4.10 | NOISE

INTRODUCTION

This section describes existing conditions within Coachella as they relate to noise, and the potential impacts relating to noise from the Coachella CGPU. Information for this section is based largely on data and analysis from the proposed Noise Element of the CGPU and its technical appendices.

EXISTING CONDITIONS

ENVIRONMENTAL BASELINE SETTING

Fundamentals of Sound

Sound is technically 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 discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are measured on a logarithmic scale. This 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 10 dBA higher than another is judged to be twice as loud; and 20 dBA higher four times as loud; and so forth. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud). Examples of typical sound levels in different environments are shown in Figure 4.10-1.

Fundamentals of Vibration

Vibration is sound radiated through the ground. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors. Ground-borne vibration related to human annoyance is generally related to root mean square (RMS) velocity levels expressed in vibration decibels (VdB). However, construction-related groundborne vibration in relation to its potential for building damage can also be measured in inches per second (in/sec) peak particle velocity (PPV) (Federal Transit Administration, May 2006). Based on the FTA's Transit Noise and Vibration Impact Assessment and the California Department of Transportation's 1992 Transportation-Related Earthborne Vibration, Technical Advisory, vibration levels decrease by 6 VdB with every doubling of distance.

The background vibration velocity level in residential and educational areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

Noise Metrics

Community noise is generally not a steady state and varies with time. Under conditions of non-steady state noise, some type of statistical metric is necessary in order to quantify noise exposure over a long period of time. Several rating scales have been developed for describing the effects of noise on people. They are designed to account for the above known effects of noise on people.

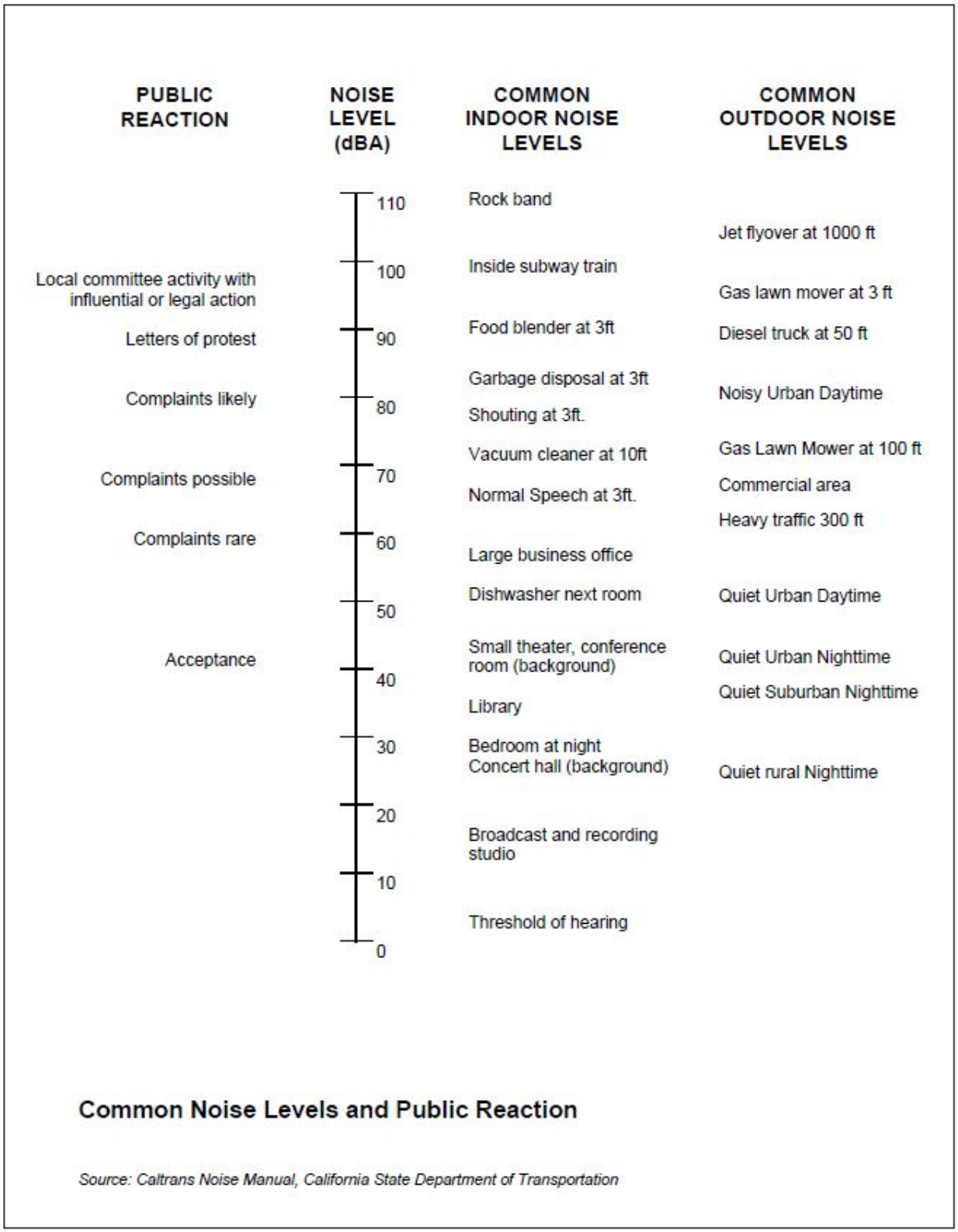
Based on these effects, the observation has been made that the potential for noise to impact people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. These scales include: the Equivalent Noise Level (Leq), the Day Night Noise Level (LDN), and the Community Noise Equivalent Level (CNEL). These scales are described in the following paragraphs.

Leq is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. Leq is the "energy" average noise level during the time period of the sample. Leq can be measured for any time period, but is typically measured for 15 minutes, 1 hour, or 24 hours.

Ldn is a 24-hour, time-weighted annual average noise level. Time-weighted refers to the fact that noise which occurs during certain sensitive time periods is penalized for occurring at these times. In the Ldn scale, those events that take place during the night (10 pm to 7 am) are penalized by 10 dBA. This penalty was selected to attempt to account for increased human sensitivity to noise during the night, when most people sleep.

CNEL is similar to the Ldn scale, except that it includes an additional 5 dBA penalty for events that occur during the evening (7 pm to 10 pm). Either Ldn or CNEL may be used to identify community noise impacts within the Noise Element.

Figure 4.10-1: Examples of Typical Sound Levels



Common Noise Levels and Public Reaction

Source: Caltrans Noise Manual, California State Department of Transportation

Definition and Impacts of Noise

Noise is defined as unwanted sound and is known to have several adverse effects on people. From these known effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on such known impacts of noise on people as hearing loss, speech interference, sleep interference, physiological responses and annoyance. Each of these potential noise impacts on people are briefly discussed below:

Hearing Loss is not a major noise concern for projects such as this CGPU because the potential for noise induced hearing loss is more commonly associated with occupational noise exposures in heavy industry or very noisy work environments. Noise levels in neighborhoods, even in very noisy airport environs, are not sufficiently loud to cause hearing loss.

Speech Interference is one of the primary noise concerns. Normal conversational speech is in the range of 60 to 65 dBA, and any noise in this range or louder may interfere with speech.

Sleep Interference is a major noise concern because sleep is the most noise sensitive human activity. Sleep disturbance studies have identified interior noise levels that have the potential to cause sleep disturbance. Sleep disturbance does not necessarily mean awakening from sleep, but can refer to altering the pattern and stages of sleep.

