

4.5 NOISE

The purpose of this section is to describe the existing (2000) and Year 2020 noise environment within Metropolitan Bakersfield. This section also provides an assessment of long-term noise impacts associated with traffic, rail lines, stationary sources, Meadows Field Airport, Bakersfield Municipal Airport and identifies corresponding goals, policies, standards and mitigation. The noise projections for the planning horizon year of 2020 are based upon vehicular traffic projections from the Kern Council of Governments (KERN COG).

ENVIRONMENTAL SETTING

NOISE SCALES AND DEFINITIONS

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 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 dBA (very quiet) to 100 dBA (very loud). Examples, of various sound levels in different environments are shown in Table 4.5-1, *Sound Levels and Human Response*.

Many 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.

Numerous methods have been developed to measure sound over a period of time. These methods include: 1) the Community Noise Equivalent Level (CNEL); 2) the Equivalent Sound Level (Leq); and 3) Day/Night Average Sound Level (Ldn). These methods are described below.

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL)

The predominant community noise rating scale used in California for land use compatibility assessment is the Community Noise Equivalent Level (CNEL). The CNEL reading represents the average of 24 hourly readings of equivalent levels, known as Leq's, based on an A-weighted decibel with upward adjustments added to account for increased noise sensitivity in the evening and night periods. These adjustments are +5 dBA for the evening, 7:00 p.m. to 10:00 p.m., and +10 dBA for the night, 10:00 p.m. to 7:00 a.m. CNEL may be indicated by "dBA CNEL" or just "CNEL".

**TABLE 4.5-1
SOUND LEVELS AND HUMAN RESPONSE**

Noise Source	dB(A) Noise Level	Response
	150	
Carrier Jet Operation	140	Harmfully Loud
	130	Pain Threshold
Jet Takeoff (200 feet; thence.) Discotheque	120	
Unmuffled Motorcycle Auto Horn (3 feet; thence.) Rock'n Roll Band Riveting Machine	110	Maximum Vocal Effort Physical Discomfort
Loud Power Mower Jet Takeoff (2000 feet; thence.) Garbage Truck	100	Very Annoying Hearing Damage (Steady 8-Hour Exposure)
Heavy Truck (50 feet; thence.) Pneumatic Drill (50 feet; thence.)	90	
Alarm Clock Freight Train (50 feet; thence.) Vacuum Cleaner (10 feet; thence.)	80	Annoying
Freeway Traffic (50 feet; thence.)	70	Telephone Use Difficult
Dishwashers Air Conditioning Unit (20 feet; thence.)	60	Intrusive
Light Auto Traffic (100 feet; thence.)	50	Quiet
Living Room Bedroom	40	
Library Soft Whisper (15 feet; thence.)	30	Very Quiet
Broadcasting Studio	20	
	10	Just Audible
	0	Threshold of Hearing
Source: Melville C. Branch and R. Dale Beland, <i>Outdoor Noise in the Metropolitan Environment</i> , 1970, page 2.		

LEQ

The Leq is the sound level containing the same total energy over a given sample time period. The Leq can be thought of as the steady sound level which, in a stated period of time, would contain the same acoustic energy as the time-varying sound level during the same period. Leq is typically computed over 1, 8 and 24-hour sample periods.

DAY NIGHT AVERAGE (LDN)

Another commonly used method is the day/night average level or Ldn. The Ldn 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 Leq. The Ldn is calculated by averaging the Leq's for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 p.m. to 7:00 a.m.), by 10 dBA to account for the increased sensitivity of people to noises that occur at night.

OTHER NOISE METRICS

The maximum noise level recorded during a noise event is typically expressed as Lmax. The sound level exceeded over a specified time frame can be expressed as Ln (i.e., L90, L50, L10, etc.). L50 equals the level exceeded 50 percent of the time, L10 ten percent of the time, etc.

As previously mentioned, people tend to respond to changes in sound pressure in a logarithmic manner. In general, a 3 dBA change in sound pressure level is considered a "just detectable" difference in most situations. A 5 dBA change is readily noticeable and a 10 dBA change is considered a doubling (or halving) of the subjective loudness. It should be noted that a 3 dBA increase or decrease in the average traffic noise level is realized by a doubling or halving of the traffic volume, or by about a 7 mile per hour (mph) increase or decrease in speed.

For each doubling of distance from a point noise source, the sound level will decrease by 6 dBA. In other words, if a person is 100 feet from a machine, and moves to 200 feet from that source, sound levels will drop approximately 6 dBA. For each doubling of distance from a line source, like a roadway, noise levels are reduced by 3 to 5 decibels, depending on the ground cover between the source and the receiver.

NOISE ATTENUATION

Noise barriers provide approximately a 5 dBA noise reduction (additional reduction may be provided with a barrier of appropriate height, material, location and length). A row of buildings provides up to 5 dBA noise reduction with a 1.5 dBA reduction for each additional row up to a maximum reduction of approximately 10 dBA. The exact degree of noise attenuation depends on the nature and orientation of the structure and intervening barriers.

FEDERAL NOISE STANDARDS

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. As 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, railroad and interstate highways.

The U.S. EPA has identified acceptable noise levels for various land uses, in order to protect public welfare, allowing for an adequate margin of safety, in addition to establishing noise emission standards for interstate commerce activities.

STATE NOISE STANDARDS

The Office of Noise Control in the State Department of Health Services has developed criteria and guidelines for local governments to use when setting standards for human exposure to noise and preparing noise elements for General Plans. These guidelines include noise exposure levels for both exterior and interior 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. The State indicates that locating units in areas where exterior ambient noise levels exceed 65 CNEL is undesirable. Whenever such units are to be located in such areas, the developer must incorporate into building design construction features that reduce interior noise levels to 45 dBA CNEL. Table 4.5-2, *Noise and Land Use Compatibility Matrix*, presents criteria used to assess the compatibility of proposed land uses with the noise environment. Table 4.5-3, *State Interior and Exterior Noise Standards*, indicates standards and criteria that specify acceptable limits of noise for various land uses throughout Metropolitan Bakersfield. These standards and criteria will be incorporated into the land use planning process to reduce future noise and land use incompatibilities. These tables are the primary tools, which allow Metropolitan Bakersfield to ensure integrated planning for compatibility between land uses and outdoor noise.

CITY AND COUNTY NOISE STANDARDS

The City of Bakersfield and County of Kern have adopted the noise standards by the Office of Noise Control. Maintenance of desirable noise exposures for sensitive areas (i.e., residential areas, schools, convalescent and acute care hospitals, parks and recreational areas) are addressed through consideration of sporadic noise normally associated with stationary land use. Thus, Table 4.5-4, *Noise Level Performance Standards*, provides a method of determining land use compatibility through the assignment of noise exceedence levels and time restrictions.

**TABLE 4.5-2
NOISE AND LAND USE COMPATIBILITY MATRIX**

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE			
	Ldn or CNEL, Dba			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low Density	50 - 60	60 - 70	70-75	75-85
Residential - Multiple Family	50 - 65	65 - 70	70 - 75	75 - 85
Transient Lodging – Motel, Hotels	50 - 65	65 - 70	70 - 80	80 - 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 60	60 - 65	65 - 80	80 - 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 - 70	NA	70 - 85
Sports Arenas, Outdoor Spectator Sports	NA	50 - 75	NA	75 - 85
Playgrounds, Neighborhood Parks	50 – 67.5	NA	67.5 - 75	75 - 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	NA	70 - 80	80 - 85
Office Buildings, Business Commercial and Professional	50 – 67.5	67.5 - 77.5	77.5 - 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	80 - 85	NA

Source: Modified from U.S. Department of Housing and Urban Development Guidelines and State of California Standards..

Notes: 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, 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.

NA: Not Applicable

**TABLE 4.5-3
STATE INTERIOR AND EXTERIOR NOISE STANDARDS**

LAND USE CATEGORIES		CNEL	
Categories	Uses	Interior ¹	Exterior ²
Residential	Single-Family, Duplex, Multiple-Family	45 ³	65
	Mobile Home	--	65 ⁴
Commercial Industrial Institutional	Hotel, Motel, Transient Lodging	45	--
	Commercial Retail, Bank, Restaurant	55	--
	Office Building, Research and Development, Professional Offices, City Office Building	50	--
	Amphitheater, Concert Hall, Auditorium, Meeting Hall	45	--
	Gymnasium (Multipurpose)	50	--
	Sports Club	55	--
	Manufacturing, Warehousing, Wholesale, Utilities	65	--
	Movie Theaters	45	--
Institutional	Hospital, Schools' Classrooms/Playgrounds	45	65
	Church, Library	45	--
Open Space	Parks	--	65

NOTES:

1. Indoor environmental including: Bathrooms, closets, corridors.
2. Outdoor environment limited to:
 - Private yard of single family
 - Multi-family private patio or balcony which is served by a means of exit from inside the dwelling
 - Balconies 6 feet deep or less are exempt
 - Mobile home park
 - Park's picnic area
 - School's playground
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 UBC.
4. Exterior noise levels should be such that interior noise levels will not exceed 45 dBA CNEL.

**TABLE 4.5-4
NOISE LEVEL PERFORMANCE STANDARDS**

Cumulative Number of Minutes in any One-Hour Period (Ln)	Exterior Noise Level Standard	
	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
30 (L ₅₀)	55	50
15 (L ₂₅)	60	55
5 (L _{8.3})	65	60
1 (L _{1.7})	70	65
0 (L _{max})	75	70

Note: Each of the noise level standards specified in this table shall be reduced by five (5) dB(A) for pure tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards should be applied at residential or other noise-sensitive land use and not on the property of a noise-generating land use.

NOISE ORDINANCE

The Metropolitan Bakersfield General Plan Noise Element Ambient Noise Limits, the City of Bakersfield Noise Ordinance (Chapter 9.22 of the Municipal Code) and the County's application of noise mitigation through the CEQA process are designed to protect people from non-transportation noise sources such as music, construction activity, machinery and pumps, and air conditioners. Enforcement of the ordinance ensures that adjacent properties are not exposed to excessive noise from stationary sources. Enforcing the Noise Ordinances includes requiring proposed development projects to show compliance with the ordinance, as well as compliance during the construction phase. The ordinance is reviewed periodically for adequacy and amended as needed to address community needs and development patterns.

SETTING

The sources of noise in Metropolitan Bakersfield fall into five basic categories. These are:

- Roadways (state highways and major local streets);
- Railroad operations;
- Aircraft overflights from Kern County Airport (Meadows Field) and Bakersfield Airpark;
- Local industrial facilities; and
- Other major stationary sources.

ROADWAYS

Traffic noise on roadways is a significant source of noise within a community. Noise levels along roadways are determined by a number of traffic characteristics. Most important is the average daily traffic (ADT). Additional factors include the percentage of trucks, vehicle speed, the time distribution of this traffic and gradient of the roadway. In general, most of the land uses along the major roadways are commercial, open space and light industrial. However, single and multiple-family

areas, as well as public facilities, are sometimes situated along many major roadways.

State Highways. Traffic noise on state highways is a significant source of noise within the community. The state highways in Metropolitan Bakersfield include: State Route's 43, 58, 99, 119, 178, 184 and 204. Noise generated from state highways produces the highest amount of noise among all types of roadway segments.

Major Roadways. Traffic noise along major roadways, including highways, arterial and collector streets, also generate significant amounts of noise within Metropolitan Bakersfield. The major roadways in Metropolitan Bakersfield include: Columbus Street, Truxtun Avenue, California Avenue, Brundage Lane, Ming Avenue, Planz Road, White Lane, Coffee Road, Stine Road, Wible Road, Chester Avenue, River Boulevard, Mt. Vernon Avenue, 24th Street, Golden State Avenue, Niles Street, Stockdale Avenue, Panama Lane, Airport Drive, Oswell Street, Fairfax Avenue, Gosford Road, Wilson Road, Pacheco Road, H Street, Renfro Road, Olive Drive, Allen Road, Calloway Drive/Old River Road, New Stine Road and 23rd Street.

