport Road (Linne Road to Union Road)	20,200	63	136	293
Charolais Road (South River Road to Rambouillet Road)	7,400	26	70	150
Charolais Road (Rambouillet Road to Creston Road)	3,500	RW	39	91
13 th Street (Spring Street to Riverside Avenue)	22,400	26	69	149
13 th Street (Riverside Avenue to South River Road)	28,000	32	80	173
Creston Road (South River Road to Golden Hill Road)	15,200	26	70	150
Creston Road (Golden Hill Road to Niblick Road)	22,900	39	92	197
Creston Road (Niblick Road to Charolais Road)	10,600	RW	55	118
Creston Road (Charolais Road to East City Limits)	5,000	RW	27	72
Golden Hill Road (Creston Road to Rolling Hills Road)	6,900	RW	66	143
Golden Hill Road (Rolling Hills Road to Union Road)	6,400	RW	63	136
Golden Hill Road (Union Road to Highway 46 East)	9,900	35	84	182
Nacimiento Lake Drive (West City Limits to 24 th Street)	11,000	27	72	155
Niblick Road (Spring Street to South River Road)	25,300	43	98	211
Niblick Road (South River Road to Rambouillet Road)	27,600	47	104	223
Niblick Road (Rambouillet Road to Creston Road)	27,000	46	102	220
Sherwood Road (Creston Road to Fontana Road)	20,600	35	85	184
South River Road (South City Limits to Charolais Road)	4,900	RW	39	91
South River Road (Charolais Road to Niblick Road)	18,500	46	102	220
South River Road (Niblick Road to Navajo Road)	10,200	RW	61	131
South River Road (Navajo Road to Creston Road)	8,600	RW	64	138
Spring Street (1 st Street to 13 th Street)	17,300	30	76	164
Spring Street (13 th Street to 24 th Street)	23,200	40	92	199
Spring Street (24 th Street to 36 th Street)	14,400	RW	67	145
Union Road (North River Road to Walnut Drive)	5,100	RW	28	72
Union Road (Walnut Drive to Golden Hill Road)	3,000	RW	RW	51
Union Road (Golden Hill Road to Highway 46 East)	4,000	RW	RW	62
Union Road (Highway 46 East to East City Limits)	5,700	RW	31	78
Buena Vista Dr. (Highway 46 East to Experimental Station Road)	14,200	50	107	231
Buena Vista Dr. (Experimental Station Road to North City Limits)	8,800	31	78	168

RW: Noise contour falls within roadway right-of-way.

Source: *Traffic volumes from Omni-Means (July 2003).*

experience noise levels in excess of 65 dBA Ldn. These levels are beyond the normally acceptable and conditionally acceptable exterior noise levels for residential land uses.

Development associated with full buildout of the General Plan would result in the 65 dBA contour extending outward from the centerline of the freeway in the range of between 391 and 658 feet a difference of 127 to 164 feet beyond the existing 65 dBA contour.

At buildout, noise levels exceeding 65 dBA Ldn would be experienced within 601 feet of the centerline of Highway 101 in the segment north of SR 46 West, assuming no attenuation for topography, vegetation, or physical barriers, such as walls, berms or buildings. Future residential development located in the vicinity of the highway would be exposed to interior and exterior noise levels that exceed City standards.

State Route 46 East. ADT volumes would also increase along SR 46 East as a result of General Plan buildout. The existing 65 dBA contour for this corridor lies between 166 and 202 feet from the roadway centerline.

Currently, there are limited residential uses located adjacent to SR 46 East between Highway 101 and Dry Creek Road. Some of the uses, particularly in the portion west of Buena Vista Drive, are shielded from roadway noise by the road cut within which the highway is constructed east of the Salinas River. This topographic feature attenuates exterior noise levels to adjacent land uses along this segment.

City Arterials. A total of 34 arterial roadway segments were modeled based on existing and future trip projections. Of these, only two are predicted to generate a 65 dBA noise contour entirely within the right of way. The result is that the expected traffic on 32 roadway segments projects this noise level onto adjacent property. To the extent that these are noise-sensitive land uses, these land uses may experience noise levels exceeding City standards.

In all cases, projected trip increases as a result of General Plan Update buildout would result in the extension of the 65 dBA contour outward for the 2025 modeled year. Therefore, noise levels can be expected to increase along all of the City's arterial roadways.