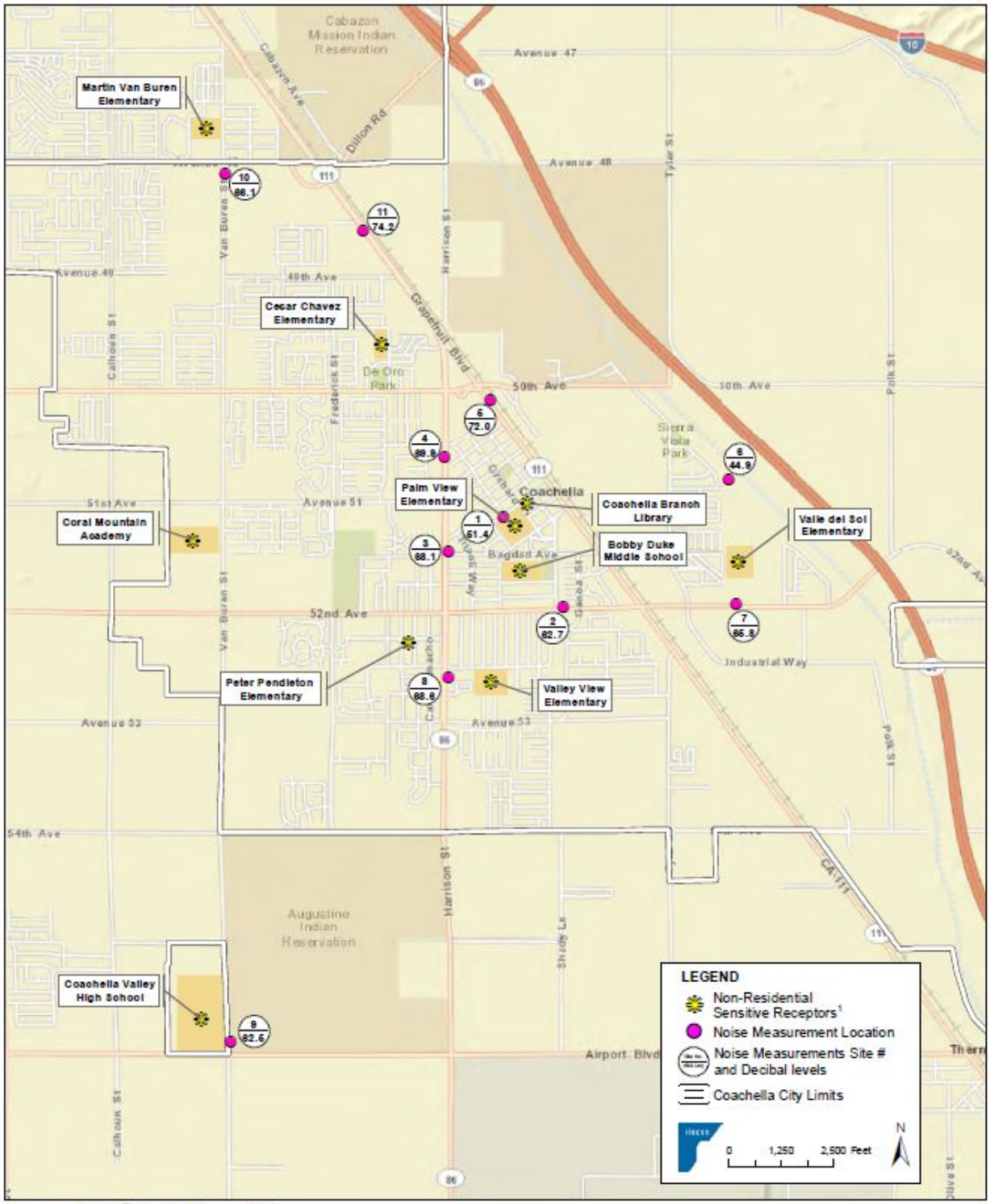
Physiological Responses are those measurable effects of noise on people which are realized as changes in pulse rate, blood pressure, etc. While such effects can be induced and observed, the extent to which these physiological responses cause harm or are signs of harm is not known.

Annoyance is the most difficult of all noise responses to describe. Annoyance is a very individual characteristic and can vary widely from person to person. What one person considers tolerable can be quite unbearable to another of equal hearing capacity.

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 commercial or industrial uses that are not subject to impacts such as sleep disturbance. According to the CGPU, Approximately 1,339 acres (27.7%) of Coachella's 4,924 acres of non-agricultural or vacant land are residential. These areas are considered the most noise-sensitive. Figure 4.10-2 shows other noise-sensitive receptors in Coachella, including various schools, parks, and the Coachella Branch Library. Coachella does not contain any hospitals, other long-term care medical facilities, or guest lodging facilities. Residential receptors are not shown on Figure 4.10-2 because they are located throughout Coachella. For a map of residential land uses in Coachella, please refer to the Land Use and Planning section of this EIR. Sensitive land uses generally should not be subjected to noise levels that would be considered intrusive in character. Therefore, the location, hours of operation, type of use, and extent of development planned for under the CGPU warrant close analysis in an effort to ensure that noise sensitive receptors are not substantially affected by noise.

Figure 4.10-2: Noise-Sensitive Receptor and Noise Measurement Locations



Basemap provided by ESRI and its Licensors, 2013.

[1]The location of noise-sensitive residential receptors is not shown because residential neighborhoods are located throughout Coachella. Please refer to the Land Use section of this General Plan for a map of different land uses with the community.

Existing Noise Conditions and Sources

The predominant noise source in Coachella, as in most communities, is motor vehicles. The city includes a range of facilities including regional freeways, major highways and other arterials, and collector and local streets. The highest volume roadways in the city are SR111, which runs northwest to southeast through the community and is referred to as Indio Boulevard north of Harrison Street and Grapefruit Boulevard south of Harrison Street; the SR86S freeway, which parallels SR111 about one mile east on the other side of the Whitewater River; and Harrison Street, which runs north to south through the middle of Coachella from SR111 and beyond the southern city limits. Other major sources of noise in Coachella include the railway that runs through Coachella along the east side of SR111 and factories, processing and distribution facilities such as the Coronet Concrete plant located on the northwest corner of Grapefruit Boulevard and 1st Street. Other, less significant noise sources in Coachella include aircraft overflights, air conditioning units and other mechanical equipment on buildings, landscaping equipment and human speech. None of these sources significantly contribute to overall noise levels when compared to traffic noise. The airport closest to Coachella is Jacqueline Cochran Regional Airport, located approximately two miles south of central Coachella on the south side of Airport Boulevard.

As part of the development of the Noise Element, eleven sites were selected for measurement of Coachella's existing noise environment. The measurement locations were selected on the basis of proximity to major noise sources, noise sensitivity of nearby land uses, and obtaining a representative sample of different noise environments throughout the community. The results of the community noise survey were used to determine existing noise levels at noise-sensitive receptors; provide empirical data for the correlation and calibration of the computer-modeled noise environment; and obtain an accurate description of ambient noise levels in various locations throughout the City.

The community noise survey was conducted on Tuesday, April 2, 2013, between 9:49 AM and 3:39 PM, by taking 15-minute noise reading using an ANSI Type II integrating sound level meter. The measurement locations and measured noise levels are depicted in Figure 4.10-2, and Table 4.10-1 identifies the noise measurement locations, measurement time, and measured noise levels.

As shown in Figure 4.10-2 and Table 4.10-1, the results of the Community Noise Survey support the conclusion that traffic along the city's busiest roadways, most notably Highway 111 and Harrison Street, is the main noise source in Coachella, with the highest noise readings being recorded along the busiest roadways. The two highest noise readings (#11 and #5), both above 70 dBA, were taken along Highway 111. The next three highest noise readings (#4, #8, and #3), all between 65 and 70 dBa, were taken along Harrison Street. Of the remaining six readings, only two (#10 and #7), were above 65 dBA. Reading #10 was taken along Van Buren Street south of Avenue 48 and Reading #7 was taken along 52nd Avenue west of Education Way, both of which are also roadways with relatively high traffic volumes. It is worth noting that State Route 86S, although it is a high-volume roadway, does not produce high noise levels west of the Whitewater River (see Reading #6), apparently because the levees on either side of the river act as noise barriers to developed areas on the west side of the river. Also, aircraft overflights, even in the southern part of the city closest to Jacqueline Cochran Regional Airport, were minimal and did not make a substantial contribution to noise levels. As discussed under the *Regulatory Setting* section of this chapter of the EIR and shown in Table 4.10-3 of that section, the City's exterior noise standard for Residential, Institutional, and Open Space uses is 65 dBA. The locations discussed above with recorded noise levels in excess of 65 dBA are therefore roadway segments where noise-sensitive receptors, if they are located close enough to the roadway, may experience noise levels in excess of City standards if these noise levels are not properly attenuated.

Table 4.10-1 Noise Monitoring Results

	Measurement Location	Primary Noise Source	Sample Time	Leq (dBA)
1.	7th Street, west of Palm Avenue in front of Palm View Elementary School, approximately 45 feet from the centerline of 7th Street.	7th Street	9:49 AM	51.4
2.	Shady Lane Park, northeast corner of 52nd Avenue and Shady Lane, approximately 50 feet from the centerline of 52nd Avenue.	52nd Avenue	10:22 AM	62.7
3.	Harrison Street, between 6th Street and Bagdad Avenue, approximately 45 feet from the centerline of Harrison Street.	Harrison Street	11:00 AM	68.1
4.	Harrison Street south of intersection with Westerfield Way/1st Street, approximately 45 feet from the centerline of Harrison Street.	Harrison Street	11:30 AM	69.9
5.	Highway 111, between 1st Street and Avenue 50, opposite Coronet Concrete factory, approximately 35 feet from the centerline of Highway 111.	Highway 111	12:08 PM	72.0
6.	Approximately 230 feet east of the east end of Las Flores Avenue and 1,000 feet southwest of the edge of State Route 86S.	State Route 86S	12:42 PM	44.9
7.	52nd Avenue west of Education Way, approximately 50 feet from the centerline of 52nd Avenue and 670 feet south of Valle del Sol Elementary School.	52nd Avenue	1:19 PM	65.8
8.	Harrison Street south of Valley Road, approximately 68 feet from the centerline of Harrison Street and 330 feet west of Valley View Elementary School.	Harrison Street	1:56 PM	68.6
9.	Van Buren Street north of Airport Boulevard, approximately 20 feet from the centerline of Van Buren Street and directly across from Coachella Valley High School.	Van Buren Street	2:26 PM	62.5
10.	Van Buren Street south of Avenue 48, approximately 30 feet from the centerline of Van Buren Street and 820 feet south of Martin Van Buren Elementary School.	Van Buren Street	2:58 PM	66.1
11.	Highway 111 south of Ed Mitchell Drive, approximately 50 feet from the centerline of Highway 111.	Highway 111	3:24 PM	74.2

Source: Rincon Consultants, Inc. field measurements taken with an ANSI Type II Integrating sound level meter on Tuesday April 2, 2013.