EXISTING TRAFFIC NOISE LEVELS – COMPUTER MODELING

Roadway traffic noise levels throughout Metropolitan Bakersfield 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), the vehicle travel speed, percentages of auto and truck traffic, the roadway grade, the angle-of-view, the site conditions ("hard" or "soft"), and the percent of total ADT which flows each hour throughout a 24-hour period. The model does not account for existing sound barriers (i.e. sound walls, earth berms, etc), 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 Metropolitan Bakersfield based on empirical observations and posted maximum speeds. Thus, traffic noise levels reflect "worst-case scenarios." As previously stated, noise projections are based on vehicular traffic as derived from the Kern Council of Governments.

Existing noise contours were calculated for all of Metropolitan Bakersfield's freeways, highways, expressways, arterial streets and collector streets. Noise generation for each roadway segment was calculated and the distance to the 60, 65, and 70 dBA CNEL contours was determined at 100 feet from roadway centerline. A noise contour is a line behind which the noise level does not exceed a certain value. For instance, the 60 dBA CNEL contour indicates that the CNEL between the street and the contour line is equal to, or greater than 60 dB; the CNEL beyond the contour line - away from the street - is less than 60 dB. The noise generation results are shown in Table 4.5-5, *Exterior Noise Exposure Adjacent to Nearby Roadways, 2000, (Freeways)*, Table 4.5-6, *Exterior Noise Exposure Adjacent to Nearby Roadways, 2000, (Highways and Expressways)*, Table 4.5-7, *Exterior Noise Exposure Adjacent to Nearby Roadways, 2000, (Arterial Streets)*, and Table 4.5-8, *Exterior Noise Exposure Adjacent to Nearby Roadways, 2000, (Collector Streets)*.

**TABLE 4.5-5
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(FREEWAYS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
State Route 99:					
North of Seventh Standard Road	56,000	71.82	177	382	823
Seventh Standard Road to Olive Drive	68,667	72.71	203	438	944
Olive Drive to Union Avenue (SR-204)	74,000	73.04	214	461	993
SR-58 (west of 99) to SR-204 (Union Avenue)	78,000	73.49	222	477	1,028
SR-58 (west of 99) to SR-58 (east of 99)	108,500	74.92	276	594	1,280
SR-58 (east of 99) to Ming Avenue	100,000	74.59	261	563	1,213
Ming Avenue to White Lane	86,000	73.69	236	509	1,097
White Lane to Panama Lane	57,000	71.90	180	387	834
Panama Lane to Taft Hwy (SR-119)	44,000	70.78	151	326	702
South of Taft Hwy (SR-119)	35,000	69.78	130	279	602
State Route 58:					
Real Road to SR-99	63,000	71.83	192	414	891
SR-99 to Chester Avenue	63,000	71.83	192	414	891
Chester Avenue to Union Avenue (SR-204)	65,000	72.16	196	422	910
Union Avenue (SR-204) to Cottonwood Road	64,000	71.90	194	418	900
Cottonwood Road to Mt Vernon Avenue	64,000	72.09	194	418	900
Mt Vernon Avenue to Oswell Street	51,000	71.11	167	359	775
Oswell Street to Fairfax Road	40,500	70.11	143	308	664
Fairfax Road to Weedpatch Hwy (SR-184)	37,500	69.79	136	293	631
East of Weedpatch Hwy (SR-184)	23,400	67.72	99	214	460
State Route 178:					
Golden State Avenue to Union Avenue	58,000	71.98	182	392	844
Union Avenue to Beale Avenue	58,000	71.98	182	392	844
Beale Avenue to Mt Vernon Avenue	53,500	71.63	172	371	800
Mt Vernon Avenue to Oswell Street	38,500	70.20	138	298	642
Oswell Street to Fairfax Road	21,200	67.1	93	200	431
Source: GIS Data, City of Bakersfield.					
Notes:					
1 ADT means average daily two-way traffic volume.					
2 CNEL values are calculated at 100 feet from the – R/W-Noise contour located with the roadway right-of-way (ROW). Estimates do not adjust for any existing noise barriers and are for traffic noise only.					
3 All distances are measured from the centerline.					
4 Roadway segments and corresponding noise and traffic data listed above represents all roadway segments for which data was provided by the City of Bakersfield. Data was not available for all roadway segments within Metropolitan Bakersfield.					

**TABLE 4.5-6
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(HIGHWAY/EXPRESSWAYS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
State Route 58 (Rosedale Highway):					
West of Allen Road	10,250	64.07	43	92	198
Allen Road to Calloway Drive	22,200	65.49	60	130	281
Calloway Drive to Coffee Road	28,500	66.57	71	154	331
Coffee Road to Fruitvale Avenue	34,000	67.34	80	173	373
Fruitvale Avenue to SR-99	36,227	66.44	70	151	325
24th Street:					
SR-99 to Oak Street	38,333	65.40	60	128	277
Oak Street to B Street	41,500	65.98	63	136	292
B Street to SR-178	26,545	62.92	38	81	174
23rd Street:					
B Street to SR-178	23,375	62.37	35	74	160
State Route 178:					
Fairfax Road to Kern Canyon Road	7,900	62.94	36	77	166
Kern Canyon Road to Alfred Harrell Expressway	5,400	61.29	28	60	129
East of Alfred Harrell Expressway	3,600	59.53	21	46	98
Golden State Avenue (SR-204):					
Airport Drive to "F" Street	39,000	70.48	140	301	648
"F" Street to Chester Avenue	35,000	66.47	68	147	317
Chester Avenue to SR-178	23,800	64.24	53	114	246
SR-178 to Union Avenue	14,560	62.10	38	82	177
Morning Drive (SR-184):					
Niles Street to Edison Hwy	8,956	59.87	28	59	128
Edison Hwy to Brundage Lane	11,500	61.96	33	70	151
Weedpatch Hwy (SR-184):					
Brundage Lane to SR-58	12,500	62.68	34	74	160
SR-58 to Panama Lane	9,992	61.91	30	64	138
Panama Lane to Panama Road	8,450	60.98	27	57	123
Kern Canyon Road:					
Morning Drive to SR-178	4,780	60.76	26	55	119
Alfred Harrell Expressway:					
West of Fairfax Road	3,050	57.94	19	41	88
Fairfax Road to Lily Drive	1,500	54.86	12	25	55
Lily Drive to SR-178	1,071	54.26	9	20	44
Taft Expressway (SR-119):					
Buena Vista Road to Old River Road	7,700	62.83	35	76	163
Old River Road to Gosford Road	7,700	62.83	35	76	163
Gosford Road to Ashe Road	7,700	62.83	35	76	163
Ashe Road to Wible Road	7,833	62.90	36	77	165
Wible Road to SR-99	9,560	63.77	41	88	189
Source: GIS Data, City of Bakersfield.					
Notes:					
¹ ADT means average daily two-way traffic volume.					
² CNEL values are calculated at 100 feet from the – R/W-Noise contour located with the roadway right-of-way (ROW). Estimates do not adjust for any existing noise barriers and are for traffic noise only.					
³ All distances are measured from the centerline.					
⁴ Roadway segments and corresponding noise and traffic data listed above represents all roadway segments for which data was provided by the City of Bakersfield. Data was not available for all roadway segments within Metropolitan Bakersfield.					

**TABLE 4.5-7
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(ARTERIAL STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Seventh Standard Road:					
West of Calloway Drive	6,350	61.99	31	67	144
Calloway Drive to Coffee Road	6,350	61.99	31	67	144
Coffee Road to Airport Drive	12,022	64.76	47	102	220
Airport Drive to Chester Avenue	5,900	71.45	132	285	614
Manor Street:					
Chester Avenue to China Grade Road	8,358	62.83	37	80	173
China Grade Road to Olive Drive	11,000	64.02	45	96	207
Olive Drive to Columbus Street	16,500	65.46	59	126	272
China Grade Loop:					
Airport Drive to Chester Avenue	8,570	62.94	38	82	176
Chester Avenue to Manor Street	8,640	62.97	38	82	176
Manor Street to Round Mountain Road	4,600	60.59	25	54	116
Round Mountain Road to Alfred Harrell Hwy	4,300	60.30	24	51	111
China Grade Loop Expressway:					
China Grade Loop Expressway	1,375	55.35	11	24	52
Round Mountain Road:					
East of China Grade Loop	1,600	56.00	12	27	57
Alfred Harrell Hwy:					
China Grade Loop to Mt Vernon Avenue	2,850	58.51	18	39	84
Olive Drive:					
West of Coffee Road	4,375	57.44	17	37	79
Coffee Road to Fruitvale Avenue	9,455	60.79	29	62	133
Fruitvale Avenue to Airport Drive	21,153	64.29	49	105	227
Hageman Road:					
West of Jewetta Avenue	6,725	59.99	23	49	106
Jewetta Avenue to Calloway Drive	13,525	62.34	36	78	168
Calloway Drive to Coffee Road	14,425	62.62	38	82	176
Coffee Road to Fruitvale Avenue	7,745	61.10	30	65	139
Columbus Street:					
West of River Boulevard	11,587	61.07	27	58	125
River Boulevard to Mt Vernon Avenue	14,557	62.66	38	82	177
Mt Vernon Avenue to Oswell Street	11,963	61.81	33	72	155
Oswell Street to Panorama Drive	6,550	59.19	22	48	104
Monterrey Street:					
Union Avenue to Beale Avenue	4,425	56.56	14	30	66
East of Beale Avenue	7,350	58.76	20	43	92
Panorama Drive:					
West of Mt Vernon Avenue	5,025	58.04	19	40	87
Mt Vernon Avenue to Columbus Street	8,775	60.79	27	59	126
Brimhall Road:					
Allen Road to Jewetta Avenue	7,000	61.73	33	71	153
Jewetta Avenue to Calloway Drive	8,825	62.01	33	70	152

**TABLE 4.5-7 – CONTINUED
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(ARTERIAL STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Niles Street:					
Union Avenue to Beale Avenue	5,315	57.35	16	34	74
Beale Avenue to Haley Street	5,900	57.8	17	37	79
Haley Street to Mt Vernon Avenue	13,500	61.37	30	64	138
Mt Vernon Avenue to Oswell Street	19,008	62.54	37	81	173
Oswell Street to Fairfax Road	15,025	61.52	32	69	148
Fairfax Road to Morning Drive	13,800	61.15	30	65	140
Truxtun Avenue:					
West of Union Avenue	11,980	60.26	27	59	127
East of Union Avenue	10,550	59.98	25	54	117
California Avenue:					
Stockdale Hwy to Mohawk Street	31,550	64.47	52	113	243
Mohawk Street to Oak Street	31,850	64.51	53	114	245
Oak Street to H Street	20,035	64.05	47	102	219
H Street to Baker Street	15,864	60.06	27	57	124
Baker Street to Cottonwood Road	13,925	61.19	30	65	141
Cottonwood Road to Mt Vernon Avenue	12,219	60.62	28	60	129
Mt Vernon Avenue to Edison Hwy	5,950	57.49	17	37	80
Edison Hwy:					
California Avenue to Oswell Street	8,950	60.87	28	59	128
Oswell Street to Fairfax Road	6,850	59.71	23	50	107
East of Fairfax Road	3,724	57.42	15	33	71
Stockdale Hwy:					
Renfro Road to Allen Road	12,525	64.26	49	105	226
Allen Road to Buena Vista Road	17,600	65.74	61	132	284
Buena Vista Road to Old River Road	12,000	64.08	47	102	220
Old River Road to Gosford Road	21,250	66.56	69	149	322
Gosford Road to El Rio Drive	29,100	56.67	60	130	281
El Rio Drive to Ashe Road	31,700	66.04	64	138	297
Ashe Road to New Stine Road	35,800	66.57	69	149	322
New Stine Road to Wible Road	30,704	64.62	51	111	239
Brundage Lane:					
Wible Road to H Street	13,600	61.41	30	64	139
H Street to P Street	9,450	58.41	19	41	88
P Street to Union Avenue	10,100	60.11	25	53	114
Union Avenue to Cottonwood Road	9,475	59.84	23	51	109
Cottonwood Road to Mt Vernon Avenue	7,800	60.30	25	54	117
Mt Vernon Avenue to Oswell Street	5,600	59.19	20	43	93
Oswell Street to Fairfax Road	6,102	59.24	21	46	99
Fairfax Road to Morning Drive	5,150	58.83	19	41	88

