



## **Section 5.6**

### **Noise**

---



# Noise

## Section 5.6

### 5.6.1 PURPOSE

The purpose of this section is to describe the existing and *General Plan Update* buildout (2030) noise conditions within the City of Artesia (City). This section provides an assessment of noise impacts associated with construction, traffic, and stationary noise sources associated with the *General Plan Update*. The analysis in this section is based upon information from the *Noise Element* of the proposed *General Plan Update*.

### 5.6.2 EXISTING REGULATORY SETTING

This section summarizes the laws, ordinance, regulations, and standards that are applicable to the project. Regulatory requirements related to environmental noise are typically promulgated at the local level. However, Federal and State agencies provide standards and guidelines to the local jurisdictions.

#### STATE OF CALIFORNIA GUIDELINES

The State of California Office of Planning and Research (OPR) *Noise Element Guidelines* include recommended interior and exterior level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The *OPR Guidelines* describe the compatibility of various land uses with a range of environmental noise levels in terms of dBA CNEL.

A noise environment of 50 dBA CNEL to 60 dBA CNEL is considered to be “normally acceptable” for residential uses. The State indicates that locating residential units, parks, and institutions (such as churches, schools, libraries, and hospitals) in areas where exterior ambient noise levels exceed 65 dBA CNEL is undesirable. The OPR recommendations also note that, under certain conditions, more restrictive standards than the maximum levels cited may be appropriate. As an example, the standards for quiet suburban and rural communities may be reduced by 5 to 10 dB to reflect their lower existing outdoor noise levels in comparison with urban environments.

In addition, *Title 25, Section 1092* of the *California Code of Regulations*, sets forth requirements for the insulation of multiple-family residential dwelling units from excessive and potentially harmful noise. Whenever multiple-family residential dwelling units are proposed in areas with excessive noise exposure, the developer must incorporate construction features into the building’s design that reduce interior noise levels to 45 dBA CNEL.

Table 5.6-1, *Noise and Land Use Compatibility Matrix*, illustrates the State guidelines established by the State Department of Health Services for acceptable noise levels for each county and city. These standards and criteria are incorporated into the land use planning process to reduce future noise and land use incompatibilities. This table is the primary tool that allows the City to ensure integrated planning for compatibility between land uses and outdoor noise.



**Table 5.6-1  
Noise and Land Use Compatibility Matrix**

| Land Use Category   | Community Noise Exposure (L <sub>dn</sub> or CNEL, dBA) |                          |                       |                      |
|---|---|--------------------------|-----------------------|----------------------|
|   | Normally Acceptable                                     | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |
| Residential - Low Density, Single-Family, Duplex, Mobile Homes  | 50 - 60   | 55 - 70                  | 70-75                 | 75-85                |
| Residential – Multiple Family   | 50 - 65   | 60 - 70                  | 70 - 75               | 70 – 85              |
| Transient Lodging - Motel, Hotels   | 50 - 65   | 60 - 70                  | 70 - 80               | 80 – 85              |
| Schools, Libraries, Churches, Hospitals, Nursing Homes  | 50 - 70   | 60 - 70                  | 70 - 80               | 80 – 85              |
| Auditoriums, Concert Halls, Amphitheaters   | NA  | 50 - 70                  | NA                    | 65 – 85              |
| Sports Arenas, Outdoor Spectator Sports   | NA  | 50 - 75                  | NA                    | 70 – 85              |
| Playgrounds, Neighborhood Parks   | 50 - 70   | NA                       | 67.5 - 75             | 72.5 – 85            |
| Golf Courses, Riding Stables, Water Recreation, Cemeteries  | 50 - 70   | NA                       | 70 - 80               | 80 – 85              |
| Office Buildings, Business Commercial and Professional  | 50 - 70   | 67.5 - 77.5              | 75 - 85               | NA                   |
| Industrial, Manufacturing, Utilities, Agriculture   | 50 - 75   | 70 - 80                  | 75 - 85               | NA                   |
| NA: Not Applicable  |   |                          |                       |                      |
| Source: Office of Planning and Research, California, <i>General Plan Guidelines</i> , October 2003.   |   |                          |                       |                      |
| 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.   |   |                          |                       |                      |
| 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. |   |                          |                       |                      |
| Normally Unacceptable – New construction or development should 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.   |   |                          |                       |                      |
| Clearly Unacceptable – New construction or development should generally not be undertaken.  |   |                          |                       |                      |

**CITY OF ARTESIA NOISE STANDARDS**

The City of Artesia maintains a comprehensive Noise Ordinance within its *Municipal Code* that establishes citywide interior and exterior noise level standards for residential properties. The City has adopted a number of policies that are directed at controlling or mitigating environmental noise effects. The City’s Noise Ordinance (*Municipal Code* Title 5, Chapter 2, *Noise*) establishes daytime and nighttime noise standards; refer to Table 5.6-2, *Artesia Noise Standards*, for a summary of the City’s standards. The ordinance is designed to control unnecessary, excessive and annoying sounds generated from a stationary source impacting an adjacent property. It differentiates between environmental and nuisance noise. Environmental noise is measured under a time average period while nuisance noise cannot exceed the established Noise Ordinance levels at any time.



**Table 5.6-2  
Artesia Noise Standards**

| Noise Zone                 | Exterior Noise Standards |                    | Interior Noise Standards |                    |
|----------------------------|--------------------------|--------------------|--------------------------|--------------------|
|                            | Noise Level              | Time Period        | Noise Level              | Time Period        |
| All Residential Properties | 55 dB(A)                 | 7:00 AM – 10:00 PM | 55 dB(A)                 | 7:00 AM – 10:00 PM |
|                            | 50 dB(A)                 | 10:00 PM – 7:00 AM | 45 dB(A)                 | 10:00 PM – 7:00 AM |

Source: City of Artesia, *Municipal Code Title 5, Chapter 2*, March 2010.