Railroad Operations

The Union Pacific Railroad (UPRR) operates one rail line through the City. The UPRR corridor runs in a generally north-south direction through the City, on the east side of Highway 101 from the southern City boundary north to approximately the northbound Highway 101 Spring Street exit, and on the west side of Highway 101 from the northbound Spring Street exit to the southbound Highway 101 Spring Street exit, where it crosses back to the east side of Highway 101 to the northern City boundary.

UPRR officials could not release the precise number of daily trains that travel through the City, but it is estimated that about four freight and two passenger trains is typical. One of the freight trains generally passes through the Planning Area at night, between the hours of 10:00 PM and 7:00 AM.

It is anticipated that freight and passenger train use could expand during the planning horizon timeframe. The use of the corridor for rail traffic causes high noise levels intermittently as trains pass through the City. In addition, warning whistles from trains and warning arms at at-

grade street crossings cause a degree of nuisance noise unique to rail activity. Freight trains can be louder than passenger trains because they typically use more engines and are longer. At this time it is not known how many trains would be operating on the UPRR corridor in the future.

A variety of railroad operating conditions occur in the planning area due to the presence of grade crossings, curves, grades, and congested areas. For this reason, speeds and the use of the warning horn vary considerably from location to location.

Noise measurements were conducted on this rail line to determine the contribution of freight and passenger rail operations to the noise environment. The goal of the noise measurements was to determine the typical sound exposure levels (SEL), accounting for travel speed, warning horns, locomotive noise, and other factors contributing to noise generation. The average SEL for the observed freight trains was 98-101 dB at a distance of 100 feet from the track centerline; for the passenger trains, the average SEL was 93-104 dB. Based on this information, the calculated existing noise contour distances from each rail line are shown in Table N-3. At approximately 50 feet from the tracks, SEL values were approximately 110 dB for freight trains and 87-106 dB for passenger trains.

Table N-3. Existing (2003) Approximate Distance to Railroad Noise Contours

Train Source	Ldn, at 100 feet	Distance to Ldn contour (feet)		
		70	65	60
Union Pacific (freight)	61.6	-	-	-
Amtrak (passenger)	59.9	-	-	-
Combined Ldn	61.6	28	59	128

To determine the distance to noise contours, it is necessary to calculate the Ldn for typical rail operations. This is accomplished by using the recorded SEL values and the known number of trains. The Ldn may be calculated as follows:

$$Ldn = SEL + 10\log N - 49.4 \text{ dB, where}$$

- SEL is the mean SEL of the event,
- N is the sum of the number of day and evening trains per day plus 10 times the number of nighttime (10:00 PM to 7:00 AM) trains per day, and
- 49.4 is ten times the logarithm of the number of seconds per day.

Operational data for future conditions was estimated to include eight freight trains and four passenger trains per day. It was estimated that 50% of the freight trains and one of the passenger trains would pass through the planning area during nighttime hours. This would be considered a worst-case estimate of future railroad operations. Based on this information, the calculated noise contour distances from each rail line are shown in Table N-4. The mean SEL values at 100 feet used for the calculations for areas away from grade crossings and horn usage were 94.5 dB for passenger trains and 99.7 dB for freight trains. For areas within 1,000 feet of grade crossings where horns are likely to be used, mean SEL values used for calculations were 100.4 dB for passenger trains and 101.7 dB for freight trains.

Table N-4: Future (2025) Approximate Distance to Railroad Noise Contours

Train Source	Ldn, at 100 feet	Distance to Ldn contour (feet)		
		70	65	60
Union Pacific (freight)	67.1	-	-	-
Amtrak (passenger)	56.6	-	-	-
Combined Ldn	67.1	64	138	297

Airport Operations

The Paso Robles Municipal Airport is a public use airport located in the northeastern portion of the Planning Area, off Airport Road, north of Highway 46 East. Noise contours associated with airport operations were developed as part of the 2003 Noise Element of the General Plan. Noise level data from previous studies were utilized to illustrate areas near the airport where aircraft noise levels potentially exceed the noise level standard established by state law. Figure N-4 illustrates the current noise contours based on projected increases in aircraft use. This map has been used for land use planning purposes to illustrate where noise from aircraft operations can be expected. This map will be revised as part of the pending Airport Master Plan update.