**TABLE 4.5-7 – CONTINUED
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(ARTERIAL STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Ming Avenue:					
Buena Vista Road to Old River Road	7,125	61.54	33	72	155
Old River Road to Gosford Road	22,925	66.62	73	157	338
Gosford Road to Ashe Road	24,713	64.69	54	117	252
Ashe Road to New Stine Road	32,425	65.87	65	140	302
New Stine Road to Wible Road	39,430	65.43	61	131	282
Wible Road to Hughes Lane	27,375	63.85	48	103	221
Hughes Lane to H Street	13,625	61.09	30	64	139
H Street to P Street	10,813	60.09	26	55	119
P Street to Union Avenue	8,800	59.19	22	48	104
Casa Loma Drive:					
Union Avenue to Cottonwood Road	4,428	56.89	14	30	66
White Lane:					
Buena Vista Road to Old River Road	17,550	65.73	61	131	283
Old River Road to Gosford Road	19,350	65.88	65	140	302
Gosford Road to Ashe Road	24,825	66.96	65	140	302
Ashe Road to Stine Road	25,225	65.95	66	142	305
Stine Road to Wible Road	32,750	67.36	78	169	364
Wible Road to H Street	32,400	66.14	65	140	302
H Street to Union Avenue	11,463	60.34	27	57	124
Union Avenue to Cottonwood Road	6,575	58.61	18	40	86
Pacheco Road:					
Buena Vista Road to Old River Road	850	53.26	8	17	38
Panama Lane:					
Buena Vista Road to Old River Road	3,700	59.65	22	47	100
Old River Road to Gosford Road	3,700	59.65	22	47	100
Gosford Road to Ashe Road	5,775	61.58	29	63	135
Ashe Road to Stine Road	10,650	63.88	44	94	203
Stine Road to Akers Road	11,925	63.29	40	86	185
Akers Road to Wible Road	17,575	64.95	52	111	240
East of Wible Road	20,825	65.12	58	125	269
West of H Street	15,275	64.05	47	102	219
H Street to Union Avenue	7,675	61.74	30	64	138
Union Avenue to Cottonwood Road	5,000	59.87	22	48	104
Cottonwood Road to Fairfax Road	4,212	59.13	20	43	93
Fairfax Road to Morning Drive	2,850	57.43	15	33	71
Mc Cutchen Road:					
Old River Road to Gosford Road	170	46.27	3	6	13
Gosford Road to Ashe Road	170	46.27	3	6	13
Hosking Road:					
Wible Road to H Street	2,250	57.49	16	33	72
H Street to Union Avenue	1,550	55.87	12	26	56
Taft Hwy (SR-119):					
H Street to Union Avenue	8,393	63.20	37	80	173

**TABLE 4.5-7 – CONTINUED
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(ARTERIAL STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Panama Road:					
Union Avenue to Cottonwood Road	6,150	61.85	30	65	141
Cottonwood Road to Weedpatch Hwy (SR-184)	6,097	61.85	30	65	140
Renfro Road:					
North of Stockdale Hwy	1,900	54.50	10	21	46
Allen Road:					
North of Stockdale Hwy	9,015	61.26	28	60	128
Jewetta Avenue:					
North of Hageman Road	3,175	56.73	14	30	64
Calloway Road:					
Seventh Standard Road to Snow Road	3,667	59.61	21	46	100
Snow Road to Hageman Road	9,575	63.78	41	88	189
South of Hageman Road	13,914	64.72	52	113	242
North of Brimhall Road	14,925	61.49	32	169	148
Brimhall Road to Stockdale Hwy	15,725	65.25	57	122	263
Coffee Road:					
Seventh Standard Road to Snow Road	3,300	59.15	20	43	93
Snow Road to Olive Drive	9,000	63.51	39	84	181
Olive Drive to Hageman Road	15,400	65.16	56	120	259
Hageman Road to Brimhall Road	31,325	68.24	90	193	416
Brimhall Road to Stockdale Hwy	38,342	69.12	103	221	476
Fruitvale Avenue:					
Olive Drive to Hageman Road	8,725	60.44	27	58	126
South of Hageman Road	9,700	61.58	29	63	125
Airport Drive:					
North of China Grade Loop	6,550	59.19	22	48	104
China Grade Loop to Norris Road	15,000	62.79	39	84	180
Norris Road to Olive Drive	20,300	64.11	48	102	221
South of Olive Drive	26,900	65.33	57	124	266
Chester Avenue:					
Seventh Standard Road to China Grade Loop	10,600	60.00	25	55	117
China Grade Loop to Norris Road	18,036	62.31	36	78	167
Norris Road to California Avenue	17,183	62.10	35	75	162
California Avenue to Brundage Lane	13,375	61.01	30	64	137
Brundage Lane to Ming Avenue	12,573	62.03	35	74	160
Ming Avenue to Union Avenue	7,008	59.49	23	50	109
River Boulevard:					
Panorama Road to Columbus Street	3,779	56.2	13	27	59
Beale Avenue:					
Columbus Street to Niles Street	9,753	59.96	24	52	111
Niles Street to Monterey Street	9,675	59.93	24	51	111
South of Monterey Street	13,150	60.94	29	63	136

**TABLE 4.5-7 – CONTINUED
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(ARTERIAL STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Mt Vernon Avenue:					
Alfred Harrell Hwy to Columbus Street	16,758	61.99	34	74	159
Columbus Street to Niles Street	24,857	63.70	45	96	207
Niles Street to California Avenue	25,900	63.88	46	99	213
California Avenue to Brundage Lane	24,343	63.61	44	95	204
Oswell Street					
Columbus Street to Auburn Street	10,675	58.61	20	44	95
Auburn Street to Bernard Street	30,750	63.21	41	89	192
Bernard Street to Niles Street	16,789	60.58	28	60	128
Niles Street to Edison Hwy	15,120	60.13	26	56	120
South of Edison Hwy	13,300	59.57	24	51	110
North of Brundage Lane	11,950	59.10	22	48	102
South of Brundage Lane	11,475	58.93	21	46	100
Fairfax Road:					
North of Panorama Drive	4,750	58.97	22	47	100
Panorama Drive to Auburn Street	11,100	61.49	32	69	148
Auburn Street to College Avenue	15,210	62.85	39	84	182
College Avenue to Niles Street	13,300	62.59	36	77	166
South of Niles Street	12,300	62.61	34	73	158
North of Edison Hwy	12,420	62.65	34	74	159
Edison Hwy to Brundage Lane	14,040	63.19	37	80	173
Brundage Lane to Panama Lane	8,176	60.84	26	56	120
Buena Vista Road:					
Stockdale Hwy to Ming Avenue	12,850	64.37	50	107	230
Ming Avenue to White Lane	8,350	63.18	37	80	172
White Lane to Pacheco Road	4,625	60.61	25	54	116
Pacheco Road to Panama Lane	3,400	59.28	20	44	95
Panama Lane to Panama Road	2,376	57.72	16	35	75
Old River Road:					
Stockdale Hwy to Ming Avenue	17,850	65.53	62	133	286
Ming Avenue to White Lane	11,500	63.62	46	99	213
South of White Lane	2,450	57.18	16	35	76
Pacheco Road to Panama Lane	421	50.21	5	11	24
Panama Lane to Mc Cutchen Road	421	50.21	5	11	24
South of Mc Cutchen Road	421	50.21	5	11	24
Gosford Road:					
Stockdale Hwy to Ming Avenue	32,125	68.08	91	197	423
Ming Avenue to White Lane	24,225	66.85	76	163	351
White Lane to Pacheco Road	17,200	65.64	60	130	279
Pacheco Road to Panama Lane	12,875	65.06	50	107	230
Panama Lane to Mc Cutchen Road	3,800	59.76	22	47	102
South of Mc Cutchen Road	4,100	60.09	23	50	107

**TABLE 4.5-7 – CONTINUED
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(ARTERIAL STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Ashe Road:					
Stockdale Hwy to Ming Avenue	12,354	64.20	48	104	224
Ming Avenue to White Lane	14,121	63.70	45	96	207
South of White Lane	11,963	62.98	40	86	186
Panama Lane to Mc Cutchen Road	460	49.51	5	10	21
South of Mc Cutchen Road	460	49.51	5	10	21
Stine Road:					
Stockdale Hwy to Ming Avenue	25,563	64.84	55	119	257
Ming Avenue to White Lane	20,067	63.79	47	102	219
White Lane Panama Lane	13,072	67.20	35	76	165
South of Panama Lane	5,625	59.71	24	52	112
Oak Street:					
North of California Avenue	22,335	61.82	33	72	155
California Avenue to Stockdale Hwy	18,548	61.01	30	64	137
Wible Road:					
Brundage Lane to Ming Avenue	15,900	60.67	28	60	130
Ming Avenue to White Lane	12,989	62.31	36	78	167
White Lane Panama Lane	13,430	67.17	35	76	164
Panama Lane to Hosking Road	7,025	63.05	40	87	188
South of Hosking Road	4,600	58.83	21	46	98
H Street:					
White Lane to Pacheco Road	17,050	63.35	42	91	196
Pacheco Road to Panama Lane	9,614	61.18	29	62	134
Panama Lane to Hosking Road	5,050	58.03	18	38	83
South of Hosking Road	4,650	58.39	19	41	87
North of Panama Road	3,150	56.70	14	30	64
Union Avenue:					
Columbus Street to Niles Street	19,340	63.63	46	99	214
South of Brundage Lane	38,500	66.62	73	157	338
North of Casa Loma Drive	24,600	64.94	54	116	251
Casa Loma Drive to White Lane	18,558	63.72	45	97	208
White Lane Panama Lane	11,389	61.60	32	70	150
Panama Lane to Hosking Road	11,556	61.66	33	70	152
Hosking Road to Panama Road	9,285	60.71	28	61	131
Cottonwood Road:					
California Avenue to Brundage Lane	5,194	58.54	19	41	89
Brundage Lane to Casa Loma Drive	15,228	63.21	39	85	182
Casa Loma Drive to White Lane	4,979	58.68	19	40	86
White Lane Panama Lane	2,165	55.07	11	23	50
Panama Lane to Panama Road	1,900	54.50	10	21	46

**TABLE 4.5-7 – CONTINUED
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(ARTERIAL STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Rancheria Road					
Rancheria Road	425	50.25	5	11	24

Source: GIS Data, City of Bakersfield.

Notes:

- ¹ ADT means average daily two-way traffic volume.
- ² CNEL values are calculated at 100 feet from the – R/W-Noise contour located with the roadway right-of-way (ROW). Estimates do not adjust for any existing noise barriers and are for traffic noise only.
- ³ All distances are measured from the centerline.
- ⁴ Roadway segments and corresponding noise and traffic data listed above represents all roadway segments for which data was provided by the City of Bakersfield. Data was not available for all roadway segments within Metropolitan Bakersfield.