Section 5-2.06, *Prohibited Noises – Specific Violations*, includes the following provisions for construction activities:

*The following activities are considered a violation of this chapter:*

- (f) *Construction. Operating or causing the operation of any tools, equipment, impact devices, derricks or hoists used on construction, drilling, repair, alteration, demolition or earthwork, between the hours of 7:00 p.m. and 7:00 a.m. on weekdays or at any time on Sunday or Federal holiday.*

Enforcing the Noise Ordinance includes requiring proposed development projects to demonstrate compliance regarding site planning and construction activities. The Noise Ordinance is reviewed periodically for adequacy and amended as needed to address community needs and development patterns.

### **5.6.3 EXISTING ENVIRONMENTAL SETTING**

#### **STANDARD UNIT OF MEASUREMENT**

Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by differentiating among frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound ten dBA higher than another is perceived to be twice as loud and 20 dBA higher is perceived to be four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud).



Various methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time;
- The influence of periodic individual loud events; and
- The community response to changes in the community noise environment.

Table 5.6-3, *Noise Descriptors*, lists various methods to measure sound over a period of time.

**Table 5.6-3  
Noise Descriptors**

| Term                                      | Definition   |
|---|--|
| Decibel (dB)                              | The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).   |
| A-Weighted Decibel (dBA)                  | A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).   |
| Equivalent Sound Level ( $L_{eq}$ )       | The sound level containing the same total energy as a time varying signal over a given time period. The $L_{eq}$ is the value that expresses the time averaged total energy of a fluctuating sound level.  |
| Maximum Sound Level ( $L_{max}$ )         | The highest individual sound level (dBA) occurring over a given time period.   |
| Minimum Sound Level ( $L_{min}$ )         | The lowest individual sound level (dBA) occurring over a given time period.  |
| Community Noise Equivalent Level (CNEL)   | A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 PM to 10:00 PM, and +10 dBA for the night, 10:00 PM to 7:00 AM.  |
| Day/Night Average ( $L_{dn}$ )            | The $L_{dn}$ is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the $L_{eq}$ . The $L_{dn}$ is calculated by averaging the $L_{eq}$ 's for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 PM to 7:00 AM), by 10 dBA to account for the increased sensitivity of people to noises that occur at night. |
| $L_{01}$ , $L_{10}$ , $L_{50}$ , $L_{90}$ | The fast A-weighted noise levels equaled or exceeded by a fluctuating sound level for 1 percent, 10 percent, 50 percent and 90 percent of a stated time period.  |

Source: Cyril M. Harris, *Handbook of Noise Control*, 1979.

**HEALTH EFFECTS OF NOISE**

Human response to sound is highly individualized. Annoyance is the most common issue regarding community noise. The percentage of people claiming to be annoyed by noise generally increases with the environmental sound level. However, many factors also influence people's response to noise. The factors can include the noise character, variability of the sound



level, presence of tones or impulses, and time of day of the occurrence. Additionally, non-acoustical factors, such as a person's opinion of the noise source, ability to adapt to the noise, attitude towards the source and those associated with it, and predictability of the noise, all influence a person's response. As such, response to noise varies widely from one person to another and with any particular noise, individual responses range from "not annoyed" to "highly annoyed."

When the noise level of an activity rises above 70 dBA, the chance of receiving a complaint is possible, and as the noise level rises, dissatisfaction among the public steadily increases. The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on the community can be organized into six broad categories:

- Noise-induced hearing loss;
- Interference with communication;
- Effects of noise on sleep;
- Effects on performance and behavior;
- Extra-auditory health effects; and
- Annoyance.

Although it often causes discomfort and sometimes pain, noise-induced hearing loss usually takes years to develop. Noise-induced hearing loss can impair the quality of life through a reduction in the ability to hear important sounds and to communicate with family and friends. Hearing loss is one of the most obvious and easily quantified effects of excessive exposure to noise. While the loss may be temporary at first, it could become permanent after continued exposure. When combined with hearing loss associated with aging, the amount of hearing loss directly caused by the environment is difficult to quantify. Although the major cause of noise-induced hearing loss is occupational, substantial damage can be caused by non-occupational sources.

According to the United States Public Health Service, nearly ten million of the estimated 21 million Americans with hearing impairments owe their losses to noise exposure. Noise can mask important sounds and disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television in the home. It can also disrupt effective communication between teachers and pupils in schools, and can cause fatigue and vocal strain in those who need to communicate in spite of the noise.

Interference with communication has proved to be one of the most important components of noise-related annoyance. Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern, or level of sleep. It can produce short-term adverse effects on mood changes and job performance, with the possibility of more serious effects on health if it continues over long periods. Noise can cause adverse effects on task performance and behavior at work, and non-occupational and social



settings. These effects are the subject of some controversy, since the presence and degree of effects depends on a variety of intervening variables. Most research in this area has focused mainly on occupational settings, where noise levels must be sufficiently high and the task sufficiently complex for effects on performance to occur.

Recent research indicates that more moderate noise levels can produce disruptive after-effects, commonly manifested as a reduced tolerance for frustration, increased anxiety, decreased incidence of “helping” behavior and increased incidence of “hostile” behavior. Noise has been implicated in the development or exacerbation of a variety of health problems, ranging from hypertension to psychosis. As with other categories, quantifying these effects is difficult due to the amount of variables that need to be considered in each situation. As a biological stressor, noise can influence the entire physiological system. Most effects seem to be transitory, but with continued exposure some effects have been shown to be chronic in laboratory animals.

Annoyance can be viewed as the expression of negative feelings resulting from interference with activities, as well as the disruption of one’s peace of mind and the enjoyment of one’s environment. Field evaluations of community annoyance are useful for predicting the consequences of planned actions involving highways, airports, road traffic, railroads, or other noise sources. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed above. In a study conducted by the United States Department of Transportation, the effects of annoyance to the community were quantified. In areas where noise levels were consistently above 60 dBA CNEL, approximately nine percent of the community was highly annoyed. When levels exceeded 65 dBA CNEL, the percentage rose to 15 percent. Although evidence for the various effects of noise has differing levels of certainty, it is evident that noise can affect human health. Most of the effects are, to a varying degree, stress related.