See Appendix 11.4 for noise monitoring data sheets

Table 4.10-2

Noise Modeling Results, Existing Conditions (2007)

Roadway	Road Segment	ADT	Peak Hour Trips	Distance from Centerline (feet)	Average Speed	Leq (dBA)	Equivalent field reading	Dist. (feet) to 70 dBA CNEL contour (feet)	Dist. (feet) to 65 dBA CNEL contour (feet)	Dist (feet) to 60 dBA CNEL contour (feet)
SR-86S	I-10 to Ave 48	26,500	2,650	100	65	74.4	None	196	423	912
	Ave 48 to Ave 52	25,000	2,500	100	65	74.1	None	188	404	871
	Ave 52 to Airport Blvd	25,000	2,500	100	65	74.1	None	188	404	871
	South of Airport Blvd	16,300	1,630	100	65	72.2	None	140	302	651
I-10	West of Dillon Road	24,000	2,400	100	65	73.9	None	182	392	845
	East of Dillon Road	22,000	2,200	100	65	73.5	None	171	369	794
Grapefruit Blvd	Ave 48 to Ave 49	32,900	3,290	50	50	75.1	74.2	100	236	508
	Ave 49 to Harrison Street	30,000	3,000	50	50	74.7	None	103	222	477
	Harrison Street to Ave 50	12,500	1,250	35	40	70.7	None	39	84	181
	Ave 50 to Ave 52	14,000	1,400	35	40	71.2	72.0	42	91	195
	Ave 52 to Tyler St	14,500	1,450	35	50	73.9	None	64	137	296
	Tyler St to Ave 54	11,200	1,120	35	50	72.8	None	54	116	250
	Ave 54 to Airport Blvd	10,700	1,070	35	50	71.2	None	42	91	195
Harrison Street	Grapefruit Blvd to Ave 50	21,900	2,190	50	40	70.6	None	55	118	254
	Ave 50 to Ave 51	23,700	2,370	50	40	70.9	None	57	124	266
	Ave 51 to Ave 52	21,900	2,190	50	40	70.6	68.1	55	118	254
	Ave 52 to Ave 53	19,300	1,930	50	45	70.0	68.6	50	108	232
	Ave 53 to Ave 54	11,200	1,120	50	45	67.7	None	35	76	163
Van Buren Street	Ave 48 to Ave 49	10,600	1,060	30	50	68.8	None	29	63	135
Calhoun Street	Ave 48 to Ave 49	10,600	1,060	30	50	68.8	None	29	63	135
Jackson Street	Ave 48 to Ave 49	11,200	1,120	30	50	69.0	None	30	65	139
Avenue 48	Jackson St to Calhoun St	10,400	1,040	30	45	70.1	None	36	77	165
	Calhoun St to Van Buren St	11,800	1,180	30	45	70.7	None	39	84	181
	Van Buren St to Grapefruit Blvd	9,900	990	35	45	69.9	None	34	74	160
Dillon Road	Grapefruit Blvd to SR-86S	15,300	1,530	35	45	71.8	None	46	99	214
	SR-86S to I-10, northbound	11,300	1,130	35	45	70.5	None	38	81	175
	SR-86S to I-10, southbound	17,000	1,700	35	45	72.3	None	50	107	231
Avenue 50	Calhoun St to Van Buren St	10,000	1,000	40	45	69.5	None	37	80	172
	Van Buren St to Frederick St	10,900	1,090	40	45	69.9	None	39	85	183
	Frederick St to Harrison St	10,200	1,020	40	45	69.6	None	38	81	175
Avenue 52	Frederick St to Harrison St	10,400	1,040	50	45	69.8	None	48	104	225
	Harrison St to Grapefruit Blvd	13,600	1,360	50	45	71.0	62.7	58	126	271

Sources: City-wide traffic study conducted by Urban Crossroads on March 20, 2007; Equiv. field readings from April 2013 field visit using ANSI Type II Integrating sound level meter;.

Grayed out cells are within the right-of-way.

See Appendix 11.4 for noise monitoring data sheets.

Existing Noise Modeling

Existing roadway noise levels were also quantified using the Federal Highway Administration Traffic Noise Model (TNM®), based on average daily traffic (ADT) data obtained from a city-wide traffic study conducted by Urban Crossroads on March 20, 2007. The TNM Model noise level estimates are based on traffic volume, vehicle mix, and vehicle speed to estimate roadway noise levels in Leq (dBA). Table 4.10-2 translates these Leq levels into CNEL levels to express distances to noise contours, with peak hour Leq assumed to approximate CNEL, per HUD regulations (24 CFR See 51.106(a)(1) and 51.106(a)(2)). An attenuation rate of 4.5 dBA per doubling of distance was used, to account for the fact that the modeled roadways are relatively lightly travelled and the flow of traffic is therefore not constant. Roadway noise level estimates do not account for intervening barriers or topography that may shield individual receptors from the noise source. Therefore, the levels that are presented in this section represent a reasonable, conservative worst-case estimate of noise levels. Also, this data is for the purpose of creating noise contours, and does not represent a specific estimate of sound levels at any particular site. For technical data associated with the noise modeling, please refer to Appendix 11.4.

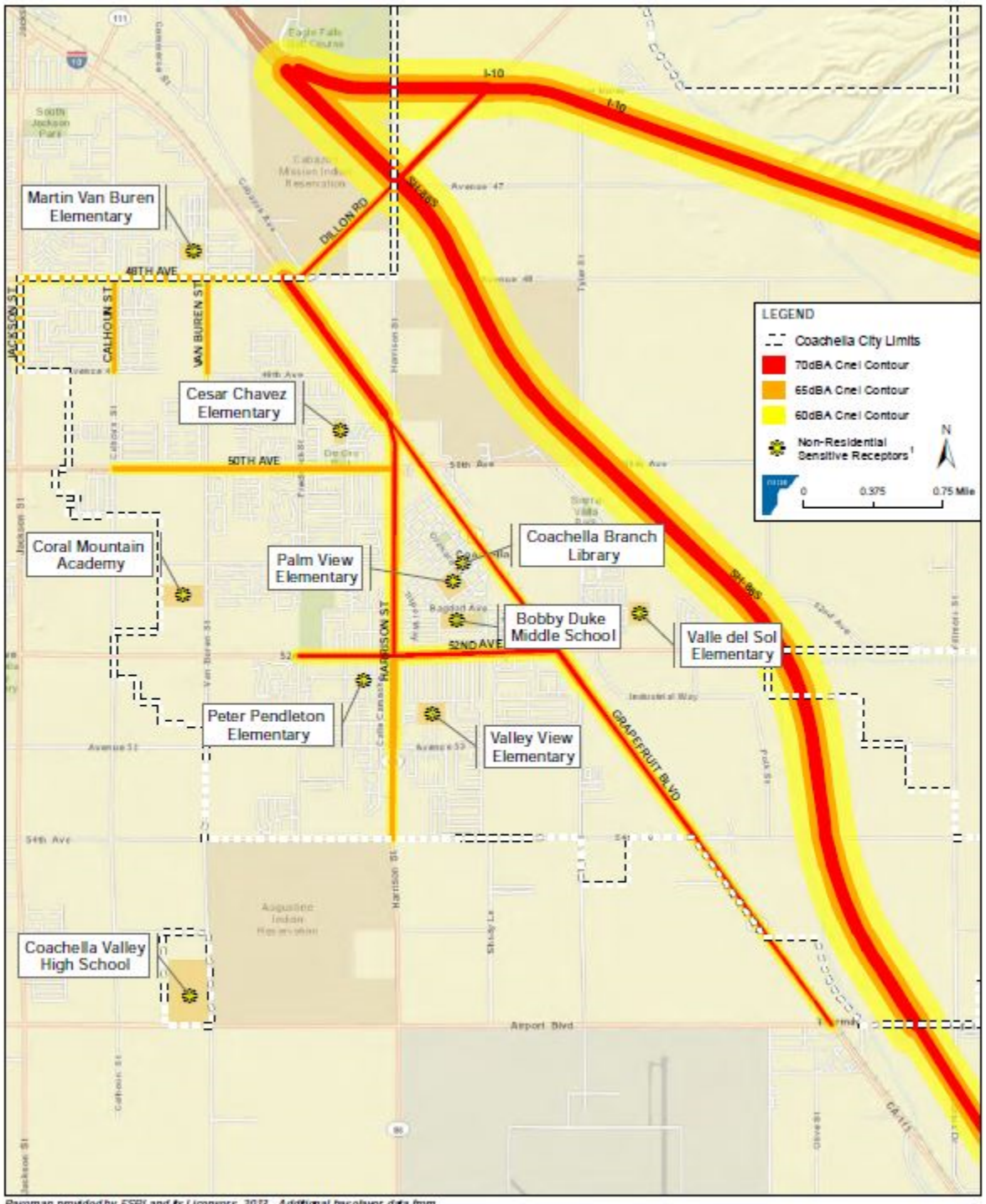
In general, the noise levels obtained through the TNM model are in agreement with those obtained through the readings obtained in roughly equivalent locations during the community noise survey, with all but one of the equivalent noise readings within 3 dBA of the modeled noise level. The equivalent field reading on Avenue 52 between Harrison Street and Grapefruit Boulevard was substantially lower than the modeled noise level, but this was because of much lower traffic levels on this street segment during this noise reading (79 vehicles over 15 minutes, corresponding to 316 trips per hour), which was taken outside peak traffic hours at 10:22 AM, than the 1,360 trips expected during the peak traffic hour used in the TNM model. When 316 trips per hour were used in the TNM model, a noise level of 64.7 Leq (dBA) was obtained through the TNM model, which is within 2 dBA of the field reading.