**TABLE 4.5-8
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(COLLECTOR STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Norris Road:					
Calloway Drive to Coffee Road	3,600	59.04	21	46	98
Coffee Road to Patton Way	3,600	59.90	21	46	98
East of Patton Way	5,162	60.61	27	58	125
Roberts Lane to Airport Drive	8,400	62.72	37	80	173
Airport Drive to Chester Avenue	12,038	64.28	47	102	220
Chester Avenue to Manor Street	5,100	60.55	27	58	124
Roberts Lane:					
Norris Road to Olive Drive	7,250	61.84	34	73	157
Olive Drive to Airport Drive	8,000	62.27	36	78	168
Airport Drive to Chester Avenue	17,750	65.73	61	132	285
Chester Avenue to Manor Street	9,650	63.08	41	88	190
Meacham Road:					
West of Calloway Drive	4,275	54.83	11	24	52
Granite Falls Drive:					
Main Plaza Drive to Coffee Road	4,525	55.08	12	25	54
Gilmore Avenue:					
West of Buck Owens Boulevard	8,875	58.01	18	39	84
Buck Owens Boulevard:					
North of Gilmore Avenue	10,875	60.07	26	56	120
Pierce Road:					
South of Gilmore Avenue	14,575	61.34	31	67	145
Sillect Avenue:					
East of Buck Owens Boulevard	5,100	57.02	16	33	72
Columbus Street:					
Chester Avenue to Q Street	8,425	60.24	26	57	123
Q Street to Union Avenue	7,925	60.22	25	55	118
East of Union Avenue	10,450	61.42	31	66	142
Panorama Drive:					
West of River Boulevard	10,932	61.37	31	68	146
River Boulevard to Haley Street	10,400	61.16	30	66	141
Columbus Street to University Avenue	3,225	56.07	14	30	65
University Avenue to Fairfax Road	5,775	58.60	21	44	95
East of Fairfax Road	5,225	58.41	19	41	89
University Avenue:					
River Boulevard to Haley Street	2,300	50.57	6	12	27
Haley Street to Mt Vernon Avenue	6,250	57.90	18	38	18
Mt Vernon Avenue to Wenatchee Avenue	6,175	57.85	18	38	82
Wenatchee Avenue to Columbus Street	4,700	56.66	15	32	68
Columbus Street to Panorama Drive	47,000	56.66	15	32	68
Auburn Street:					
Columbus Street to Oswell Street	7,575	59.78	25	53	114
Oswell Street to Fairfax Road	7,500	59.74	25	53	114
East of Fairfax Road	4,500	57.52	17	38	81

**TABLE 4.5-8 – CONTINUED
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(COLLECTOR STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
34th Street:					
Chester Avenue to Q Street	12,275	60.59	28	60	130
Q Street to Union Avenue	12,125	60.54	28	60	129
Bernard Street:					
Union Avenue to Alta Vista Drive	10,275	60.06	25	53	115
Alta Vista Drive to Baker Street	10,275	60.06	25	53	115
Baker Street to Beale Avenue	10,275	60.06	25	53	115
Beale Avenue to Haley Street	10,368	61.14	30	65	141
Haley Street to Mt Vernon Avenue	9,700	60.85	29	63	135
Mt Vernon Avenue to Oswell Street	15,800	62.97	40	87	187
Flowers Street:					
Alta Vista Drive to Baker Street	1,825	49.56	5	11	23
Baker Street to Beale Avenue	2,875	51.53	7	14	31
East of Beale Avenue	9,225	56.60	15	31	68
College Avenue:					
Mt Vernon Avenue to Oswell Street	6,990	58.39	19	41	89
Oswell Street to Fairfax Road	6,770	58.25	19	40	87
East of Fairfax Road	3,750	55.68	13	27	59
Summers Street:					
Union Avenue to Baker Street	3,525	54.00	10	21	45
Baker Street to Beale Avenue	4,125	54.68	11	23	50
East of Beale Avenue	4,125	54.68	11	23	50
Edison Hwy:					
West of California Avenue	8,000	58.97	21	45	97
Brimhall Road:					
Calloway Drive to Coffee Road	14,725	65.16	54	117	252
21st Street:					
West of Oak Street	5,400	55.85	13	28	60
Marella Way:					
West of Montclair Street	2,300	52.14	7	16	34
Palm Street:					
Real Road to Oak Street	4,800	55.34	12	26	56
Oak Street to A Street	4,825	55.36	12	26	56
A Street to H Street	3,750	54.27	10	22	47
4th Street:					
H Street to P Street	3,225	53.61	9	20	43
P Street to King Street	3,765	54.27	10	22	47
Virginia Avenue:					
King Street to Lakeview Avenue	3,025	51.76	7	15	32
East of Lakeview Avenue	2,000	49.96	5	11	24

**TABLE 4.5-8 – CONTINUED
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(COLLECTOR STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Belle Terrace:					
New Stine Road to Stine Road	8,925	60.73	27	59	128
Stine Road to Wible Road	10,780	58.85	21	44	96
Wible Road to H Street	7,508	57.28	16	35	75
H Street to P Street	5,050	55.56	12	27	58
P Street to Union Avenue	3,525	54.00	10	21	45
East of Union Avenue	3,240	53.63	9	20	43
Madison Street to Cottonwood Road	2,600	52.68	8	17	37
Camino Media:					
Calloway Drive to Coffee Road	7,125	59.75	24	51	110
Grand Lakes Avenue:					
East of Old River Road	1,450	51.56	7	15	31
El Portal Drive:					
Gosford Road to Ming Avenue	3,665	55.58	12	27	58
Wilson Road:					
White Lane to Planz Road	6,650	58.30	19	40	86
Planz Road to New Stine Road	9,675	59.93	24	51	111
New Stine Road to Stine Road	12,100	60.53	28	60	128
Stine Road to Akers Road	12,100	60.53	28	60	128
Akers Road to Real Road	10,700	59.99	25	55	118
Real Road to Wible Road	10,700	59.99	25	55	118
Wible Road to Hughes Lane	11,400	60.27	27	57	123
Hughes Lane to H Street	8,150	59.05	21	46	99
H Street to Union Avenue	5,623	57.44	17	36	77
Union Avenue to Madison Street	3,425	55.29	12	26	55
Planz Road:					
Wilson Road to Stine Road	5,350	57.23	16	35	75
Stine Road to Akers Road	9,800	59.85	24	52	111
Akers Road to Real Road	7,000	58.39	19	41	89
Real Road to Wible Road	7,000	58.39	19	41	89
Wible Road to Hughes Lane	10,500	60.15	25	54	117
Hughes Lane to H Street	7,550	58.72	20	43	94
H Street to Union Avenue	8,725	59.35	22	48	103
Madison Avenue to Cottonwood Road	1,600	51.98	2	15	33
East of Cottonwood Road	290	44.57	2	5	11
Ridge Oak Drive:					
East of Old River Road	1,275	51	6	13	29
Laurelglen Boulevard:					
Pine Oak Park Boulevard to Olympia Drive	3,275	56.38	14	30	65
East of Olympia Drive	2,525	53.97	10	21	45
Olympia Drive:					
Laurelglen Boulevard to Lily Drive	3,900	57.14	16	34	73
Lily Drive to Halfmoon Drive	3,900	57.14	16	34	73

**TABLE 4.5-8 – CONTINUED
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(COLLECTOR STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Halfmoon Drive:					
North of Olympia Drive	3,825	57.05	16	34	73
South of Olympia Drive	2,475	55.16	12	25	54
Campus Park Drive:					
Buena Vista Road to Mountain Vista Drive	1,000	47.94	5	11	24
Mountain Vista Drive to Old River Road	1,650	52.12	7	16	34
District Boulevard:					
Pine Oak Park Boulevard to Gosford Road	5,225	58.41	19	41	89
Gosford Road to Ashe Road	10,300	59.58	23	50	107
Ashe Road to Stine Road	11,375	62.96	39	83	180
Pacheco Road:					
Old River Road to Gosford Road	850	52.77	8	17	38
Stine Road to Akers Road	10,025	62.41	36	77	165
Akers Road to Wible Road	10,025	62.41	36	77	165
Wible Road to Hughes Lane	9,300	60.91	28	61	131
Hughes Lane to H Street	7,900	60.20	25	55	118
H Street to Monitor Street	10,100	59.99	25	53	114
Monitor Street to Union Avenue	8,125	59.04	21	46	98
Union Avenue to Cottonwood Road	2,920	54.60	11	23	50
Harris Road:					
Gosford Road to Ashe Road	6,575	59.41	22	48	104
Ashe Road to Stine Road	6,325	59.24	22	47	101
Stine Road to Akers Road	6,400	59.29	22	47	102
Akers Road to Wible Road	6,350	59.25	22	47	102
Fairview Road:					
Hughes Lane to H Street	3,700	55.62	13	27	58
H Street to Monitor Street	4,700	57.95	18	39	83
Monitor Street to Union Avenue	3,425	56.57	15	31	67
East of Union Avenue	4,500	57.76	17	38	81
Berkshire Road:					
H Street to Union Avenue	1,350	54.78	11	24	51
East of Union Avenue	497	50.44	6	12	26
McKee Road:					
West of Wible Road	1,250	52.20	7	16	34
Allen Road:					
Seventh Standard Road to Hageman Road	1,360	54.81	11	24	51
Patton Way:					
North of Norris Road	1,850	52.61	8	17	37
Norris Road to Olive Drive	4,300	56.28	14	30	64
North of Hageman Road	5,475	57.33	16	35	76
South of Hageman Road	2,725	54.30	10	22	48
Verdugo Lane:					
North of Hageman Road	3,000	56.00	13	29	62
River Lakes Drive:					
Olive Drive to Hageman Road	3,550	56.73	15	32	69

**TABLE 4.5-8 – CONTINUED
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(COLLECTOR STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Main Plaza Drive:					
Hageman Road to Granite Falls Drive	3,475	56.64	15	32	68
Haley Street:					
Panorama Drive to University Avenue	5,900	57.78	17	37	80
University Avenue to Columbus Street	7,950	59.07	21	45	97
South of Columbus Street	11,075	60.14	26	56	121
North of Bernard Street	5,450	57.31	16	35	75
Bernard Street to Niles Street	4,675	56.64	15	32	68
Niles Street to Monterey Street	2,800	53.00	8	18	39
South of Monterey Street	2,800	53.00	8	18	39
Wenatchee Avenue:					
Panorama Drive to University Avenue	2,150	53.27	9	19	41
University Avenue to Columbus Street	2,525	53.97	10	21	45
Jewetta Avenue:					
North of Brimhall Road	2,650	54.17	10	22	47
El Rio Drive:					
North of Stockdale Hwy	3,775	55.71	13	27	59
Montclair Street:					
Stockdale Hwy to Marella Way	3,675	54.18	10	22	47
North of Marella Way	1,850	51.20	6	14	30
Real Road:					
California Avenue to Palm Street	7,256	58.55	20	42	91
Palm Street to Stockdale Hwy	6,900	56.91	15	33	71
South of Stockdale Hwy	18,800	62.44	37	80	172
North of Ming Avenue	8,650	59.31	22	48	103
Ming Avenue to Wilson Road	7,825	58.88	21	45	96
Wilson Road to Planz Road	3,975	55.94	13	28	61
A Street:					
California Avenue to Palm Street	2,975	53.26	9	19	41
Palm Street to Brundage Lane	3,250	53.64	9	20	43
F Street:					
34 th Street to 24 th Street	10,150	58.35	20	43	92
24 th Street to Truxtun Avenue	9,925	55.27	12	25	54
H Street:					
North of Truxtun Avenue	7,838	57.60	17	36	77
Truxtun Avenue to California Avenue	14,675	56.97	15	33	70
California Avenue to Palm Street	14,275	61.82	31	67	143
Palm Street to Brundage Lane	14,275	61.62	31	67	143
Brundage Lane to Belle Terrace	18,500	62.37	37	79	170
Belle Terrace to Ming Avenue	16,875	63.26	42	91	195
Ming Avenue to Wilson Road	17,175	63.33	42	92	197
Wilson Road to Planz Road	16,900	63.26	42	91	195
Planz Road to White Lane	15,800	62.97	40	87	187