### NOISE SENSITIVE RECEPTORS

Human response to noise varies widely depending on the type of noise, time of day, and sensitivity of the receptor. The effects of noise on humans can range from temporary or permanent hearing loss to mild stress and annoyance due to such things as speech interference and sleep deprivation. Prolonged stress, regardless of the cause, is known to contribute to a variety of health disorders. Table 5.6-4, *Noise-Sensitive Receptors*, indicates some of the sensitive receptors that are located within the City that can be affected by excess noise levels.

**Table 5.6-4  
Noise-Sensitive Receptors**

| Type   | Name                                 | Street                  |
|--------|--------------------------------------|-------------------------|
| Church | St Paul Evangelical Community Church | 11428 Artesia Boulevard |
|        | GG Evangelical Church                | 11625 178th Street      |
|        | Cerritos Presbyterian Church         | 11841 178th Street      |
|        | Jehovahs Witnesses                   | 11972 178th Street      |
|        | Korean Independent Presbyterian      | 18116 Arline Avenue     |
|        | Artesia-Cerritos United Methodist    | 18523 Arline Avenue     |



**Table 5.6-4 [continued]  
Noise-Sensitive Receptors**

| Type                  | Name                              | Street                                   |
|-----------------------|-----------------------------------|--|
| Church<br>(continued) | Grace Samoan Assembly Of God      | 18415 Seine Avenue                       |
|                       | Netherlands Reformed Congregation | 11953 186th Street                       |
|                       | First Baptist Church-Artesia      | 18400 Grayland Avenue                    |
|                       | Trinity Christian Center          | 18325 Horst Avenue                       |
|                       | Centro Cristiano Iglesia          | 12054 183rd Street                       |
|                       | Holy Family Catholic Church       | 18708 Clarkdale Avenue                   |
|                       | River Shore Korean Church         | 18718 Grayland Avenue                    |
|                       | Trinity Christian Reformed Church | 18718 Grayland Avenue                    |
|                       | First Christian Reformed Church   | 18411 Alburts Avenue                     |
|                       | New Life Community Church         | 18800 Norwalk Boulevard                  |
|                       | Church In Cerritos                | 11428 187th Street                       |
| Library               | Artesia Library                   | 18722 South Clarkdale Avenue.            |
| Park                  | Artesia Park                      | Corner of South Street and Elaine Avenue |
| School                | Niemes Elementary School          | 16715 Jersey Avenue                      |
|                       | Ross Middle High School           | 17707 Elaine Avenue                      |
|                       | CPC Preschool                     | 11840 178th Street                       |
|                       | Kennedy School                    | 17500 Belshire Avenue                    |
|                       | Montessori House of Children      | 18523 Arline Avenue                      |
|                       | Our Lady of Fatima School         | 18626 Clarkdale Avenue                   |
|                       | New Life Pre School               | 18800 Norwalk Boulevard                  |
|                       | Master Academy                    | 12328 South Street                       |
|                       | Sigma Plus Academy                | 18743 Pioneer Boulevard                  |
|                       | Premier Academy                   | 11700 South Street                       |

Source: Google Earth, 2010.

**AMBIENT NOISE**

Artesia’s noise environment is dominated by vehicular traffic including vehicular generated noise along State Route 91 (SR-91), as well as primary and major arterials. The major arterials that serve the City are Artesia Boulevard, South Street, and Pioneer Boulevard.

In order to quantify the ambient noise levels in the City, RBF Consulting conducted noise measurements on April 19 and 20, 2007. The noise measurement locations were selected utilizing aerial photographs flown by Eagle Aerial in 2006. RBF utilized the aerial photographs to divide the City into a concentric grid pattern. The grid was then further grouped into similar land uses and sensitive receptor locations to determine specific Acoustical Zone Boundaries. RBF identified seven Acoustical Zone Boundaries that would provide sufficient data to establish an acoustical baseline for the City; refer to Exhibit 5.6-1, Noise Measurement Locations. RBF conducted one short-term noise measurement (ten minutes in length) in each designated Acoustical Zone on April 19 and 20, 2007, between 10:00 AM and 2:00 PM. The results of the field measurements are indicated in Appendix 12.5, Noise Data.





Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a 4189 pre-polarized freefield microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute for Type I (precision) sound level meters.

Table 5.6-5, *Existing Noise Levels*, outlines the ambient noise levels in the City based on the noise measurements conducted by RBF Consulting. As indicated in Table 5.6-5, the measured noise levels ranged from 50.8 dBA to 66.5 dBA.

**Table 5.6-5  
Existing Noise Levels**

| Site No. | Location  | Leq (dBA) | Time     |
|----------|---|-----------|----------|
| LT-1     | Located along Pioneer Boulevard near service and professional uses.   | 63.1      | 10:02 AM |
| 2        | Located within residential uses.  | 50.8      | 10:35 AM |
| 3        | Located along abandoned railroad right-of-way within and adjacent to low and high density residential uses.   | 51.4      | 10:58 AM |
| 4        | Located along South Street within commercial general land uses.   | 66.5      | 11:22 AM |
| 5        | Located within residential uses to the south of South Street.   | 57.6      | 12:22 PM |
| 6        | Located within residential uses (specifically located at a Trinity Christian Center and First Baptist Church) to the south of 183 <sup>rd</sup> Street. | 55.3      | 12:44 PM |
| 7        | Located within residential uses (to the north of Artesia Boulevard) that adjoin light manufacturing and industrial uses as well as commercial uses.     | 53.7      | 1:18 PM  |
| 8        | Located within residential and commercial general uses to the east of Pioneer Boulevard and to the north of SR-91.                                      | 65.4      | 1:44 PM. |

Source: Noise Monitoring Survey conducted by RBF Consulting, April 19 and 20, 2007; refer to Appendix 12.5, *Noise Data*.