Existing Noise Contours

The results of the noise modeling are illustrated in Figure 4.10-3, a map of existing traffic noise contours along the roadways that are the major source of noise in and immediately around Coachella. Noise contours represent lines of equal noise exposure, just as the contour lines on a topographic map represent lines of equal elevation. As shown in Figure 4.10-3, existing peak noise levels along SR-86S, I-10, Dillon Road, Grapefruit Boulevard, and parts of Harrison Street and Avenue 52 are now at or slightly above 70 dBA CNEL. Noise levels exceed 65 dBA along all modeled roadways. The noise contours for Avenue 52 between Harrison Street and Grapefruit Boulevard were extended east along Avenue 52 to SR-86S, even though they were not modeled in the 2007 Urban Crossroads traffic study, because it is reasonable to assume that traffic levels would be relatively similar on both segments of Avenue 52. This assumption is supported by the fact that the noise level recorded on this segment during the community noise survey (#7 in Table 4.10-1) was 65.8 dBA, which is similar to the 62.7 dBA recorded on the segment of Avenue 52 between Harrison Street and Grapefruit Boulevard.

Comparing these noise levels to the City's exterior noise standards shown in Table 4.10-3 below under *Regulatory Setting* reveals that land uses in close proximity to these roads, such as residences and certain parks, may currently be exposed to noise levels exceeding the City's 65 dBA CNEL exterior noise standard for residential and other noise-sensitive land uses. Schools in the community are not located on these roads, and thus are not exposed to noise levels that exceed the City's 65 dBA CNEL exterior noise standard. The Coachella Branch Library is also a noise-sensitive land use, but one for which the City does not have an exterior noise standard. It is also not in an area exposed to noise levels in excess of 65 dBA CNEL. The Noise Compatibility Contours Map for Jacqueline Cochran

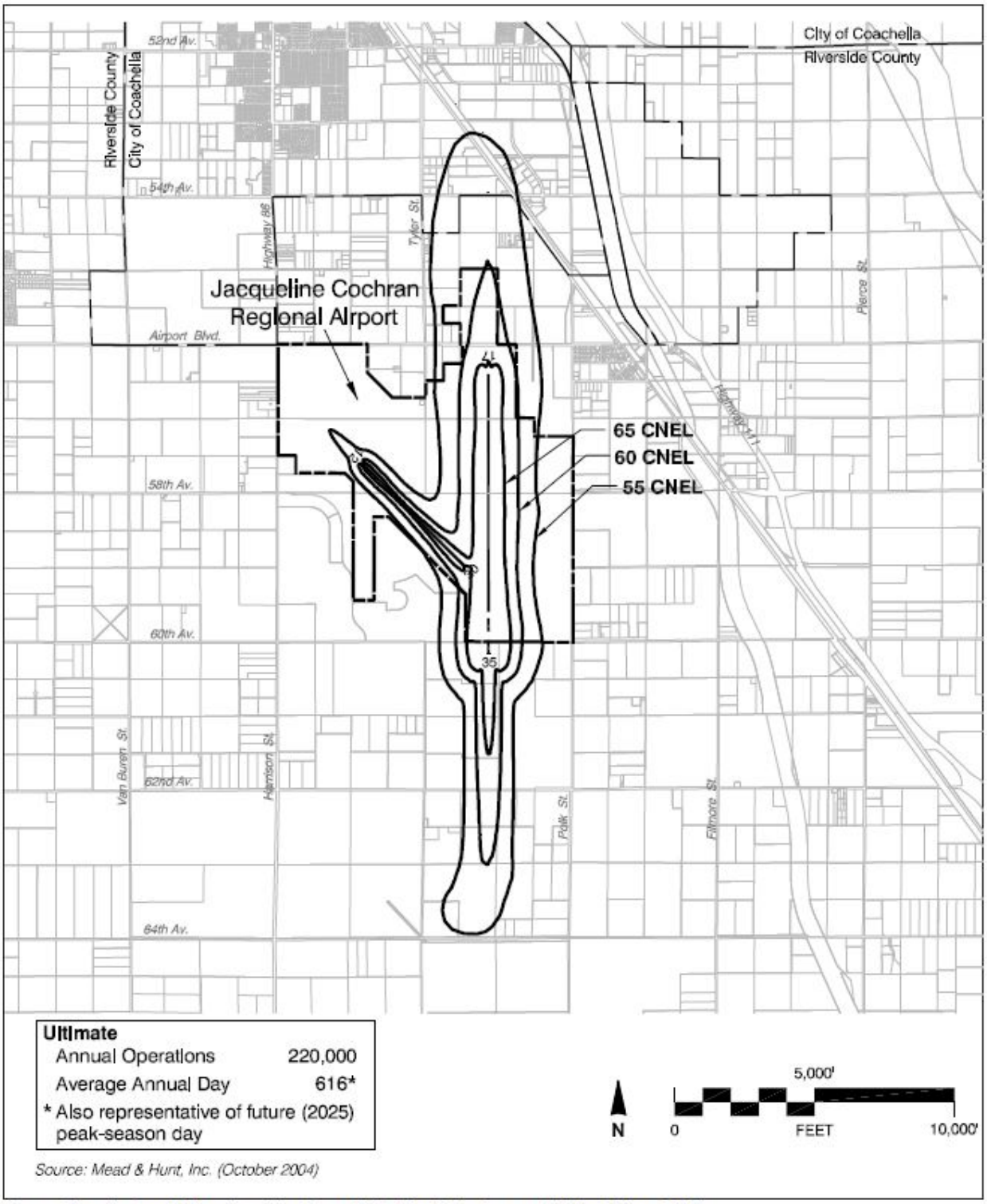
Figure 4.10-3: Existing Roadway Noise Contours



Basemap provided by ESRI and its Licensors, 2013. Additional baselayer data from Riverside County Transportation & Land Management Agency, January 2013.

[1]The location of noise-sensitive residential receptors is not shown because residential neighborhoods are located throughout Coachella. Please refer to the Land Use section of this General Plan for a map of different land uses with the community.

Figure 4.10-4: Airport Noise Compatibility Contours



Source: Riverside County Airport Land Use Compatibility Plan Policy Document (Adopted June 2005)

Regional Airport from the Riverside County Airport Land Use Compatibility Plan Policy Document, which shows existing and expected future noise contours for this facility, is shown in Figure 4.10-4. It shows that the airport's 65 dBA CNEL noise contour does not extend into Coachella.

REGULATORY SETTING

Federal Noise Policies

The United States Noise Control Act of 1972 (NCA) recognized the role of the Federal government in dealing with major commercial noise sources in order to provide for uniform treatment of such sources. Because Congress has the authority to regulate interstate and foreign commerce, regulation of noise generated by such commerce also falls under congressional authority. The Federal government specifically preempts local control of noise emissions from aircraft, railroads and interstate highways.