**TABLE 4.5-8 – CONTINUED
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(COLLECTOR STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Q Street:					
Columbus Street tot 34 th Street	4,825	58.19	18	39	85
South of 34 th Street	7,100	57.17	16	34	72
North of Truxtun Avenue	5,100	55.60	13	27	58
Truxtun Avenue to California Avenue	4,475	54.79	11	25	53
P Street:					
California Avenue to 4 th Street	4,250	54.81	11	24	51
4 th Street to Brundage Lane	4,150	56.12	14	29	63
Brundage Lane to Belle Terrace	4,475	56.45	14	31	66
Belle Terrace to Ming Avenue	6,804	58.27	19	41	87
Alta Vista Drive:					
Bernard Street to Flower Street	3,800	54.32	10	22	48
Flower Street to Niles Street	3,800	52.75	8	17	37
Baker Street:					
Bernard Street to Flower Street	2,875	53.11	9	18	40
Flower Street to Niles Street	4,825	55.36	12	26	56
Niles Street to Monterey Street	5,850	52.84	8	18	38
Monterey Street to Summers Street	5,850	52.84	8	18	38
Summers Street to Truxtun Avenue	6,775	56.83	15	33	70
Truxtun Avenue to California Avenue	4,425	54.98	11	24	53
Lake Ming Road:					
Lake Ming Road	2,325	52.19	7	16	34
King Street:					
California Avenue to Virginia Avenue	3,025	53.33	9	19	41
Quantico Avenue:					
North of Brundage Lane	2,275	52.10	7	16	34
Grand Lakes Avenue:					
Ming Avenue to Mountain Vista Drive	2,550	52.59	8	17	37
Mountain Vista Drive:					
Grand Lakes Avenue to Campus Park Drive	3,135	56.19	14	29	64
Scarlet Oak Boulevard:					
South of Ming Avenue	3,000	56.00	13	29	62
Haggin Oaks Boulevard:					
South of Ming Avenue	3,825	54.35	10	22	48
Park View Drive:					
Laurelglen Boulevard to White Lane	3,375	55.23	12	25	55
South of White Lane	2,900	54.57	11	23	50
Pine Oak Park Boulevard:					
Park View Drive to Laurelglen Boulevard	2,025	53.01	8	18	39
Laurelglen Boulevard to White Lane	2,025	53.01	8	18	39
White Lane to District Boulevard	3,950	55.91	13	28	61
Lily Drive:					
Olympia Drive to White Lane	2,200	62.99	39	84	180

**TABLE 4.5-8 – CONTINUED
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS, 2000
(COLLECTOR STREETS)**

Roadway	ADT ¹ (Veh/Day)	CNEL ² @ 100 Ft.	Distance to Contours (Ft.) ³		
			70 dBA	65 dBA	60 dBA
Reliance Drive:					
Harris Road to Panama Lane	2,825	55.74	13	28	59
Stine Road:					
Stockdale Hwy to Belle Terrace	5,050	56.98	10	23	49
Belle Terrace to Ming Avenue	7,950	58.95	21	45	97
Ming Avenue to Wilson Road	6,525	58.22	18	40	85
Akers Road:					
Ming Avenue to Wilson Road	5,800	58.86	21	44	96
Wilson Road to Planz Road	5,725	58.80	20	44	95
Planz Road to White Lane	3,775	57.00	15	33	72
Pacheco Road to Harris Road	2,875	54.53	13	28	60
Harris Road to Panama Lane	2,650	54.17	10	22	47
South of Panama Lane	4,350	58.78	20	44	95
Hughes Lane:					
South of Brundage Lane	3,900	57.14	16	34	73
Ming Avenue to Wilson Road	8,650	60.72	27	58	125
Wilson Road to Planz Road	9,050	60.79	28	60	129
Planz Road to White Lane	10,175	61.30	30	65	139
White Lane to Pacheco Road	10,000	61.23	30	64	138
Pacheco Road to Fairview Road	4,025	57.27	16	35	75
Monitor Street:					
White Lane to Pacheco Road	4,900	56.84	15	33	70
Pacheco Road to Fairview Road	3,500	55.38	12	26	56
Fairview Road to Panama Lane	3,750	55.68	13	27	59
Madison Street:					
Brundage Lane to Belle Terrace	3,996	55.96	16	35	75
Belle Terrace to Ming Avenue	3,996	55.96	13	28	61
Ming Avenue to Wilson Road	3,996	55.96	13	28	61
South of Wilson Road	3,996	55.96	13	28	61
South of Planz Road	3,996	55.96	13	28	61
Source: GIS Data, City of Bakersfield.					
Notes:					
1 ADT means average daily two-way traffic volume.					
2 CNEL values are calculated at 100 feet from the – R/W-Noise contour located with the roadway right-of-way (ROW). Estimates do not adjust for any existing noise barriers and are for traffic noise only.					
3 All distances are measured from the centerline.					
4 Roadway segments and corresponding noise and traffic data listed above represents all roadway segments for which data was provided by the City of Bakersfield. Data was not available for all roadway segments within Metropolitan Bakersfield.					

As indicated in Table 4.5-5, *Exterior Noise Exposure Adjacent to Nearby Roadways, 2000*, (Freeways), SR-178 and SR-58 generate noise levels between 68 and 73 dBA CNEL at 100 feet from roadway centerline. SR-99 generates noise levels between 70 and 75 dBA CNEL at 100 feet from roadway centerline. As shown on Table 4.5-6, *Exterior Noise Exposure Adjacent to Nearby Roadways, 2000*, (Highways/Expressways), Highway 58 (4 links), 24th Street (2 links) and Golden State Avenue (1 link) have links that generate noise levels greater than 65 CNEL at 100 feet from centerline. As indicated on Table 4.5-7, *Exterior Noise Exposure Adjacent to Nearby Roadways, 2000*, (Arterial Streets), the following arterial streets contain links that 65 CNEL at 100 feet from centerline: Seventh Standard Road (1 link), Manor Street (1 link), Stockdale Highway (4 links), Ming Avenue (4 links), White Lane (6 links), Calloway Road (1 link), Coffee Road (1 link), Airport Drive (1 link), Old River Road (1 link), Gosford Road (4 links) and Union Avenue (1 link). These roadway links are above the acceptable noise levels (65 CNEL) for noise sensitive receptors. As shown on Table 4.5-8, *Exterior Noise Exposure Adjacent to Nearby Roadways, 2000*, (Collector Streets), all roadway links generate noise levels below 65 dBA CNEL at 100 feet from roadway centerline.

RAILROAD OPERATIONS

Metropolitan Bakersfield is traversed by two freight train lines: Burlington Northern-Santa Fe Railway (BNSE) and Southern Pacific Transportation Company. The Burlington Northern-Santa Fe yard is located downtown between Truxtun and California Avenues, and the Southern Pacific yard is located in East Bakersfield between Kentucky and Sumner Streets. In addition to the freight train lines, Amtrak provides rail service to and from Bakersfield and the Central Valley cities to the north. The Amtrak station is located at Truxtun Avenue and S Street.

Noise exposure levels, as defined by CNEL, for railroad operations were calculated using the Simplified Procedure for Assessment of Noise Emitted by On-Line Railroad Operations in March 1984.¹ This methodology is an analytical method used to predict railway noise that is based upon reference energy emission levels for diesel locomotives and freight/passenger cars with consideration given to numbers of locomotives and cars, speed, track conditions and distance to the receiver. Results of the study are shown on Table, 4.5-9, *Distance (feet) from Center of Track to CNEL Contour Values for Existing (1986) Railroad Operations*. As in the case of traffic noise contours, railroad noise contours should be considered as estimates of “worst-case” exposure, since no adjustments have been made for shielding provided by intervening topography or buildings. Additionally, a 400 scale map containing the results of the study can be obtained from the City of Bakersfield Planning Department.

AIRCRAFT NOISE

Two Airports are located within the planning area: Meadows Field and Bakersfield Municipal Airport. Meadows Field is owned and operated by Kern County. Bakersfield Municipal Airport is owned and operated by the City of Bakersfield.

¹ Report No. 59197-1, prepared by Wyle Laboratories. March 1974.

**TABLE 4.5-9
EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY RAIL LINES (1986)**

Rail Road	Distance (Feet) from Center of Track to CNEL Contour Values for Railroad Operations (1986)		
	Segment	CNEL 65 dB	CNEL 60 DB
SPTCo	SPTCo. Mainline Yard to the northwest . (within 1,000' of grade crossings)	342 (631)	730 (1,360)
SPTCo/BNSF	SPTCo. Mainline combined operations. Yard to Edison. (within 1,000' of grade crossings)	464 (858)	1,000 (1,848)
BNSF	AT&SF Mainline. Yard to northwest. (within 1,000' of grade crossings)	342 (631)	730 (1,360)
BNSF	SPTCo. Arvin Branchline. (within 1,000' of grade crossings)	369 (681)	794 (1,468)
SPTCo.	SPTCo. McKittrick Branchline. (within 1,000' of grade crossings)	25 (46)	54 (100)
BNSF	SPTCo. Oildale Branchline. (within 1,000' of grade crossings)	25 (46)	54 (100)
Source: Brown-Buntin Associates.			
Notes: Since 1986, BNSF has acquired AT&SF rail line operations. Thus, all BNSF rail road segments shown in the table were former AT&SF rail lines in 1986.			

The California Department of Transportation (Caltrans) has established guidelines in the California State Noise Standard to control residential area noise levels produced by aircraft operations that use the State's airports. Under these guidelines, residential noise sensitive areas exposed to an average CNEL of greater the 65 dBA define the Noise Impact Area.

In 1996, the City of Bakersfield and County of Kern adopted the Airport Land Use Compatibility Plan (ALUCP).² It includes maps showing land use designations and noise contours of the areas surrounding numerous airports located within Kern County. The noise contour maps contained in the ALUCP are calculated based on aircraft activity forecasts which are set forth in an airport master plan or which are considered by the local agency to be plausible.

As indicated in the ALUCP, the land uses within the 65 CNEL noise contour line for the Bakersfield Municipal Airport are designated for public facility and/or commercial/industrial uses. Land use designations within the 60 CNEL noise contour line primarily include public facility uses and commercial/industrial uses. A very small portion of land, on the southeast corner of E. Pacheco Road and Sparks Street, is designated for medium density residential uses and is located within the 60 CNEL

² Source: Airport land Use Compatibility Plan, prepared by the Kern County Planning Department. May 1996.

noise contour. Similarly, in accordance with the ALUCP, the land uses within the 65 CNEL noise contour line for the Meadows Field Airport are designated for public facility uses and/or commercial/industrial uses. A small portion of land on the east side of the intersection of Airport Drive and Norris Road, is designated for residential uses and is located within the 60 CNEL noise contour.

The locations of CNEL contours are one of the factors used to define compatibility zone boundaries and criteria. Because of the inherent variability of flight paths and other factors that influence noise emissions. The depicted contour boundaries are not absolute determinants of the compatibility of a given land use.

INDUSTRIAL FACILITIES

Calcrete. The Calcrete plant is located near the intersection of Pacheco and Wible Roads. The most significant sources of noise associated with this operation are vibrators located in the sand and cement bins to keep materials moving through the system. Maximum noise levels during the operation of the cement bin vibrator, are 60-65 dB(A) at approximately 500 feet northwest of the plant.

Kern Rock Company. The Kern Rock Company sand and gravel operation is located approximately 1,500 feet west of the intersection of Wible and Pacheco Roads. Noise generating activities include truck traffic (hauling sand and gravel to the stockpile area, picking up loads of bulk cement and hauling concrete ready-mix), and the operation of the plant itself. Based upon noise levels and plant operational data, the location of the 60 dB CNEL contour is estimated to be at approximately 300 feet from the plant.

Burlington Northern Santa Fe Railway Company (BNSF): Railroad Classification Yard. The BNSF railroad yard is located east of Oak Street between 16th Street and California Avenue. Generalized CNEL contours for this facility were prepared using operational data obtained from the railroad. Operational data obtained from the railroad were intended to be representative of annual average conditions, although it was recognized that activity varies considerably with seasonal demands and economic conditions.