### MOBILE NOISE SOURCES

Roadway noise levels throughout the City were projected using the Federal Highway Administration’s Highway Noise Prediction Model (FHWA RD-77-108) together with several roadway and site parameters. These parameters determine the projected impact of vehicular traffic noise and include the roadway cross-section (i.e., number of lanes), the roadway width, the average daily traffic (ADT), and the vehicle travel speed. The model does not account for ambient noise levels (i.e., noise from adjacent land uses) or topographical differences between the roadways and adjacent land uses. Various vehicle speeds were assumed throughout the City based on empirical observations and posted maximum speeds. Existing noise contours were calculated for several City roadways; refer to Table 5.6-6, *Existing Exterior Noise Exposure Adjacent to Nearby Roadways*. Noise generation for each roadway link was calculated and the distance to the 60 dBA CNEL, 65 dBA CNEL, and 70 dBA CNEL contours was determined.

The City of Artesia is not located within the 65 dBA CNEL contour for either the Long Beach Airport <sup>1</sup> or the Los Alamitos Army Airfield.<sup>2</sup>

<sup>1</sup> City of Long Beach, *City of Long Beach General Plan*, March 25, 1975.

<sup>2</sup> City of Los Alamitos, *City of Los Alamitos 2010 General Plan*, 1997.



**Table 5.6-6  
Existing Exterior Noise Exposure Adjacent to Nearby Roadways**

| Roadway Segment  | Existing |  |   |                        |                        |
|--|----------|--|---|------------------------|------------------------|
|  | ADT      | dBA @ 100 Feet<br>from Roadway<br>Centerline | Distance from Roadway Centerline to: (Feet) |                        |                        |
|  |          |  | 60 dBA CNEL<br>Contour                      | 65 dBA CNEL<br>Contour | 70 dBA CNEL<br>Contour |
| <b>Alburtis Avenue</b>   |          |  |   |                        |                        |
| North of 183 <sup>rd</sup> Street  | 3,127    | 57.1   | 54  | 17                     | 5                      |
| <b>Pioneer Boulevard</b>   |          |  |   |                        |                        |
| North of SR-91   | 24,491   | 68.1   | 762   | 241                    | 76                     |
| SR-91 to Artesia Boulevard   | 32,581   | 69.4   | 1,014                                       | 321                    | 101                    |
| Artesia Boulevard to 183 <sup>rd</sup> Street  | 22,325   | 67.7   | 694   | 219                    | 69                     |
| 183 <sup>rd</sup> Street to 186 <sup>th</sup> Street   | 16,410   | 66.5   | 510   | 161                    | 51                     |
| 186 <sup>th</sup> Street to 187 <sup>th</sup> Street   | 16,821   | 66.7   | 523   | 165                    | 52                     |
| 187 <sup>th</sup> Street to 188 <sup>th</sup> Street   | 14,142   | 65.8   | 440   | 139                    | 44                     |
| 188 <sup>th</sup> Street to South Street   | 15,225   | 66.1   | 473   | 150                    | 47                     |
| South of South Street  | 16,637   | 66.4   | 518   | 164                    | 52                     |
| <b>Norwalk Boulevard</b>   |          |  |   |                        |                        |
| South of South Street  | 24,472   | 65.7   | 422   | 133                    | 42                     |
| <b>176<sup>th</sup> Street</b>   |          |  |   |                        |                        |
| West of Pioneer Boulevard  | 4,500    | 57.2   | 56  | 18                     | 6                      |
| <b>183<sup>rd</sup> Street</b>   |          |  |   |                        |                        |
| East of Norwalk Boulevard  | 14,219   | 66.0   | 442   | 140                    | 44                     |
| <b>South Street</b>  |          |  |   |                        |                        |
| West of Pioneer Boulevard  | 2,289    | 67.8   | 711   | 225                    | 71                     |
| Pioneer Boulevard to Norwalk Boulevard   | 24,087   | 68.0   | 748   | 237                    | 75                     |
| East of Norwalk Boulevard  | 23,438   | 67.9   | 728   | 230                    | 73                     |
| ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level                        |          |  |   |                        |                        |
| Source: RBF Consulting, <i>City of Artesia General Plan Update Circulation and Mobility Element</i> , July 20, 2010. |          |  |   |                        |                        |

## STATIONARY NOISE SOURCES

Commercial and industrial land uses located near residential areas currently generate occasional noise impacts. The primary noise sources associated with these facilities are caused by delivery trucks, air compressors, generators, outdoor loudspeakers, and gas venting. Other significant stationary noise sources in the City include noise from construction activities, street sweepers, and gas-powered leaf blowers. The primary stationary noise sources that are present within the City are:

### Commercial Uses

Commercial development covers a broad spectrum of uses including retail, office, and service commercial. The City’s commercial corridor is generally located along Pioneer Boulevard and Artesia Boulevard. Various land uses are located along these two main arterials, including retail store, shops, restaurants, and various other commercial uses. Other commercial districts are located along Norwalk Boulevard and South Street.



A variety of stationary noise sources associated with commercial activities exists throughout the City. Commercial noise sources may include mechanical equipment and engines in non-moving motors such as power tools. Additional stationary noise sources may include animals, stereos, musical instruments, sporting events, and horns. These noise sources have the potential to temporarily disrupt the quietness of an area.

## Industrial Uses

The industrial uses within the City are generally located in the southern portion of the City along Corby Avenue, and in the northern portion of the City along Roseton Avenue (between SR-91 and Artesia Boulevard). In general, industrial noise sources are not creating large-scale problems, but some localized noise problems related to industrial sources do exist, particularly near residential areas. Industrial land uses have the potential to generate noise that can be considered intrusive to sensitive land uses. Depending on the type of industrial operation, noise sources could involve mechanical equipment, loading and unloading of vehicles and trucks, as well as amplified or un-amplified communications. The level and intrusiveness of the noise generated also vary depending on the size and type of the facility, type of business, hours of operation, and location relative to sensitive land uses.