State Noise Policies

Title 24 of the California Code of Regulations codifies Sound Transmission Control requirements establishing uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings. Specifically, Title 24 states that interior noise levels attributable to exterior noise sources shall not exceed 45 dBA CNEL in any habitable room of a new building. The State has also adopted guidelines for land use compatibility and community noise environment in the "Guidelines for the Preparation and Content of Noise Elements of the General Plan," (Office of Noise Control, California Department of Health, 2003).

City of Coachella Noise Guidelines and Regulations

The State of California requires each City and County to adopt a Noise Element as part of its General Plan. Such Noise Elements must contain a Land Use/Noise compatibility matrix. A recommended (but not mandatory) matrix is presented in the "Guidelines for the Preparation and Content of Noise Elements of the General Plan," (Office of Noise Control, California Department of Health, 2003). The City of Coachella Land Use/Noise Compatibility Matrix, shown in Figure 4.10-5, is based on and is very similar to the California Land Use/Noise Compatibility Matrix. It clearly defines compatible, normally compatible, normally incompatible and clearly incompatible noise exposure levels by land use category. These standards are used as a guide to define where placement of certain land uses is considered acceptable. The City's Interior and Exterior Noise Standards, shown in Table 4.10-3, define the maximum acceptable exterior and interior noise levels that should be achieved after placement of the land use.

The City also implements and enforces noise control through its Municipal Code. Chapter 7.04 of the Municipal Code, *Noise Control*, sets both daytime and nighttime sound level limits for residential and commercial zones; prohibits any person or property owner within the city to create excessive, impulsive or intrusive noise or vibration that annoys or disturbs persons of ordinary sensibilities; defines certain acts as disturbing, excessive or offensive noises; sets forth special provisions and exemptions; sets forth permitted hours for construction activities and property maintenance activities; and sets forth certain provisions for enforcement of these standards. Chapter 7.05 of the Municipal Code, *Multiple Responses to Loud or Unruly Parties, Gatherings or Other Similar Events*, declares such events to be a public nuisance and sets forth provisions for fining the parties responsible for such events. These standards are discussed, as applicable, within the *Environmental Impacts and Mitigation* section of this chapter of the EIR.

Figure 4.10-5: Coachella Land Use/Noise Compatibility Matrix

LAND USE CATEGORIES		CNEL						
CATEGORIES	USES	55	60	65	70	75	80	
RESIDENTIAL	Single Family, Duplex, Multiple Family							
RESIDENTIAL	Mobile Homes							
COMMERCIAL - Regional, District	Hotel, Motel, Transient Lodging							
COMMERCIAL - Regional, Village District, Special	Commercial Retail, Bank, Restaurant, Movie Theater							
COMMERCIAL INDUSTRIAL	Office Building, Research and Development, Professional Offices, City Office Building							
COMMERCIAL - Recreation INSTITUTIONAL - Civic Center	Amphitheater, Concert Hall Auditorium, Meeting Hall							
COMMERCIAL - Recreation	Children's Amusement Park, Miniature Golf Course, Go-cart Track, Equestrian Center, Sports Club							
COMMERCIAL - General, Special INDUSTRIAL, INSTITUTIONAL	Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities							
INSTITUTIONAL - General	Hospital, Church, Library, School Classroom							
OPEN SPACE	Parks							
OPEN SPACE	Golf Couse, Cemeteries, Nature Centers, Wildlife Reserves, Wildlife Habitat							
AGRICULTURE	Agriculture							

INTERPRETATION

ZONE A (GREEN) CLEARLY COMPATIBLE	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
ZONE B (YELLOW) NORMALLY COMPATIBLE	New construction or development should be undertaken only after an analysis of the noise reduction requirements is made and needed noise insulation features included in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning will normally suffice.
ZONE C (ORANGE) NORMALLY INCOMPATIBLE	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.
ZONE D (RED) CLEARLY INCOMPATIBLE	New construction or development should generally not be undertaken.

* Construction of new residential uses will not be allowed within the 65 dBA CNEL contour for airport noise.

Source: City of Coachella General Plan Noise Element Background Study, November 1996.

Table 4.10-3 COACHELLA INTERIOR AND EXTERIOR NOISE STANDARDS

LAND USE CATEGORIES		ENERGY AVERAGE CNEL (DB)	
CATEGORIES	USES	INTERIOR[1]	EXTERIOR[2]
RESIDENTIAL	Single Family, Duplex, Multiple Family	45[3]	65
	Mobile Homes	-----	65[4]
COMMERCIAL INDUSTRIAL INSTITUTIONAL	Hotel, Motel, Transient Lodging	45	65[5]
	Commercial Retail, Bank, Restaurant	55	----
	Office Building, Research and Development, Professional Offices, City Office Building	50	----
	Amphitheater, Concert Hall, Amphitheater, Meeting Hall	45	----
	Gymnasium (Multipurpose)	50	----
	Sports Club	55	----
	Manufacturing, Warehousing, Wholesale, Utilities	65	----
	Movie Theaters	45	----
INSTITUTIONAL	Hospitals, School classroom	45	65
	Church, Library	45	
OPEN SPACE	Parks	----	65

INTERPRETATION

1. Indoor environment excluding: bathrooms, toilets, closets, corridors.
2. Outdoor environment limited to:
   - Private yard of single family residence
   - Multi-purpose private patio or balcony which is served by means of exit from inside
   - Mobile home Park
   - Hospital patio
   - Park's picnic area
   - School's playground
   - Hotel and motel recreation area
3. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of the Uniform Building Code.
4. Exterior noise level should be such that interior noise level will not exceed 45 CNEL.
5. Except those areas affected by aircraft noise.

Source: City of Coachella General Plan Noise Element Background Study, November 1996.

ENVIRONMENTAL IMPACTS AND MITIGATION

SIGNIFICANCE CRITERIA

The analysis of the proposed CGPU's noise impacts focuses on its impact on existing noise-sensitive land uses and the impact of existing and future noise sources upon noise-sensitive uses allowed under the CGPU. The CGPU would result in potentially significant impacts if it facilitated development that would result in substantial adverse physical impacts associated with any of the following conditions as defined under Appendix G of the State of California's CEQA Guidelines:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- 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 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.
- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

The applicable standards established in the local general plan and noise ordinance are listed above in the *Regulatory Framework* section. The threshold to determine excessive groundborne vibration or noise is derived from the May 2006 Transit Noise and Vibration Impact Assessment, which sets the following thresholds:

- 65VdB where low ambient vibration is essential for interior operations, such as hospitals and recording studios.
- 72 VdB for residences and buildings where people normally sleep, including hotels.
- 75 VdB for institutional land uses with primary daytime use, such as churches and schools.
- 100 VdB for physical damage to buildings.

EXCEEDANCE OF NOISE STANDARDS

Impact 4.10-1: Would the Proposed Project 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?

Significance: Less than significant.

The proposed Coachella CGPU would create a significant impact if it conflicted with policies in the local general plan or noise ordinance or applicable standards of other agencies setting maximum noise levels for different land uses.

Locations throughout Coachella would experience increased noise levels as a result of the growth called for under the CGPU. However, as already described under Existing Noise Conditions and Sources and Existing Noise Contours, because automobile traffic is the most significant source of noise in Coachella, the locations that would be exposed to the greatest noise increases would be areas in proximity to high-volume roadways. The analysis contained within this section therefore relies primarily upon analysis of the location of current and potential future noise-sensitive receptors in relation to existing and projected future roadway noise contours.

The location of future noise sources and noise-sensitive receptors was determined by extrapolating the findings of the analysis of the existing noise environment to future conditions. Because traffic noise is expected to remain the primary source of noise in the community, the same calibrations that were made to the results of the computer noise modeling of existing traffic noise based on the results of the community noise survey were also used to calibrate the results of computer noise modeling of future traffic noise based on future (2035) traffic volumes. The results of the computer noise model were then used to produce future noise contour maps of the community. It should be noted that 2035 traffic volumes were in some cases for slightly different street segments than for Existing (2007) conditions. Also, average speeds were reduced within the computer noise model along certain roadway segments projected to have heavy traffic levels and levels of service (LOS) of E or F in order to account for peak hour congestion along these segments.