Southern Pacific Transportation Company (SPTCo): Railroad Classification Yard. The SPTCo railroad classification yard is located east of Beale Avenue between Sumner and Kentucky Streets in Bakersfield. Generalized CNEL contours for this facility were prepared using operational data obtained from the railroad. Operational data were obtained from the railroad to represent annual average conditions, although it was recognized that activity varies considerably throughout the year due to seasonal demands and economic conditions.

Jack Frost Ice Company. The Jack Frost Ice Company facility is located at the southwest intersection of Stine Road and District Boulevard. Noise sources associated with the plant include two compressors located on the roof of the building and truck traffic entering and leaving the loading dock area. Noise measurements with both compressors operating at a distance of 140 feet from the approximate center of the plant resulted in a noise level of 64.1 dB(A) L_{eq} .

Joey Recycling Center. This facility is located on the south side of White Lane between Hughes Lane and South H Street. Noise generating activities consist of the

unloading and crushing of aluminum cans using a hydraulic press. Noise measurements 400 feet from the facility were conducted while the crusher was in operation. The measured Leq at this location was 64.7 dB(A).

Other Facilities. Additional recycling operations located in the Metropolitan area that involve noise generation from on-site activities include BARC recycling, Midway Recycling and Rick's Recycling. The aforementioned facilities are located in industrial and other areas away from sensitive noise receptors.

OTHER STATIONARY NOISE SOURCES

Various 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 Metropolitan Bakersfield include noise from construction activity, street sweepers and gas-powered leaf blowers. Residential land uses and areas identified as noise-sensitive must be protected from excessive noise from stationary sources including commercial and industrial centers. These impacts are best controlled through effective land use planning, the application of the CEQA mitigation process and the application of the City's Noise Ordinance.

Other sources of noise within Metropolitan Bakersfield are Bakersfield Speedway, the Lake Ming boat races and the Mesa Marin Raceway. These three entertainment arenas are described in the following sections:

Bakersfield Speedway. The Bakersfield Speedway is an existing legal non-conforming auto racing facility that is located on the west side of North Chester Avenue, north of Perrol Road. Racing at the facility is limited to a specified racing season plus additional off-season events that were authorized. The County's legal non-conforming determination and subsequent conditional use permits specify that noise levels not exceed 100 dBA at the property line.

Lake Ming Boat Races. Lake Ming, located about nine miles northeast of central Bakersfield, is operated by the Kern County Parks and Recreation Department as a recreational lake for both power and sail boats. Several times each year, boat racing consisting of circle boat or drag boat racing, is permitted on the lake. Noise levels from drag racing events at four different locations around the lake were conducted in order to determine maximum noise levels (L_{max}).

The noise levels recorded indicate that drag boat racing activity on Lake Ming can conflict with noise-sensitive land uses in the area. A generalized 75 dB(A) maximum noise level contour for boat racing activities at Lake Ming based upon the above-described noise level data. Seventy-five dB(A) represents the maximum exterior daytime noise level currently allowed by the City of Bakersfield Noise Element for residential properties. CNEL contours for boat racing on Lake Ming were not prepared since such activities occur only a few times per year.

Mesa Marin Raceway. Mesa Marin Raceway is located near the intersection of State Routes 178 and State Route 184, approximately 8 miles east of central

Bakersfield. Classes of modified stock cars racing at the track include Street Stocks, Super Modified Stocks, and Open Competition Stocks.

Noise level measurements near Mesa Marin Raceway using typical median (L_{50}) noise levels recorded ranged from 61 to 70 dB(A) with typical maximum levels reaching 87 dB(A). At El Dorado Estates, approximately 2 miles from the raceway, maximum noise levels of 48-52 dB(A) were recorded. Noise measurements taken approximately 0.9 miles west of the raceway, maximum noise levels ranged from 58-62 dB(A). In the parking lot of the raceway, maximum noise levels of 60-67 dB(A) were recorded. It should be noted that in the parking lot, the earthen berm that borders the southern portion of the oval track, considerably reduces noise levels.

NOISE SENSITIVE AREAS

The following noise sensitive land uses have been identified in Metropolitan Bakersfield:

- Residential areas
- Schools
- Convalescent and acute care hospitals
- Parks and recreational areas

As suggested by the Office of Noise Control Guidelines, a community noise survey was conducted by the City to document existing noise exposure in areas of the community containing noise sensitive land uses. The purpose of the community noise survey was to define the existing noise environment in areas of the community outside the L_{dn} 60 dB contour where noise sensitive land uses are located; to provide a numerical check of noise levels determined by mathematical modeling techniques and to serve as a basis for establishing quantitative land use compatibility criteria and noise performance standards consistent with existing noise levels in the community. Since the geographic scope of Metropolitan Bakersfield is over 400 square miles, including both developed and undeveloped lands, noise measurements were conducted only in urbanized areas.

The results of the community noise survey indicate that the mean noise level as defined by CNEL in areas of the community where noise sensitive land uses are located is approximately 57 dB, ranging from 44 to 64 dB. Such levels are typical of suburban residential neighborhoods and are considered normally acceptable for all noise sensitive land uses according to criteria suggested by the Office of Noise Control Guidelines (Table 4.5-2).

The median noise level (L_{50}) is the criterion commonly used in noise ordinances or in other types of performance standards to assess the acceptability of noise sensitive land uses located in proximity to commercial or industrial noise sources. During the survey, median (L_{50}) noise levels at the sites monitored continuously for 24 hours or more ranged from 38 to 49 dB(A) during the daytime hours (7 a.m. to 10 p.m.). During the nighttime hours (10 p.m. to 7 a.m.), L_{50} levels ranged from 24 to 48 dB(A).

Based upon existing noise levels, the following issues and considerations have been concluded:

- Noise exposure from conflicting land uses and transportation corridors.
- Maintenance of acceptable noise levels.

STANDARDS OF SIGNIFICANCE

SIGNIFICANCE CRITERIA

In accordance with CEQA, the effects of a project are evaluated to determine if they will result in a significant adverse impact on the environment. An EIR is required to focus on these effects and offer mitigation measures to reduce or avoid any significant impacts which are identified. The criteria, or standards, used to determine the significance of impacts may vary depending on the nature of the project. Noise impacts resulting from the implementation of the General Plan Update could be considered significant if they cause any of the following results:

- 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 (refer to Section 10, *Effects Found Not To Be Significant*);
- 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 two miles of public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels, and/or
- For a project within the vicinity of a private helipads, would the project expose people residing or working in the project area to excessive noise levels (refer to Section 10, *Effects Found Not To Be Significant*).

Based on these standards, the effects of the General Plan Update have been categorized as either a “less than significant impact” or a “potentially significant impact.” If a potentially significant impact cannot be reduced to a less than significant level through the application of goals, policies, standards and mitigation, it is categorized as a significant and unavoidable impact. The standards used to evaluate the significance of impacts are often qualitative rather than quantitative because appropriate quantitative standards are either not available for many types of impacts or are not applicable for some types of projects.

SIGNIFICANCE OF CHANGES IN AMBIENT 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 and, therefore, is considered a significant noise impacts (refer to Table 4.5-10, *Significance of Changes in Cumulative Noise Exposure*).³ Changes from 3 to 5 dBA may be noticed by some individuals and are, therefore considered to constitute an adverse environmental impact, since under these conditions sporadic complaints may occur. Changes in community noise levels of less than 3 dBA are normally not noticeable and are therefore considered less than significant.⁴ Adverse impacts would result if increases in noise levels are audible (increases equal to, or greater than 3 dBA), although the noise level may not exceed the significant impact criteria specified above.

**TABLE 4.5-10
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 – 65 dBA	+ 3.0 dBA or more
> 65 dBA	+ 1.0 dBA or more
Sources: Federal Interagency Committee on Noise (FICON), Federal Highway Administration (FHWA), and Caltrans, 1997.	

IMPACTS AND MITIGATION MEASURES

CONSTRUCTION NOISE

- DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE GENERAL PLAN UPDATE WOULD INVOLVE CONSTRUCTION-RELATED NOISE.**

Level of Significance Before Policies/Mitigation: Potentially Significant Impact.

Impact Analysis: Typical activities associated with construction are a highly noticeable temporary noise source. Noise from construction activities are generated by two primary sources during construction phases: 1) the transport of workers and equipment to construction sites; and 2) the noise related to the construction itself. As currently underutilized or vacant parcels are developed in accordance with the General Plan Update, construction-related activities would generate noise from construction equipment, grading operations, and stationary equipment. These noise sources can be a nuisance to local residents and businesses. However, construction noise impacts are short-term and cease upon completion of each project.

³ Assessment of Noise with respect to Community Response, ISDR 1996, International Standardization, Switzerland.

⁴ Fundamental and Abatement of Highway Traffic Noise, Bolt, Beranek and Newman, 1973.

Furthermore, the City of Bakersfield Noise Ordinance regulates the time of day when construction is permitted to occur. The unincorporated portion of the Metropolitan area is not subject to a noise ordinance, although discretionary land use projects may include noise mitigation to conform with the Noise Element. Implementation of the Noise Ordinance would serve to reduce short-term construction noise impacts to less than significant levels.

Goals and Policies in the General Plan Update: The Noise Element contains the following goals and policies:

- NOI-G-1 Ensure that residents of the Bakersfield Metropolitan Area are protected from excessive noise and existing moderate levels of noise are maintained.

- NOI-G-2 Protect the citizens of the Planning area from the harmful effects of exposure to excessive noise, and protect the economic base of the area by preventing the encroachment of incompatible land uses near known noise-producing roadways, industries, railroads, airports and other sources.

- NOI-P-2 Prohibit new noise-sensitive land uses in noise-impacted areas unless effective mitigation measures are incorporated into project design to acceptable levels.

- NOI-P-3 Review discretionary industrial, commercial or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses. Additionally, the development of new noise-generating land uses which are not preempted from local noise regulation will be reviewed if resulting noise levels will exceed the performance standards contained within Table VII-4 in areas containing residential or other noise-sensitive land uses.

- NOI-P-4 Require noise level criteria applied to land uses other than residential or other noise-sensitive uses to be consistent with the recommendations of the California Office of Noise Control (see Figure VII-3).

- NOI-P-6 Encourage interjurisdictional coordination and cooperation with regard to noise impact issues.

Mitigation Measures: No mitigation measures beyond the goals, policies and implementation identified in the General Plan Update are proposed.

Level of Significance After Policies/Mitigation: Less Than Significant Impact.

TRAFFIC NOISE

- **FUTURE TRAFFIC NOISE LEVELS ASSOCIATED WITH IMPLEMENTATION OF GENERAL PLAN UPDATE WOULD CONTRIBUTE TO AN EXCEEDANCE OF NOISE STANDARDS RESULTING IN POTENTIAL NOISE IMPACTS TO SENSITIVE RECEPTORS.**

Level of Significance Before Policies/Mitigation: Potentially Significant Impact.

Impact Analysis: Noise levels adjacent to SR-99, SR-58, SR-178, highways/expressways and surface street links were modeled for the year 2020 to determine the location and extent of existing and future vehicular generated noise conditions. Table 15.5-1 (Appendix), *Exterior Noise Exposure Adjacent to Nearby Roadways, 2020, (Freeways)*, indicates SR-99 and SR-178 would generate noise levels at a distance of 100 feet from centerline that would exceed the 75 CNEL. All of the identified roadways on Table 15.5-1, including SR-99, Westside Parkway, Crosstown Freeway, SR-58, Highway 178 and Golden State Avenue, would generate noise levels between 70 and 75 CNEL.