### 5.6.4 SIGNIFICANCE THRESHOLDS AND CRITERIA

Appendix G of the *CEQA Guidelines* contains the *Initial Study Environmental Checklist Form* used during preparation of the Project Initial Study; refer to [Appendix 12.1, Initial Study/Notice of Preparation](#). The Checklist includes questions relating to noise, which have been utilized as thresholds of significance in this section. Accordingly, a significant environmental impact would occur if the Project would:

- Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Expose persons to or generate excessive groundborne vibration or groundborne noise levels;
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of public airport or public use airport, expose people residing or working in the project area to excessive noise levels, and/or
- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.



## SIGNIFICANCE OF CHANGES IN CUMULATIVE TRAFFIC NOISE LEVELS

A project is considered to have a significant noise impact where it causes an adopted noise standard to be exceeded for the project site or for adjacent sensitive receptors. In addition to being concerned about the absolute noise level that might occur when a new source is introduced into an area, it is also important to consider the existing noise environment. If the existing noise environment is quiet and the new noise source greatly increases the noise exposure, even though a criterion level might not be exceeded, some impact may occur. Lacking adopted standards for evaluating such impacts, general considerations for community noise environments are that a change of over 5 dBA is readily noticeable when the existing noise level is less than 60 dBA and, therefore, is considered a significant impact; refer to Table 5.6-7, Significance of Changes in Cumulative Noise Exposure. Increases in the ambient noise level between 3 dBA and 5 dBA are noticed when existing noise levels are between 60 dBA and 65 dBA, therefore a significant impact would occur under these conditions. Changes in community noise levels greater than 1.5 dBA are noticeable when the existing noise level is greater than 65 dBA; therefore a significant impact would occur. Potential significant impacts would result if increases in ambient noise levels exceeded the thresholds stated in Table 5.6-7, and the ambient noise level exceeds the thresholds stipulated within the City’s *Municipal Code*.

**Table 5.6-7  
Significance of Changes in Cumulative Noise Exposure**

| Ambient Noise Level Without Project (Ldn or CNEL)   | Significant Impact Assumed to Occur if the Project Increases Ambient Noise Levels by: |
|---|---|
| < 60 dBA  | 5.0 dBA or more   |
| 60 dBA - 65 dBA   | 3.0 dBA or more   |
| > 65 dBA  | 1.5 dBA or more   |
| Source: U.S. Environmental Protection Agency Office of Noise Abatement and Control, <i>Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise</i> , October 1979 (revised July 1981). |   |

Based on these significance thresholds and criteria, the Project’s effects have been categorized as either “effects found not to be significant” or “potentially significant impact.” Feasible mitigation measures, which could avoid or minimize potentially significant impacts are identified. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a “significant unavoidable impact.”

### 5.6.5 PROJECT IMPACTS AND MITIGATION MEASURES

#### □ GENERAL PLAN UPDATE POLICIES

The Noise Element Goals and Policies are outlined in Section 3.4.6, Proposed General Plan Goals and Policies. Additionally, the following Policies and Policy Actions are relevant to noise, and have been proposed in the General Plan Update:



## COMMUNITY DEVELOPMENT AND DESIGN ELEMENT

### Land Use

**Community Policy LU 2.1:** Protect residential areas from the effects of potentially incompatible uses.

*Policy Action LU 2.1.1:* Maintain standards for circulation, noise, setbacks, buffer areas, landscaping and architecture to ensure compatibility between different uses.

### EFFECTS FOUND NOT TO BE SIGNIFICANT

In accordance with Section 15128, *Effects Not Found To Be Significant*, of the *CEQA Guidelines*, the following briefly discusses the reasons that various possible significant effects of the Project were determined not to be significant (no impact) and were therefore not discussed in detail.

---

**Threshold:** *For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working the Project area to excessive noise levels?*

---

**Threshold:** *For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?*

---

The City is not located within an airport land use plan and no public airports are located within two miles. The nearest public airport is the Long Beach Airport, located approximately 4.25 miles southwest of the City. The nearest airfield, the Los Alamitos Army Airfield, is located approximately 4.4 miles south of the City. The City is not within the 65 dBA CNEL noise contour of either the Long Beach Airport or the Los Alamitos Army Airfield. As such, implementation of the proposed *General Plan Update* would not expose people residing or working in the City to excessive noise levels from a public airport or private airstrip.

### POTENTIALLY SIGNIFICANT IMPACTS

#### SHORT-TERM CONSTRUCTION NOISE

■ CONSTRUCTION-RELATED ACTIVITIES FROM DEVELOPMENT ACCOMMODATED UNDER THE PROPOSED *GENERAL PLAN UPDATE* WOULD GENERATE NOISE LEVELS THAT COULD EXCEED ESTABLISHED STANDARDS.

**Impact Analysis:** Typical activities associated with construction are a highly noticeable temporary noise source. Noise from construction activities is generated by two primary sources: (1) the transport of workers and equipment to construction sites and (2) the noise related to active construction equipment. These noise sources can be a nuisance to local residents and businesses or unbearable to sensitive receptors (i.e., residences, hospitals, senior centers, schools, day care facilities, etc.).



The City of Artesia is mostly builtout and very few vacant parcels remain throughout the City that would experience construction activities. It is unlikely the City would experience intensive construction activity with implementation of the *General Plan Update*. As stated above, *Municipal Code Section 5-2.06, Prohibited Noises – Specific Violations*, allows construction noise provided activities occur on weekdays between the hours of 7:00 AM and 7:00 PM.

The City would require each project to implement the proposed *General Plan Update* Policies, and Policy Actions, and mitigation measures that address construction-related noise in order to minimize impacts to surrounding sensitive receptors. Through the environmental review process for individual projects, additional mitigation may also be required to further reduce construction-related noise impacts to a less than significant level. Development under the *General Plan Update* would primarily involve commercial and residential uses, thus significant impacts are not anticipated for groundborne vibration.

Compliance and/or adherence to the City’s Noise Ordinance, Policies and Policy Actions in the proposed *General Plan Update*, and adherence to the recommended mitigation measures, would reduce short-term construction noise impacts to less than significant levels.