The results of the noise modeling for future conditions are shown in Table 4.10-3 and Figure 4.10-6. As shown in Table 4.10-3 and Figure 4.10-6, by the year 2035, peak noise levels along I-10, SR-86S, Dillon Road, as well as certain segments of Grapefruit Boulevard and Avenue 52, are expected to exceed 75 dBA CNEL. Peak noise levels along all modeled segments are expected to exceed 70 dBA CNEL, with the 65 dBA CNEL contour expected to extend over 100 feet from the centerline of all modeled roadways. Comparing these noise levels to the City's exterior noise standards shown in Table 4.10-3 reveals that noise-sensitive land uses in very close proximity to these roads, including residences and parks, are expected to be exposed to noise levels exceeding the City's 65 dBA CNEL exterior noise standard for residential uses. As shown in Figure 4.10-6, the only school that might be within the 65 dBA CNEL contour would be Coachella Valley High School, and only in the area immediately bordering Van Buren Street.

Given these projected future noise levels, implementation of the proposed CGPU could expose either existing or future noise-sensitive receptors in these areas to noise levels above the City's 65 dBA CNEL exterior noise standard for residential uses. Figure 3-23 of the CGPU shows that, generally, both existing residential neighborhoods and areas planned for residential growth are not immediately adjacent to the roadways that are the community's greatest noise generators (SR-86S, I-10, Highway 111, and Dillon Road).

Table 4.10-4 Noise Modeling Results, FUTURE Conditions (2035)

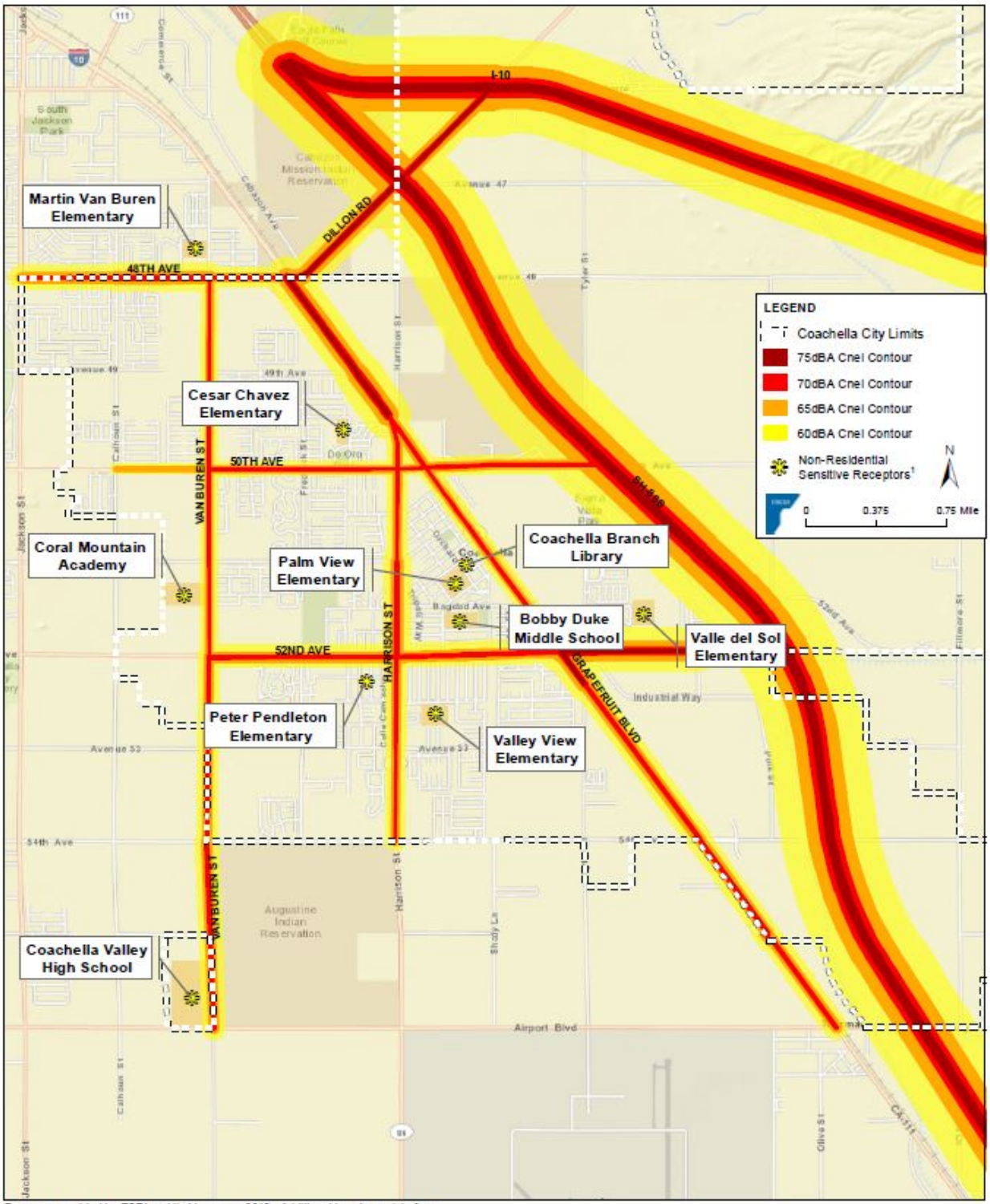
Roadway	Road Segment	ADT	Peak Hour Trips	Distance from Centerline (feet)	Average Speed	Leq (dBA)	Dist. (feet) to 75 dBA CNEL contour (feet)	Dist. (feet) to 70 dBA CNEL contour (feet)	Dist. (feet) to 65 dBA CNEL contour (feet)	Dist (feet) to 60 dBA CNEL contour (feet)
SR-86S	North of Airport Blvd	81,670	8,167	100	55	77.0	136	293	631	1,359
	South of Airport Blvd	86,890	8,689	100	55	77.3	142	307	661	1,423
I-10	West of Dillon Road	87,000	8,700	100	55	77.3	142	307	661	1,423
	East of Dillon Road	78,000	7,800	100	55	76.8	132	284	612	1,318
Grapefruit Blvd	Ave 48 to Ave 49	54,300	5,430	50	45	75.9	57	124	266	574
	Ave 49 to Harrison Street	64,970	6,497	50	45	76.7	65	140	301	649
	Harrison Street to Ave 50	32,150	3,215	35	40	74.8	34	73	158	339
	Ave 50 to Ave 52	24,310	2,431	35	40	73.6	28	61	131	282
	Ave 52 to Tyler St	43,110	4,311	35	45	77.4	51	109	235	506
	Tyler St to Ave 54	21,320	2,132	35	50	75.6	38	83	178	384
	Ave 54 to Airport Blvd	19,210	1,921	35	50	75.1	36	77	165	355
Harrison Street	Grapefruit Blvd to Ave 50	26,600	2,660	50	40	71.4	29	62	134	288
	Ave 50 to Ave 51	26,420	2,642	50	40	71.4	29	62	134	288
	Ave 51 to Ave 52	40,370	4,037	50	35	71.8	31	66	142	306
	Ave 52 to Ave 53	28,130	2,813	50	40	71.7	30	65	140	301
	Ave 53 to Ave 54	35,550	3,555	50	35	71.2	28	60	130	279
Van Buren Street	Ave 48 to Ave 49	27,420	2,742	35	40	72.9	25	55	118	254
	Ave 50 to Ave 52	27,520	2,752	35	40	72.9	25	55	118	254
	Ave 52 to Ave 54	35,490	3,549	35	40	74.0	30	65	139	300
	Ave 54 to Ave 56	41,200	4,120	35	40	74.7	33	72	155	334
Avenue 48	Jackson St to Calhoun St	31,960	3,196	35	45	75.0	35	75	162	350
	Calhoun St to Van Buren St	32,070	3,207	35	45	75.0	35	75	162	350
	Van Buren St to Grapefruit Blvd	26,190	2,619	35	45	74.1	30	66	141	305
Dillon Road	Grapefruit Blvd to SR-86S	54,830	5,483	35	45	77.4	51	109	235	506
	SR-86S to I-10	51,750	5,175	35	45	77.1	48	104	224	483
Avenue 50	Calhoun St to Van Buren St	20,570	2,057	40	45	72.7	28	61	130	281
	Van Buren St to Harrison St	19,190	1,919	40	45	72.3	26	57	123	264
	Harrison St to Grapefruit Blvd	17,450	1,745	40	45	71.9	25	54	115	249
	Grapefruit Blvd to SR-86S	34,920	3,492	40	40	73.5	32	68	147	318
Avenue 52	Van Buren St to Harrison St	19,320	1,932	50	45	72.5	34	73	158	341
	Harrison St to Grapefruit Blvd	20,640	2,064	50	45	72.8	36	77	166	357
	Grapefruit Blvd to Enterprise Way	49,250	4,925	50	45	76.6	64	138	297	639
	Enterprise Way to SR-86S	21,170	2,117	50	45	72.9	36	78	168	362

Sources: Fehr & Peers, April 2014.

Note that grayed out cells are within the right-of-way.