Table 15.5-2 (Appendix), *Exterior Noise Exposure Adjacent to Nearby Roadways, 2020, (Highways/Expressways)*, Table 15.5-3 (Appendix), *Exterior Noise Exposure Adjacent to Nearby Roadways, 2020, (Arterial Streets)*, and 15.5-4 (Appendix), *Exterior Noise Exposure Adjacent to Nearby Roadways, 2020, (Collector Streets)*, show future noise levels (CNEL @ 100 feet) from highway/expressway, arterial and collector street segments, respectively. Appendix 15.5 also contains Table 15.5-5, *Roadway Noise Comparative Analysis for Years 2000 and 2020, (Freeways)*, Table 15.5-6, *Roadway Noise Comparative Analysis for Years 2000 and 2020, (Highways/Expressways)*, Table 15.5-7, *Roadway Noise Comparative Analysis for Years 2000 and 2020, (Arterial Streets)*, and Table 15.5-8, *Roadway Noise Comparative Analysis for Years 2000 and 2020, (Collector Streets)*. Table 15.5-5 through Table 15.5-8 indicate the noise increase and decrease for the analyzed roadways within Metropolitan Bakersfield, including freeways, highways/expressways, arterial, and collector roadway segments, respectively. Numerous roadway segments have been omitted from the comparative analysis due to lack of average daily trip information in the Kern COG traffic model.

Table 4.5-11, *Noise Impact Locations (Existing Roadways)*, shows existing roadways that would be impacted by noise from future (2020) traffic volumes. As indicated on Table 4.5-11, freeway noise would increase by approximately one to four dBA, with the exception of SR-178 (Oswell to Fairfax Road), which would incur a noise increase of approximately 6.52 dBA. Alfred Harrell Expressway would experience a noise increase of approximately 5 to 12 dBA. Numerous arterial streets (120 roadway segments) would also incur increases in noise levels. The arterial streets that would have the largest increases in noise levels include: SR-58, Pacheco Road, Coffee Road, Fairfax Road, Buena Vista Road, Allen Road and Q Street. Each of these roadways would have roadway segments that would experience an increase in noise levels greater than 8 dBA. The greatest amount of noise increase would occur on Pacheco Road, between Old River Road and Gosford Road.

Table 4.5-12, *Noise Impact Locations (Future Roadways)*, cites the impact location, existing noise level and anticipated level of increase for these areas. As indicated on

**TABLE 4.5-11
NOISE IMPACT LOCATIONS (EXISTING ROADWAYS)**

Roadway	Roadway Link Segment	Existing dBA CNEL	Increase
FREEWAYS			
State Route 99:	North of Seventh Standard Road	71.82	1.85
	Seventh Standard Road to Olive Drive	72.71	2.02
	Olive Drive to Union Avenue (SR-204)	73.04	1.49
	SR-58 (Rosedale Hwy) to Union Avenue (SR-204)	73.49	1.6
	SR-58 (Rosedale Highway) to SR-58 (east of 99)	74.92	1.68
	Freeway 58 (east of 99) to Ming Avenue	74.59	1.07
	Ming Avenue to White Lane	73.69	1.01
	White Lane to Panama Lane	71.9	2.73
	Panama Lane to Taft Hwy (SR-119)	70.78	3.4
State Route 58:	South of Taft Hwy (SR-119)	69.78	2.53
	Chester Avenue to Union Avenue	72.16	1.32
	Union Avenue to Cottonwood Road	71.9	1.8
	Cottonwood Road to Mt Vernon Avenue	72.09	1.8
	Mt Vernon Avenue to Oswell Street	71.11	2.37
	Oswell Street to Fairfax Road	70.11	2.91
	Fairfax Road to Weedpatch Hwy (SR-184)	69.79	2.61
State Route 178:	East of Weedpatch Hwy (SR-184)	67.72	2.64
	Union Avenue to Beale Avenue	71.98	2.48
	Beale Avenue to Mt Vernon Avenue	71.63	3.89
	Mt Vernon Avenue to Oswell Street	70.2	3.97
	Oswell Street to Fairfax Road	67.1	6.52
Golden State Avenue (SR-204):	Airport Drive to F Street	70.48	3.67
HIGHWAYS/EXPRESSWAYS			
Alfred Harrell Expressway:	West of Fairfax Road	57.94	7.52
	Fairfax Road to Lily Drive	54.86	11.91
	Lily Drive to SR-178	54.26	5.18
ARTERIAL STREETS			
State Route 58:	Allen Road to Calloway Drive	65.49	1.52
	Calloway Drive to Coffee Road	66.57	2.81
	Coffee Road to Fruitvale Avenue	67.34	2.51
	Fruitvale Avenue to SR-99	66.44	2.35
State Route 178:	West of Kern Canyon Road	62.94	8.19
	Kern Canyon Road to Alfred Harrell Expressway	61.29	6.79
Golden State Avenue (SR-204):	Chester Avenue to SR-178	64.24	5.94
	SR-178 to Union Avenue	62.10	4.35
Morning Drive:	Niles Street to Edison Hwy	59.87	6.96
Weedpatch Highway:	Edison Hwy to Brundage Lane	61.96	5.81
	Brundage Lane to SR-58	62.68	3.47
	Panama Lane to Panama Road	60.98	3.57
Kern Canyon Road:	Morning Drive to SR-178	60.76	7.00
Taft Hwy:	H Street to Union Avenue	63.20	3.34
Seventh Standard Road:	West of Calloway Drive	61.99	3.04
	Calloway Drive to Coffee Road	61.99	6.40
	Coffee Road to Airport Drive	64.76	5.12
Manor Street:	Chester Avenue to China Grade Road	62.83	5.77
	China Grade Road to Olive Drive	64.02	4.04
	Olive Drive to Columbus Street	65.46	4.92

**TABLE 4.5-11 – CONTINUED
NOISE IMPACT LOCATIONS (EXISTING ROADWAYS)**

Roadway	Roadway Link Segment	Existing dBA CNEL	Increase
China Grade Loop:	Manor Street to Round Mountain Road	60.59	7.40
	Round Mountain Road to Alfred Harrell Hwy	60.3	7.46
China Grade Loop Expressway:	China Grade Loop Expressway	55.35	5.39
Olive Drive:	West of Coffee Road	57.44	7.70
	Coffee Road to Fruitvale Avenue	60.79	5.30
Hageman Road:	Jewetta Avenue to Calloway Drive	62.34	3.85
	Calloway Drive to Coffee Road	62.62	5.00
	Coffee Road to Fruitvale Avenue	61.10	6.61
Columbus Street:	River Blvd to Mt Vernon Ave	62.66	3.05
Brimhall Road:	Jewetta Ave to Calloway Drive	62.01	4.41
Niles Street:	Union Ave to Beale Ave	57.35	6.76
	Oswell Street to Fairfax Road	61.52	3.10
Truxtun Avenue:	West of Union Avenue	60.26	3.05
California Avenue:	Stockdale Hwy to Mohawk Street	64.47	3.25
	Mohawk Street to Oak Street	64.51	3.58
	H Street to Baker Street	60.06	3.69
Edison Hwy:	California Avenue to Oswell Street	60.87	5.73
	Oswell Street to Fairfax Road	59.71	5.92
Stockdale Highway:	Allen Road to Buena Vista Road	65.74	1.91
	Buena Vista Road to Old River Road	64.08	4.93
	Old River Road to Gosford Road	66.56	1.54
	Gosford Road to El Rio Drive	56.67	9.61
Brundage Lane:	Cottonwood Ave to Mt Vernon Ave	60.30	4.83
Ming Avenue:	Buena Vista Road to Old River Road	61.54	6.57
	Old River Road to Gosford Road	66.62	2.52
	Ashe Road to New Stine Road	65.87	2.57
	Hughes Lane to H Street	61.09	4.33
	H Street to P Street	60.09	5.09
White Lane:	Old River Road to Gosford Road	68.55	2.67
	Gosford Road to Ashe Road	69.59	2.63
	Ashe Road to Stine Road	67.90	1.95
	Stine Road to Wible Road	68.98	1.62
Pacheco Road:	Buena Vista Road to Old River Road	53.26	6.61
	Old River Road to Gosford Road	52.77	10.36
Panama Lane:	Buena Vista Road to Old River Road	59.65	6.59
	Old River Road to Gosford Road	59.65	6.59
	Gosford Road to Ashe Road	61.58	6.82
	Ashe Road to Stine Road	63.88	5.15
	Stine Road to Akers Road	63.29	6.59
	Akers Road to Wible Road	64.95	3.06
	East of Wible Road	65.12	3.89
	West of H Street	64.05	3.67
	H Street to Union Avenue	61.74	4.11
	Union Avenue to Cottonwood Road	59.87	5.48
Cottonwood Road to Fairfax Road	59.13	5.35	
	Fairfax Road to Weedpatch Hwy (SR-184)	57.43	6.77

**TABLE 4.5-11 – CONTINUED
NOISE IMPACT LOCATIONS (EXISTING ROADWAYS)**

Roadway	Roadway Link Segment	Existing dBA CNEL	Increase
Taft Hwy:	H Street to Union Ave	63.20	3.34
Panama Road:	Union Ave to Cottonwood Road	61.85	4.59
Allen Road:	Brimhall Road to Stockdale Hwy	61.26	4.15
Jewetta Avenue:	North of Hageman Road	56.73	5.06
Calloway Road:	Seventh Standard Road to Snow Road	59.61	5.42
	South of Hageman Road	64.72	5.20
	North of Brimhall Road	61.49	4.87
	Brimhall Road to Stockdale Hwy	65.25	5.76
Coffee Road:	Seventh Standard Road to Snow Road	59.15	8.61
	Snow Road to Olive Drive	63.51	5.10
	Olive Drive to Hageman Road	65.16	4.48
	Hageman Road Brimhall Road	68.24	1.76
	Brimhall Road to Stockdale Hwy	69.12	2.44
Airport Drive:	North of China Grade Loop	59.19	7.74
	China Grade Loop to Norris Road	62.79	5.05
	Norris Road to Olive Drive	64.11	4.56
	South of Olive Drive	65.33	3.68
Chester Avenue:	Seventh Standard Road to China Grade Loop	60.00	3.40
Fairfax Road:	North of Panorama Drive	58.97	8.27
	Panorama Drive to Auburn Street	61.49	5.57
	Auburn Street to College Avenue	62.85	4.28
	College Avenue to Niles Street	62.59	3.40
	Niles Street of Edison Hwy	62.61	3.45
	Edison Hwy to Brundage Lane	62.65	3.94
Buena Vista Road:	Stockdale Hwy to Ming Avenue	64.37	5.73
	Ming Avenue to White Lane	63.18	4.82
	White Lane to Pacheco Road	60.61	7.20
	Pacheco Road to Panama Lane	59.28	8.06
Old River Road:	Stockdale Hwy to Ming Avenue	65.53	3.99
	Ming Avenue to White Lane	63.62	6.85
	South of White Lane	57.18	7.56
Gosford Road:	Stockdale Hwy to Ming Avenue	68.08	2.77
	Ming Avenue to White Lane	66.85	2.53
	White Lane to Pacheco Road	65.64	3.77
	Pacheco Road to Panama Lane	65.06	3.02
Wible Road:	Brundage Lane to Ming Avenue	60.67	6.32
	Ming Avenue to White Lane	62.31	3.77
	Panama Lane to Hosking Road	63.05	4.33
	Hosking Road to Taft Hwy (SR-119)	58.83	5.82
Union Avenue:	Columbus Street to Niles Street	63.63	3.02
	South of Brundage Lane	66.62	1.10
	White Lane Panama Lane	61.6	4.35
Columbus Street:	Chester Avenue to Q Street	60.24	4.40
	Q Street to Union Avenue	60.22	4.19
	East of Union Avenue	61.42	3.82
Auburn Street:	Oswell Street to Fairfax Road:	59.74	6.75

**TABLE 4.5-11 – CONTINUED
NOISE IMPACT LOCATIONS (EXISTING ROADWAYS)**

Roadway	Roadway Link Segment	Existing dBA CNEL	Increase
Edison Hwy:	West of California Avenue	58.97	5.26
Brimhall Road:	Calloway Drive to Coffee Road	65.16	2.47
Pacheco Road:	Old river Road to Gosford Road	53.26	9.87
Allen Road:	Seventh Standard Road to Hageman Road	54.81	8.31
Q Street:	Truxtun Avenue to California Avenue:	54.79	8.32
P Street:	California Avenue to 4th Street	54.81	6.29
	4th Street to Brundage Lane	56.12	5.79
	Brundage Lane to Belle Terrace	56.45	5.31
	Belle Terrace to Ming Avenue	58.27	3.70
COLLECTORS			
Summers Street:	Baker Street to Beale Avenue	54.68	6.48
	East of Beale Avenue	54.68	6.32
Haley Street:	South of Columbus Street	60.14	7.46
Akers Road:	Harris Road to Panama Lane	54.17	5.15
Hughes Lane:	Ming Avenue to Wilson Road	57.14	5.42

Note: Refer To Table 4.5-10, *Significance Of Changes In Cumulative Noise Exposure*, for definition of noise impacted locations.