**Mitigation Measures:**

NOI-1 At the discretion of the City of Artesia’s Community Development Director, construction activities that may occur under the *General Plan Update* shall include, but not be limited to the following:

- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receptors.
- All construction equipment shall use available noise suppression devices and properly maintained mufflers. All internal combustion engines used in the project area shall be equipped with the type of muffler recommended by the vehicle manufacturer. In addition, all equipment shall be maintained in good mechanical condition to minimize noise created by faulty or poorly maintained engine, drive-train, and other components.
- Construction noise reduction methods (i.e., shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied sensitive receptor areas, and use of electric air compressors and similar power tools, rather than diesel equipment) shall be employed where feasible. Staging of construction equipment and unnecessary idling of equipment shall be avoided whenever feasible. “Feasible,” as used here, means that the implementation of this measure would not have a notable effect on construction operations or schedule.

**Level of Significance:** Less Than Significant With Mitigation Incorporated.



## LONG-TERM OPERATIONAL IMPACTS

- LONG-TERM OPERATIONAL NOISE FROM DEVELOPMENT ASSOCIATED WITH THE PROPOSED *GENERAL PLAN UPDATE* COULD CONTRIBUTE TO AN EXCEEDANCE OF THE CITY'S NOISE STANDARDS.

### Impact Analysis:

#### MOBILE SOURCES

Existing and future noise levels have been calculated for various roadway segments within the City of Artesia. Table 5.6-6 outlines the City's existing roadway noise levels. Table 5.6-8, *Year 2030 Exterior Noise Adjacent to Nearby Roadways*, outlines the City's future roadway noise levels under *General Plan Update* buildout conditions. As indicated in Table 5.6-8, 13 modeled roadway segments (along Pioneer Boulevard, Norwalk Boulevard, 183<sup>rd</sup> Street, and South Street) would generate noise levels greater than or equal to 65 dBA CNEL at 100 feet from centerline. No roadway segments modeled would generate noise levels between 60 dBA CNEL and 65 dBA CNEL at 100 feet from the centerline. Eight modeled roadway segments (along Alburdis Avenue and 176<sup>th</sup> Street) would generate noise levels between 55 dBA CNEL and 60 dBA CNEL at 100 feet from the centerline.

**Table 5.6-8  
Year 2030 Exterior Noise Adjacent to Nearby Roadways**

| Roadway Segment  | General Plan Buildout |  |   |                     |                     |
|--|-----------------------|--|---|---------------------|---------------------|
|  | ADT                   | dBA @ 100 Feet from Roadway Centerline | Distance from Roadway Centerline to: (Feet) |                     |                     |
|  |                       |  | 60 dBA CNEL Contour                         | 65 dBA CNEL Contour | 70 dBA CNEL Contour |
| <b>Alburdis Avenue</b>   |                       |  |   |                     |                     |
| North of 183 <sup>rd</sup> Street  | 3,773                 | 57.9                                   | 65  | 21                  | 6                   |
| <b>Pioneer Boulevard</b>   |                       |  |   |                     |                     |
| North of SR-91   | 29,335                | 68.9                                   | 912   | 288                 | 91                  |
| SR-91 to Artesia Boulevard   | 41,593                | 70.4                                   | 1,294                                       | 409                 | 129                 |
| Artesia Boulevard to 183 <sup>rd</sup> Street  | 28,699                | 68.8                                   | 891   | 282                 | 89                  |
| 183 <sup>rd</sup> Street to 186 <sup>th</sup> Street   | 21,468                | 67.6                                   | 667   | 211                 | 67                  |
| 186 <sup>th</sup> Street to 187 <sup>th</sup> Street   | 21,781                | 67.8                                   | 677   | 214                 | 68                  |
| 187 <sup>th</sup> Street to 188 <sup>th</sup> Street   | 18,477                | 67.1                                   | 608   | 192                 | 61                  |
| 188 <sup>th</sup> Street to South Street   | 19,657                | 67.2                                   | 879   | 278                 | 88                  |
| South of South Street  | 18,951                | 67.0                                   | 589   | 186                 | 59                  |
| <b>Norwalk Boulevard</b>   |                       |  |   |                     |                     |
| South of South Street  | 28,273                | 66.3                                   | 488   | 154                 | 49                  |
| <b>176<sup>th</sup> Street</b>   |                       |  |   |                     |                     |
| West of Pioneer Boulevard  | 5,146                 | 57.8                                   | 63  | 20                  | 6                   |
| <b>183<sup>rd</sup> Street</b>   |                       |  |   |                     |                     |
| East of Norwalk Boulevard  | 16,198                | 66.5                                   | 504   | 159                 | 50                  |
| <b>South Street</b>  |                       |  |   |                     |                     |
| West of Pioneer Boulevard  | 26,957                | 68.5                                   | 838   | 265                 | 84                  |
| Pioneer Boulevard to Norwalk Boulevard   | 27,833                | 68.7                                   | 865   | 274                 | 86                  |
| East of Norwalk Boulevard  | 26,854                | 68.5                                   | 836   | 264                 | 84                  |
| ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level                        |                       |  |   |                     |                     |
| Source: RBF Consulting, <i>City of Artesia General Plan Update Circulation and Mobility Element</i> , July 20, 2010. |                       |  |   |                     |                     |



The majority of the roadway segments with higher noise levels are located within commercial areas of the City. However, with implementation of the proposed *General Plan Update*, some residential uses would experience noise levels that would exceed the City's Noise and Land Use Criteria Compatibility Criteria due to the increase in roadway noise. Should noise conditions exceed the Noise and Land Use Compatibility Criteria "Normally Acceptable" noise exposure levels, individual development projects would implement noise reduction design measures (Mitigation Measure NOI-2). Adherence to the City's Noise Ordinance, the Policies and Policy Actions in the proposed *General Plan Update*, and the recommended mitigation measures would reduce the ambient noise impacts to less than significant levels.

## **STATIONARY SOURCES**

Commercial and industrial land uses in the City are located near sensitive receptor areas. These uses currently generate occasional stationary noise impacts. Primary noise sources associated with these facilities are due to customer trips, delivery trucks, air compressors, generators, outdoor loudspeakers, and gas vents. Other significant stationary noise sources within the City include construction activity, street sweepers, and gas-powered leaf blowers.