See Appendix 11.4 for noise monitoring data sheets.

Figure 4.10-6: Future Roadway Noise Contours



Basemap provided by ESRI and its Licensors, 2013. Additional baselayer data from Riverside County Transportation & Land Management Agency, January 2013.

[1]The location of noise-sensitive residential receptors is not shown because residential neighborhoods are located throughout Coachella. Please refer to the Land Use section of this General Plan for a map of different land uses with the community.

One exception to this conclusion may be residential areas immediately adjacent to I-10 within the La Entrada Specific Plan area (Subarea 14 on Figures 3-23 and 3-24 of the CGPU). In this area (I-10 east of Dillon Road), the 65 dBA contour would extend 612 feet from the roadway centerline. Review of Figure 3-23 and the La Entrada Specific Plan shows that the residential areas adjacent to I-10 feature setbacks and buffers from the roadway that would most likely put them outside the actual area exposed to 65 dBA CNEL levels. Another exception may be in the Downtown Expansion area (Subarea 6 on Figures 3-23 and 3-24 of the CGPU). The CGPU's description of this subarea states that "Multi-family residential uses may be located on the edges of this area and adjacent to existing residential development, such as the area east of Tyler Street", which creates the possibility that multi-family residential uses may in the future be located near Grapefruit Boulevard and the railroad tracks. However, in this area (Grapefruit Boulevard from Avenue 50 to Avenue 52) the 65 Dba CNEL contour would extend 131 feet from the centerline of the roadway, which would not extend beyond the railroad tracks onto land available for new development. Noise from the railroad tracks is and would continue to be intermittent, and traffic on this freight rail line would not significantly increase due to implementation of the CGPU to the extent that it would become a major noise source that would have the potential to exceed the City's 65 dBA CNEL standard.

Noise sources in Coachella can be divided into two basic categories, transportation sources (primarily traffic) and non-transportation sources. As already stated, transportation sources are by far the largest contributor to noise in Coachella. A local government has little direct control of transportation noise at the source. State and Federal agencies have the responsibility to control vehicle noise emission levels. The most effective methods local governments have to mitigate transportation noise is through land use planning that reduces vehicle trips and physical interventions that reduce the impact of the noise on the community (e.g., building and site design that shields sensitive receivers from noise sources).

Although noise barriers and setbacks have historically been common methods of protecting noise-sensitive land uses from excessive transportation-related noise in many communities, recent attempts to emphasize pedestrian-friendly design and mixed use development have led to consideration of alternative strategies for dealing with transportation-related noise sources. These alternative strategies include land use planning to reduce and slow (or "calm") vehicle trips, and incorporation of noise-attenuating features into the architectural design of projects.

Various goals and policies of the proposed CGPU, such as Noise Element Policies 1.2 and 3.2, listed below, would help promote such alternative noise-reduction strategies, while also ensuring that future development would not expose noise-sensitive receptors to noise levels in excess of the City's standards.

> 1.2 **Noise Analysis and Mitigation.** Require projects involving new development or modifications to existing development to implement mitigation measures, where necessary, to reduce noise levels to at least the normally compatible range shown in the City's Land Use/Noise Compatibility Matrix in Figure 10-1[1]. Mitigation measures should focus on architectural features and building design and construction, rather than site design features such as excessive setbacks, berms and sound walls, to maintain compatibility with adjacent and surrounding uses.

[1] Figure 10-1 of the General Plan is Figure 4.10-5 of this EIR.

3.2 **Traffic Calming.** Where roadway noise exceeds the normally compatible range shown in the City's Land Use/Noise Compatibility Matrix shown in Figure 10-1, consider the implementation of traffic calming measures such as reduced speed limits or roadway design features to reduce noise levels through reduced vehicle speeds and/or diversion of vehicle traffic.

Future development in the city of Coachella carried out under the proposed CGPU would be subject to the policies of the General Plan discussed above, which would ensure that such development would not exceed the City's adopted noise standards. This impact would be less than significant.

Mitigation Measures

With implementation of the policies contained within the proposed CGPU, this impact would be less than significant, and no mitigation is required.

GROUNDBORNE NOISE AND VIBRATION

Impact 4.10-2: Would the Proposed Project expose persons to or generate excessive groundborne vibration or groundborne noise levels?

Significance: Less than significant.

Construction and operation of projects carried out under the Proposed Project would create a significant impact if it resulted in groundborne vibration levels that could cause disturbance to sensitive receptors or physical damage to fragile buildings.

Groundborne vibration in Coachella is generated primarily by two sources: temporary construction activities and permanent traffic on roadways and railways. Both of these activities, while they are occurring, create "frequent" vibration events as defined in the FTA's May 2006 *Transit Noise and Vibration Impact Assessment*, which sets a 72 VdB threshold for frequent events affecting residences and buildings where people normally sleep and a 100 VdB threshold for minor cosmetic damage to fragile buildings (vibration levels below 100 VdB produce no damage to buildings).

Construction activities that would occur under the proposed CGPU would generate groundborne vibration. Table 4.10-5 below identifies vibration levels for common types of construction equipment.

Under the proposed CGPU, construction activities would occur at discrete locations in the city and vibration from such activity may impact existing buildings and their occupants if they are located close enough to the construction sites. Based on the information presented in Table 4.10-5, if sensitive receptors are located close enough to potential project construction sites these sensitive receptors (such as residences or schools) could experience vibration levels exceeding the FTA's vibration impact threshold of 72 VdB. However, this threshold is for residences where people normally sleep. Section 7.04.070 of the Coachella Municipal Code (CMC) specifically exempts noise sources associated with construction, erection, demolition, alteration, repair, addition to or improvement of any building, structure, road or improvement to realty, provided that such activities take place during daytime hours, as follows:

October 1st through April 30th

Monday – Friday: 6:00 a.m. to 5:30 p.m.
Saturday: 8:00 a.m. to 5:00 p.m.
Sunday: 8:00 a.m. to 5:00 p.m.
Holidays: 8:00 a.m. to 5:00 p.m.

May 1st through September 30th

Monday – Friday: 5:00 a.m. to 7:00 p.m.
Saturday: 8:00 a.m. to 5:00 p.m.
Sunday: 8:00 a.m. to 5:00 p.m.
Holidays: 8:00 a.m. to 5:00 p.m.

These restrictions on hours of construction would keep any such construction activities exceeding 72 VdB at the nearest sensitive receptor from significantly interfering with people's sleep.

Table 4.10-5 Vibration Source Levels for Construction Equipment

Equipment		*Approximate VdB*		
		25 Feet	*50 Feet*	*100 Feet*
Pile Driver (impact)	upper range	112	106	100
	typical	104	98	92
Pile Drive (sonic)	upper range	105	99	93
	typical	93	87	81
Large Bulldozer		87	81	75
Loaded Trucks		86	80	74
Jackhammer		79	73	67
Small Bulldozer		58	52	46

Source: FTA and US DOT, May 2006

As shown in Table 4.10-5, construction activities involving pile drivers can cause higher vibration levels with the potential to cause physical damage to nearby buildings. For example, at its upper range, an impact pile driver can produce 100 VdB at up to 100 feet from the source, which would exceed the FTA's threshold for minor cosmetic damage to fragile buildings. However, whether or not this would occur would depend on the circumstances of individual construction projects, such as whether or not they involve pile driving and their proximity to any fragile building. Section 7.04.030 of the CMC forbids any person to "make, continue, or cause to be made or continued, within the city limits, any disturbing, excessive, or offensive noise or vibration which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area or that is plainly audible at a distance greater than fifty

(50) feet from the source's point for any purpose." Although daytime construction noise would be exempt from this provision under Section 7.04.070 of the Coachella Municipal Code (CMC) as discussed above, construction vibration impacts would be subject to City review. The City reviews the potential for construction vibration impacts before it issues building permits, and would require measures to ensure that physical damage to neighboring building would not occur before issuing a building permit.

Automotive traffic on roadways and train traffic on railways also produce groundborne vibration. These sources of vibration are not governed by the CMC. As shown in Table 4.10-5, a loaded truck can produce 86 VdB at 25 feet, and 74 VdB at 100 feet. Such vibration levels may occasionally exceed the FTA's 72 VdB threshold, but would not exceed the 100 VdB threshold. Although the proposed CGPU may increase automotive traffic levels in Coachella as the community grows in population and accommodates new business activity, the same policies within the CGPU that would reduce impacts from auto traffic-related noise would also reduce impacts from auto traffic-related vibration.