The Airport Land Use Plan indicates that the number of operations at the Paso Robles Municipal Airport is expected to increase. The City has, however, been active in using land use controls to address potential conflicts from airport activities and noise-sensitive land uses. For example, lands around the airport have been restricted from residential and substantial retail land use development. As a result, aircraft noise has not been a major issue in the City and Planning Area. Figure N-5 shows the proposed airport noise contours.

The General Plan continues this land use control technique. The general traffic pattern zone is northeast to southwest, over the agricultural and grazing lands to the northeast, and over industrial park-designated lands to the southwest. Federal Aviation Administration (FAA) ordinance requires that aircraft maintain an altitude of at least 1,500 feet above sea level when approaching or departing the City. It should be noted that the General Plan Update does not change any land use designations in the Airport Planning Area to residential use.

Commercial and Industrial Operations

Commercial and industrial operations can be substantial sources of noise, depending on the specific type of use and hours of operation. Stationary noise sources of concern typically include generators, pumps, air compressors, outdoor speakers, motors, heavy equipment and similar machinery. These are often associated with trucking companies, tire shops, auto mechanic shops, metal shops, shopping centers, drive-up windows, car washes, loading docks, athletic fields, and electric generating stations.

Existing or planned commercial/industrial operations may result in noise impacts when they are adjacent to noise sensitive land uses. Noise generation within an industrial or commercial facility or in close proximity to many types of agricultural equipment is controlled indirectly by Federal and State employee health and safety regulations (e.g., OSHA and Cal-OSHA), but exterior noise emissions from such operations nevertheless have the potential to exceed locally acceptable standards and nearby noise-sensitive land uses. Typical commercial and industrial noise sources include loading dock operations, parking lot activity, on-site equipment (including heating and air conditioning), and heavy truck idling. Currently, potential stationary noise impacts in the City are most common near the following locations:

- *The Commerce Industrial Park, located on Commerce Way and south of Sherwood Road. This industrial area includes various manufacturing plants.*
- *The North River Road Area. Businesses in this area include a concrete “redi-mix” plant, auto body shop, grading and paving company, and several other industrial uses.*
- *The area near San Luis Tank, located near 26th Street and east of Spring Street. The facility manufactures oil and water storage tanks. Principal noise sources associated with the plant are the cutting, grinding and welding of sheet metal.*
- *The Union/Golden Hill Road Area. This area includes a welding operation and other industrial uses.*
- *The northern portions of the City nearest to Camp Roberts, which is located approximately 8 miles north of the City, along Highway 101. Camp Roberts is a training site for the California Army National Guard. Noise sources associated with the facility include ground-based sources such as artillery, demolitions, and small arms fire, and from fixed and rotary-wing aircraft (helicopters).*

Agricultural Operations

Agricultural operations produce noise associated with the following equipment: wind machines, cotton gins, diesel engines, aerial application aircrafts (crop dusters), cotton pickers, bird frightening devices, and tractors. Many of these noise sources lie outside the City and are related to seasonal operations. While these sources may periodically affect City residents they are usually outside the City’s jurisdiction to enforce noise ordinances. Packing operations, including refrigeration trucks, and movement of farm equipment are sources of noise that have the potential to affect sensitive receptors in the City, but are not a constant source of noise.

Construction Noise

In general, the grading phase of project construction tends to create the highest noise levels because of the operation of heavy equipment. Noise levels associated with heavy equipment typically range between 75–95 dBA at 50 feet from the source (EPA, 1971). Continuous operation of this equipment during a nine-hour workday can cause high noise levels above the present ambient levels.

Where new development is proposed in a location that may be affected by existing stationary noise sources. Noise at the proposed location shall not exceed the noise level standards of Table N-5 or where noise mitigation measures have been incorporated into the design of the development to reduce noise exposure to or below the levels specified in Table N-5. These standards do not apply to noise sources agricultural operations.

**Table N-5.
Maximum Allowable Noise Exposure-Stationary Noise Sources¹**

	Daytime (7 a.m. to 10 a.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly L, dB ²	50	45
Maximum level, dB ²	70	65
Maximum level, dB-Impulsive Noise ³	65	60

¹ As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.

² Sound level measurements shall be made with slow meter response.

³ Sound level measurements shall be made with fast meter response.

NOTE: "Slow" and "fast" meter responses are switch settings on noise meters. The slow setting dampens impulsive fluctuations to give an average noise level; the fast setting allows recordation of impulsive noises.