### **Residential Uses**

Noise that is typical of residential areas includes children playing, pets, amplified music, mechanical equipment, and home repair. Noise from residential stationary sources would primarily occur during the "daytime" activity hours of 7:00 AM to 10:00 PM. Future noise from the residential uses would be consistent with existing residential uses. Also, the surrounding roadways would mask residential noise.

### **Mechanical Equipment**

Typical mechanical equipment associated with stationary sources include heating, ventilation, and air conditioning units (HVAC). Actual activity levels would vary from season to season and day to day, and noise level reference data for the HVAC units are only available for high activity levels more characteristic of conditions during daytime hours on a warm summer day. Typical HVAC units would operate in unoccupied mode throughout the entire nighttime period, using a temperature threshold for cooling that is unlikely to be triggered during those hours. HVAC related noise levels would be substantially lower during the nighttime hours than during the loudest daytime hour. It is reasonable to expect that all HVAC units could be idle throughout the entire nighttime period on most nights. As discussed above, temporal variations in noise emissions from the HVAC units are expected to be complex and cannot be accurately distilled into a single diurnal pattern. It is reasonable to expect that, for at least a single daytime hour during warmer times of the year, all or nearly all of the HVAC units could be operating simultaneously and nearly continuously. Should noise conditions exceed the regulations within the *Municipal Code*, individual development projects would implement applicable noise attenuation features (Mitigation Measure NOI-3).



### **Slow-Moving Trucks (Deliveries)**

In commercial areas, noise sources at loading areas may include maneuvering and idling trucks, truck refrigeration units, fork lifts, banging and clanging of equipment (i.e., hand carts and roll-up doors), noise from public address systems and voices of truck drivers and employees. Noise sources at loading areas may include maneuvering and idling trucks, truck refrigeration units, fork lifts, banging and clanging of equipment (i.e., hand carts and roll-up doors), noise from public address systems, and voices of truck drivers and employees. Should noise conditions exceed the regulations within the *Municipal Code*, individual development projects would implement applicable noise attenuation features (Mitigation Measure NOI-3).

### **Parking Areas**

Traffic associated with parking lots is not of sufficient volume to exceed community noise standards that are based on a time averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by a car door slamming, an engine starting-up, and car passing by may be an annoyance to adjacent sensitive receptors. Conversations in parking areas may also be an annoyance to adjacent sensitive receptors. Should noise conditions exceed the regulations within the *Municipal Code*, individual development projects would implement applicable noise attenuation features (Mitigation Measure NOI-3).

### **Landscape Maintenance**

Implementation of the *General Plan Update* would introduce new landscaping requiring periodic maintenance. Noise generated by maintenance equipment such as gasoline-powered lawnmowers, leaf-blowers, or hedge edgers could be a nuisance to nearby sensitive receptors. Maintenance activities would be conducted during daytime hours for brief periods of time and would increase ambient noise levels.

### **Solid Waste Pick-Up and Compacting**

Noise from solid waste pickup and compacting results from the use of hydraulic equipment to raise and lower the metal bins and compact their contents. A typical pickup takes approximately three minutes. The higher noise levels occur during approximately one-half of the operation. Waste pick-up and compacting activities would occur during daytime hours.

Should noise conditions exceed the regulations within the *Municipal Code*, individual development projects would implement applicable noise attenuation features (Mitigation Measure NOI-3). Compliance and/or adherence to the City's Noise Ordinance, and Policies and Policy Actions in the proposed *General Plan Update* would reduce stationary noise impacts for the City to less than significant.

### **Mitigation Measures:**

NOI-2 At the discretion of the City of Artesia's Community Development Director, all new development that may occur under the *General Plan Update* shall include noise



reduction design measures (i.e., attenuation barriers, double pane windows, sound attenuating building walls, incorporate architecturally attenuating features, landscaping, etc.) where conditions exceed the Noise and Land Use Compatibility Criteria “Normally Acceptable” noise exposure levels.

NOI-3 At the discretion of the City of Artesia’s Community Development Director, all new stationary sources shall include noise reduction practices (i.e., mufflers, well maintained mechanical equipment, etc.) where conditions exceed the regulations within the *Municipal Code*. In addition, areas adjacent to sensitive receptors that are in excess of the City’s Noise Ordinance (i.e., parking lots, public trash receptacles, truck delivery areas, etc.), shall implement applicable noise attenuation features (i.e., attenuation wall, mufflers, etc.).

**Level of Significance:** Less Than Significant With Mitigation Incorporated.

## 5.6.6 CUMULATIVE IMPACTS

### CUMULATIVE SHORT-TERM CONSTRUCTION NOISE

- SHORT-TERM CONSTRUCTION NOISE ASSOCIATED WITH BUILDOUT OF THE PROPOSED *GENERAL PLAN UPDATE* COULD GENERATE CUMULATIVELY SIGNIFICANT NOISE LEVELS.

**Impact Analysis:** The City of Artesia is builtout and very few vacant parcels are scattered throughout the City that would experience construction activity. It is unlikely the City would experience intensive construction activity with implementation of the *General Plan Update*. In addition, it is unlikely that all construction projects would occur simultaneously within the City. Thus, a less than significant impact would occur.

**Mitigation Measures:** No mitigation measures beyond the Policies, and Policy Actions identified in the proposed *General Plan Update* are required.

**Level of Significance:** Less Than Significant.

### CUMULATIVE LONG-TERM OPERATIONAL IMPACTS

- LONG-TERM OPERATIONAL NOISE ASSOCIATED WITH BUILDOUT OF THE PROPOSED *GENERAL PLAN UPDATE* WOULD GENERATE CUMULATIVELY SIGNIFICANT NOISE LEVELS.