Vibration levels from trains depend on the kind of train. Coachella already experiences freight rail traffic on the rail line that runs from northwest to southeast through the community along Highway 111. The trains running on these lines are generally referred to as "heavy rail". Vibration levels from heavy rail would be approximately 80 VdB (FTA, May 2006), which is lower than that of a loaded truck at 25 feet, and which would not exceed the 100 VdB threshold. Vibration from the railroad tracks is and would continue to be intermittent, and traffic on this freight rail line would not significantly increase due to implementation of the CGPU to the extent that it would expose persons to or generate excessive groundborne vibration or groundborne noise levels.

Future development in the city of Coachella carried out under the proposed CGPU would be subject to the City's standards and review process as discussed above, which would ensure that such development would not expose persons to or generate excessive groundborne vibration or groundborne noise levels. This impact would be less than significant.

Mitigation Measures

With implementation of City's standards and review process as discussed above, this impact would be less than significant, and no mitigation is required.

PERMANENTLY INCREASE AMBIENT NOISE LEVELS

Impact 4.10-3: Would the proposed CGPU result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Significance: Less than significant.

The proposed CGPU would create a significant impact if it resulted in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. As discussed under Impact 4.10-1, Coachella will experience increased noise along some roadway segments in the future due to increased traffic levels resulting from the growth anticipated under the proposed CGPU. However, implementation of policies within the proposed CGPU would minimize these impacts.

Existing and future 24-hour CNEL noise levels have been calculated for individual roadway segments within Coachella as part of the proposed CGPU and this EIR. Figure 3 shows the existing roadway noise contours, and Figure 6 shows the projected future roadway noise contours that were calculated using the Federal Highway Administration Traffic Noise Model (TNM®), as explained in the Existing Noise Contours section of this chapter of the EIR. Roadway noise contours are generated by a

computer model, and may not always reflect true noise conditions at a particular location. Intervening structures or other noise-attenuating obstacles between a roadway and a receptor may reduce roadway noise levels at that receptor. However, existing and future noise-sensitive receptors would be expected to experience noise levels very similar to those indicated by the noise contours. In general, it is easier to ensure proper noise attenuation for new uses, which can be required to incorporate noise-attenuating features into their design before they are built, than it is to ensure proper noise attenuation for existing uses, which cannot easily be redesigned or retrofitted to provide greater noise attenuation, and for which it is not always feasible to construct barriers between the sensitive receptor and the noise source.

As discussed under Impact 4.10-1, various policies in the Noise Element of the proposed CGPU would help mitigate the impact of traffic noise on sensitive receptors. For example, Policy 1.2 requires projects involving new development or modifications to existing development to implement mitigation measures, where necessary, to reduce noise levels to at least the normally compatible range shown in the City's Land Use/Noise Compatibility Matrix in Figure 5, and states that mitigation measures should focus on architectural features and building design and construction, rather than site design features such as excessive setbacks, berms and sound walls, to maintain compatibility with adjacent and surrounding uses. Policy 3.2 requires the City, where roadway noise exceeds the normally compatible range shown in the City's Land Use/Noise Compatibility Matrix shown in Figure 10-1, to consider the implementation of traffic calming measures such as reduced speed limits or roadway design features to reduce noise levels through reduced vehicle speeds and/or diversion of vehicle traffic. This policy may be particularly applicable where increased traffic noise affects existing uses which, as explained above, may not be able to easily be redesigned or retrofitted to provide greater noise attenuation, and for which it is not always feasible to construct barriers between the sensitive receptor and the noise source.

Other transportation noise sources such as noise from the railroad and from Jacqueline Cochran Regional Airport are not expected to significantly increase as a result of the proposed CGPU. As shown in Figure 4, the airport's current noise compatibility contours are also representative of future (2025) conditions. Traffic on the freight rail line that passes through Coachella along Highway 111 would not significantly increase due to implementation of the CGPU. Stationary noise sources will continue to be regulated by the provisions of the City's Municipal Code, as discussed under the Regulatory Setting section of this chapter of the EIR.

For the reasons discussed above, this impact is less than significant with implementation of the policies of the proposed CGPU and enforcement of the City's Noise Ordinance, and no mitigation is necessary.

Mitigation Measures

This impact is less than significant with implementation of the policies of the proposed CGPU and enforcement of the City's current regulations, and no mitigation is required.

TEMPORARY OR PERIODIC INCREASES IN NOISE LEVELS

Impact 4.10-4 Would the Proposed Project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Significance: Less than significant.

Construction and operation of projects carried out under the proposed CGPU would create a significant impact if it caused a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Although implementation of the proposed CGPU would expose noise-sensitive receptors to substantial temporary or periodic ambient noise increases,

implementation of policies within the proposed CGPU, as well as enforcement of the City's Noise Ordinance, would minimize these impacts.

Under the proposed CGPU, the primary source of temporary or periodic noise in Coachella would be construction activity and maintenance work, involving both on-site construction activity and the transport of workers and equipment to and from construction sites. Section 7.04.030 of the CMC forbids any person to "make, continue, or cause to be made or continued, within the city limits, any disturbing, excessive, or offensive noise or vibration which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area or that is plainly audible at a distance greater than fifty (50) feet from the source's point for any purpose", but Section 7.04.070 of the Coachella Municipal Code (CMC) specifically exempts from this requirement noise sources associated with construction, erection, demolition, alteration, repair, addition to or improvement of any building, structure, road or improvement to realty, provided that such activities take place during daytime hours, as listed under Impact 4.10-2 above. Additionally, Policy 2.2 of the Noise Element of the proposed CGPU requires the City to "Minimize stationary noise impacts on sensitive receptors and noise emanating from construction activities, private development/residences, landscaping activities, night clubs and bars and special events."

These requirements and policies would ensure that construction noise impacts do not create a significant adverse effect on sensitive receptors. This impact is therefore less than significant, and no mitigation is necessary.

Mitigation Measures

This impact is less than significant with implementation of the policies of the proposed CGPU and enforcement of the City's current regulations, and no mitigation is required.

AIRPORT NOISE

Impact 4.10-5 Would the Proposed Project expose people residing or working in the project area to excessive noise levels from a public or private airport within two miles of the project area?

Significance: Less than significant.

The proposed CGPU would create a significant impact if it exposed people residing or working in the project area to excessive noise levels from a public or private airport within two miles of the project area. Parts of the project area are located within the airport land use plan area of Jacqueline Cochran Regional Airport, which is the only public or private airport within two miles of Coachella (the next closest airport is located in Palm Springs, approximately 18 miles to the northwest of Coachella). However, the distribution of land uses under the proposed CGPU would not expose residents to excessive noise levels, which, along with implementation of policies within the proposed CGPU, would minimize these impacts.

Figure 4 shows the current and projected future (2025) noise contours from Jacqueline Cochran Regional Airport. As shown on this figure, noise levels above 55 dBA CNEL from the airport are almost completely outside of current city limits. The proposed General Plan Designation Map (Figure 3-23 of the proposed General Plan) shows that the City has designated areas within the airport's land use plan area as airport compatibility zones, reflective of the airport compatibility zones from the airport's land use plan. The CGPU also designates this area as Subarea 5 - Airport District. Its description of this subarea states that the final land use designation mix shall be 70 to 90 percent Industrial and up to 20 percent Suburban Retail District. Neither of these designations allow residential uses or other noise-

sensitive receptors, and development of these areas would therefore not expose noise-sensitive receptors to excessive noise levels from the airport. Additionally, Policy 1.5 of the Noise Element of the proposed CGPU requires the City to comply with all applicable policies of the Riverside County General Plan Noise Element relating to airport noise, including those policies requiring compliance with the airport land use noise compatibility plan for this airport.

The distribution of land uses called for under the proposed CGPU, as well as the CGPU policies discussed above, would ensure that the CGPU would not expose people residing or working in the project area to excessive noise levels from Jacqueline Cochran Regional Airport. This impact is therefore less than significant, and no mitigation is necessary.

Mitigation Measures

This impact is less than significant with implementation of the policies of the proposed CGPU, and no mitigation is required.

CUMULATIVE IMPACTS

Because the proposed project is a CGPU, which takes into account existing and potential development over approximately the next twenty years, the analysis of noise-related impacts contained within this chapter of the EIR is already cumulative in nature. Cumulative development in Coachella would add population, business, and traffic to the community. This cumulative development would also increase noise levels in the community, especially in the vicinity of its busiest roadways. However, this impact has already been analyzed and determined to be less than significant under Impact 4.10-3, which found that the CGPU's potential to result in a substantial permanent increase in ambient noise levels in the project vicinity is less than significant with implementation of the policies of the proposed CGPU and enforcement of the City's Noise Ordinance. This impact is therefore less than significant, and no mitigation is necessary.

Mitigation Measures

This impact is less than significant with implementation of the policies of the proposed CGPU, and no mitigation is required.

SIGNIFICANT AND UNAVOIDABLE IMPACTS

The proposed CGPU has no significant and unavoidable impacts.