**Impact Analysis:** Table 5.6-9, *Cumulative Exterior Noise Adjacent to Nearby Roadways*, compares the “Existing” scenario to the “General Plan Buildout” scenario and outlines the anticipated noise level changes adjacent to specific roadways in the City, as a direct result of implementation of the *General Plan Update*. As indicated within Table 5.6-9, buildout of the *General Plan Update* would not generate an audible noise level increase along the roadway



segments. The highest noise increase would be 1.3 dBA along Pioneer Boulevard, between 187<sup>th</sup> Street and 188<sup>th</sup> Street, where under existing conditions, the noise level is 65.8 dBA. Because the increase would be less than 1.5 dBA, a significant impact would not occur. Implementation of the *General Plan Update* would increase mobile noise between 0.5 dBA and 1.3 dBA and an audible noise increase would not occur. Notwithstanding, as discussed previously, with implementation of the proposed *General Plan Update*, some residential uses would experience noise levels that would exceed the City’s Noise and Land Use Criteria Compatibility Criteria due to the increase in roadway noise. However, compliance and/or adherence to the Policies and Policy Actions of the *General Plan Update*, and mitigation measures would reduce residential use exposure to excessive noise levels. Impacts in this regard would be less than significant.

**Table 5.6-9  
Cumulative Exterior Noise Adjacent to Nearby Roadways**

| Roadway Segment  | Existing |  | General Plan Buildout |  | Difference in dBA @ 100 feet from Roadway | Potentially Significant Impact? |
|--|----------|--|-----------------------|--|---|---------------------------------|
|  | ADT      | dBA @ 100 Feet from Roadway Centerline | ADT                   | dBA @ 100 Feet from Roadway Centerline |   |                                 |
| <b>Alburtis Avenue</b>   |          |  |                       |  |   |                                 |
| North of 183 <sup>rd</sup> Street  | 3,127    | 57.1                                   | 3,773                 | 57.9                                   | 0.8                                       | No                              |
| <b>Pioneer Boulevard</b>   |          |  |                       |  |   |                                 |
| North of SR-91   | 24,491   | 68.1                                   | 29,335                | 68.9                                   | 0.8                                       | No                              |
| SR-91 to Artesia Boulevard   | 32,581   | 69.4                                   | 41,593                | 70.4                                   | 1.0                                       | No                              |
| Artesia Boulevard to 183 <sup>rd</sup> Street  | 22,325   | 67.7                                   | 28,699                | 68.8                                   | 1.1                                       | No                              |
| 183 <sup>rd</sup> Street to 186 <sup>th</sup> Street   | 16,410   | 66.5                                   | 21,468                | 67.6                                   | 1.1                                       | No                              |
| 186 <sup>th</sup> Street to 187 <sup>th</sup> Street   | 16,821   | 66.7                                   | 21,781                | 67.8                                   | 1.1                                       | No                              |
| 187 <sup>th</sup> Street to 188 <sup>th</sup> Street   | 14,142   | 65.8                                   | 18,477                | 67.1                                   | 1.3                                       | No                              |
| 188 <sup>th</sup> Street to South Street   | 15,225   | 66.1                                   | 19,657                | 67.2                                   | 1.1                                       | No                              |
| South of South Street  | 16,637   | 66.4                                   | 18,951                | 67.0                                   | 0.6                                       | No                              |
| <b>Norwalk Boulevard</b>   |          |  |                       |  |   |                                 |
| South of South Street  | 24,472   | 65.7                                   | 28,273                | 66.3                                   | 0.6                                       | No                              |
| <b>176<sup>th</sup> Street</b>   |          |  |                       |  |   |                                 |
| West of Pioneer Boulevard  | 4,500    | 57.2                                   | 5,146                 | 57.8                                   | 0.6                                       | No                              |
| <b>183<sup>rd</sup> Street</b>   |          |  |                       |  |   |                                 |
| East of Norwalk Boulevard  | 14,219   | 66.0                                   | 16,198                | 66.5                                   | 0.5                                       | No                              |
| <b>South Street</b>  |          |  |                       |  |   |                                 |
| West of Pioneer Boulevard  | 2,289    | 67.8                                   | 26,957                | 68.5                                   | 0.7                                       | No                              |
| Pioneer Boulevard to Norwalk Boulevard   | 24,087   | 68.0                                   | 27,833                | 68.7                                   | 0.7                                       | No                              |
| East of Norwalk Boulevard  | 23,438   | 67.9                                   | 26,854                | 68.5                                   | 0.6                                       | No                              |
| ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level                        |          |  |                       |  |   |                                 |
| Source: RBF Consulting, <i>City of Artesia General Plan Update Circulation and Mobility Element</i> , July 20, 2010. |          |  |                       |  |   |                                 |

Noise caused by stationary sources would not substantially increase with implementation of the *General Plan Update* as the City of Artesia is generally builtout. Through implementation of the *General Plan Update*, it is anticipated that there would be few new stationary sources. Therefore, a less than significant impact would occur.



**Mitigation Measures:** No mitigation measures beyond the Policies and Policy Actions identified in the proposed *General Plan Update* have been identified.

**Level of Significance:** Less Than Significant.

## 5.6.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Compliance with the Noise Ordinance, the proposed *General Plan Update* Goals, Policies, and Policy Actions, and implementation of the recommended mitigation measures presented above would reduce noise-related impacts to less than significant levels. No significant unavoidable impacts have been identified.

## 5.6.8 SOURCES CITED

City of Artesia, *Municipal Code*, 2010.

Google Earth, 2010.

Harris, Cyril M., *Handbook of Noise Control*, 1979.

Office of Planning and Research, California, *General Plan Guidelines*, October 2003.

RBF Consulting, *City of Artesia General Plan Update*, July 20, 2010.

U.S. Department of Transportation, Federal Highway Administration, *FHWA Highway Traffic Noise Prediction Model*, December 1978.

U.S. Department of Transportation, Federal Highway Administration, *FHWA Traffic Noise Model, User's Guide (Version 2.5 addendum)*, April 2004.

U.S. Environmental Protection Agency Office of Noise Abatement and Control, *Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise*, October 1979 (revised July 1981).