**TABLE 4.5-12
NOISE IMPACT LOCATIONS (FUTURE ROADWAYS)**

Future Roadways over 65 dBA CNEL	Roadway Segment	2020 dBA CNEL
FREEWAYS		
Westside Parkway:	West of Allen Road	69.03
	Allen Road to SR-99	73.81
Crosstown Freeway:	SR-99 to SR-178	73.90
ARTERIAL STREETS		
Morning Drive:	Alfred Harrell Expressway to Paladino Drive	66.41
	Paladino Drive to Panorama Drive	66.09
	Panorama Drive to Auburn Street	65.34
Enos Lane (SR-43):	Stockdale Highway to Panama Lane	65.23
Columbus Street:	Union Avenue to Alta Vista	65.24
Brimhall Road:	Jenkins to Allen Road	65.01
	Calloway Drive to Coffee Road	67.63
Truxtun Avenue:	Coffee Road to Mohawk Street	65.58
	Mohawk Street to Oak Street	66.95
Panama Lane:	Enos Lane (SR-43) to Buena Vista Road	65.85
Paladino Drive:	Fairfax Road to Morning Drive	67.03
Allen Road:	Santa Fe Way to SR-58	65.20
Airport Drive:	James Road to Seventh Standard Road	65.90
	South of Seventh Standard Road	66.98
Pierce Road:	North of Stockdale Highway	66.37
Chester Avenue:	James Road to Seventh Standard Road	65.75
Union Avenue:	California Avenue (SR-204) to Brundage Lane	66.99
COLLECTOR STREETS		
None		

Table 4.5-12, the Westside Parkway and Crosstown Freeway would both have noise levels that would exceed 65 dBA. Also shown are numerous arterial streets that would exceed the 65 dBA. However, no future collector streets would exceed 65 dBA.

Based on Table 4.5-11 and 4.5-12, existing sensitive land uses, primarily residential areas, may be exposed to increased noise levels due to traffic increases. Due to the fact that development between years 2000 and 2020 would exacerbate a current exceedence of CNEL noise standards along several roadways modeled adjacent to sensitive land uses, significant noise impacts would occur. The General Plan Update provides goals and policies that are intended to reduce the severity of noise levels associated with vehicular traffic as a result of buildout of Metropolitan Bakersfield. The General Plan Update includes implementation measures which address traffic noise in Metropolitan Bakersfield. Implementation programs include review of proposed development plans to ensure compliance with City and County noise control standards. However, it is concluded that goals, policies and associated implementation cited in the General Plan Update would not reduce noise impacts to less than significant levels. No feasible mitigation measures have been identified to reduce the significance of impacts. Thus, significant and unavoidable noise impacts are concluded to occur with buildout in accordance with the General Plan.

Goals and Policies in the General Plan Update: The Noise, Land Use and Circulation Elements include the following goals and policies:

- NOI-G-1 Ensure that residents of the Bakersfield Metropolitan Area are protected from excessive noise and existing moderate levels of noise are maintained.

- NOI-G-2 Protect the citizens of the Planning area from the harmful effects of exposure to excessive noise, and protect the economic base of the area by preventing the encroachment of incompatible land uses near known noise-producing roadways, industries, railroads, airports and other sources.

- NOI-P-1 Identify noise-impact areas exposed to existing or projected noise levels exceeding 65 dB CNEL (exterior) or the performance standards described in Table VII-4 (General Plan Update). The noise exposure contour maps on file at the City of Bakersfield and County of Kern indicate areas where existing and projected noise exposures exceed 65 dB CNEL (exterior) for the major noise sources identified.

- NOI-P-2 Prohibit new noise-sensitive land uses in noise-impacted areas unless effective mitigation measures are incorporated into project design to acceptable levels.

- NOI-P-3 Review discretionary industrial, commercial or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses. Additionally, the development of new noise-generating land uses which are not preempted from local noise regulation will be reviewed if resulting noise levels will

exceed the performance standards contained within Table VII-4 in areas containing residential or other noise-sensitive land uses.

- NOI-P-4 Require noise level criteria applied to land uses other than residential or other noise-sensitive uses to be consistent with the recommendations of the California Office of Noise Control (see Figure VII-3).
- NOI-P-5 Encourage vegetation and landscaping along roadways and adjacent to other noise sources in order to increase absorption of noise.
- NOI-P-6 Encourage interjurisdictional coordination and cooperation with regard to noise impact issues.
- NOI-P-7 Establish threshold standards for the determination of the existence of cumulative noise impacts that are significant, and will therefore require mitigation to achieve acceptable noise standards that do not exceed the standards contained in this element.
- LU-P-54 The developer shall be responsible for all on-site costs incurred as a result of the proposed project, in addition to a proportional share of off-site costs incurred in service extension or improvements. The availability of public or private services or resources shall be evaluated during discretionary project consideration. Availability may affect project approval or result in a reduction in size, density, or intensity otherwise indicated in the general plan's map provisions.
- LU-P-55 Provide for the mitigation of significant noise impacts on adjacent sensitive uses from transportation corridor improvements.
- LU-P-56 Review and evaluate the land use designations of the plan on agreement of a final route alignment of the Route 178/58 Freeway, and any other future freeways, to ensure appropriate land use relationships, including:
- a) Adequate setbacks, buffers, and/or restrictions on residential density to prevent noise impacts;
 - b) Potential for commercial services at principal off-ramps;
 - c) Potential for industrial uses which can benefit by close freeway proximity.
- CIR/ST-G-3 Minimize the impact of truck traffic on circulation, and on noise sensitive land uses.

Mitigation Measures: No mitigation measures beyond the goals, policies and implementation measures identified in the General Plan Update are available to reduce this impact to a less than significant level.

Level of Significance After Policies/Mitigation: Significant and unavoidable noise impact would occur at the locations identified on Tables 4.5-11 and 4.5-12.

RAILWAY NOISE

□ FUTURE OPERATION OF RAILWAYS WOULD BE A SIGNIFICANT NOISE SOURCE TO LAND USES LOCATED IN METROPOLITAN BAKERSFIELD.

Level of Significance Before Policies/Mitigation: Potentially Significant Impact.

Impact Analysis: As previously stated, Metropolitan Bakersfield is traversed by two freight train lines: Burlington Northern-Santa Fe Railway (BNSE) and Southern Pacific Transportation Company (SPTCo). In addition to the freight train lines, Amtrak provides rail service to and from Bakersfield and the Central Valley cities to the north. Railroad noise contours are on file at the City of Bakersfield Planning Department. Railroad noise contours should be considered as estimates of worst-case exposure since no adjustments have been made for shielding provided by intervening topography or buildings. Train traffic on rail lines is considered to contribute to a relatively minor source of noise within the community due to the low frequency of operation. Although noise levels from individual train movements on railways produce short term noise impacts when they occur, such impacts do not occur frequently enough to produce a significant noise exposure as defined by CNEL. In summary, implementation of the General Plan Update goals and policies, as stated below, would ensure that noise impacts associated with the operation of railways would remain less than significant under future conditions.

Goals and policies in the General Plan Update: The Noise Element includes the following goals and polices:

- | | |
|---------|---|
| NOI-G-1 | Ensure that residents of the Bakersfield Metropolitan Area are protected from excessive noise and existing moderate levels of noise are maintained. |
| NOI-G-2 | Protect the citizens of the Planning area from the harmful effects of exposure to excessive noise, and protect the economic base of the area by preventing the encroachment of incompatible land uses near known noise-producing roadways, industries, railroads, airports and other sources. |
| NOI-P-1 | Identify noise-impact areas exposed to existing or projected noise levels exceeding 65 dB CNEL (exterior) or the performance standards described in Table VII-4. The noise exposure contour maps on file at the City of Bakersfield and County of Kern indicate areas where existing and projected noise exposures exceed 65 dB CNEL (exterior) for the major noise sources identified. |
| NOI-P-2 | Prohibit new noise-sensitive land uses in noise-impacted areas unless effective mitigation measures are incorporated into project design to acceptable levels. |
| NOI-P-3 | Review discretionary industrial, commercial or other noise-generating land use projects for compatibility with nearby |

noise-sensitive land uses. Additionally, the development of new noise-generating land uses which are not preempted from local noise regulation will be reviewed if resulting noise levels will exceed the performance standards contained within Table VII-4 in areas containing residential or other noise-sensitive land uses.

- NOI-P-4 Require noise level criteria applied to land uses other than residential or other noise-sensitive uses to be consistent with the recommendations of the California Office of Noise Control (see Figure VII-3).
- NOI-P-5 Encourage vegetation and landscaping along roadways and adjacent to other noise sources in order to increase absorption of noise.
- NOI-P-6 Encourage interjurisdictional coordination and cooperation with regard to noise impact issues.
- NOI-P-7 Establish threshold standards for the determination of the existence of cumulative noise impacts that are significant, and will therefore require mitigation to achieve acceptable noise standards that do not exceed the standards contained in this element.

Mitigation Measures: No mitigation measures beyond the goals, policies and implementation measures identified in the General Plan Update are proposed.

Level of Significance After Policies/Mitigation: Less Than Significant Impact.

AIRCRAFT NOISE

- FUTURE OPERATION OF THE BAKERSFIELD MUNICIPAL AIRPORT AND MEADOWS FIELD AIRPORT COULD BE A SIGNIFICANT NOISE SOURCE TO LAND USES LOCATED IN METROPOLITAN BAKERSFIELD.**

Level of Significance Before Policies/Mitigation: Potentially Significant Impact.

Impact Analysis: As indicated in the Airport Land Use Compatibility Plan (ALUCP) for Kern County, the land uses within the 65 CNEL noise contour line for the Bakersfield Municipal Airport are designated for public facility and/or commercial/industrial uses. Land use designations within the 60 CNEL noise contour line primarily include public facility uses and commercial/industrial uses. A very small portion of land, on the southeast corner of E. Pacheco Road and Sparks Street, is designated for medium density residential uses and is located within the 60 CNEL noise contour. Similarly, in accordance with the AELUP, the land uses within the 65 CNEL noise contour line for the Meadows Field Airport are designated for public facility uses and/or commercial/industrial uses. A small portion of land on the east side of the intersection of Airport Drive and Norris Road, is designated for residential uses and is located within the 60 CNEL noise contour.

While aircraft activity at both airports, Meadows Field and Bakersfield Municipal Airport, are anticipated to increase, future aircraft operations would be required to comply with the provisions set forth in the AELUP. Additionally, master plans for

each airport have been developed that will guide future development and operations at the airport sites. The master plans would account for noise impacts created by expansion of facilities and increased activity at the airports. Implementation of goals and policies in the General Plan Update, as stated below, would ensure that noise impacts associated with Meadows Field and Bakersfield Municipal Airport operations would remain less than significant under future conditions.

Goals and Policies in the General Plan Update: The Noise and Circulation Elements include the following goals and policies:

- NOI-G-1 Ensure that residents of the Bakersfield Metropolitan Area are protected from excessive noise and existing moderate levels of noise are maintained.

- NOI-G-2 Protect the citizens of the Planning area from the harmful effects of exposure to excessive noise, and protect the economic base of the area by preventing the encroachment of incompatible land uses near known noise-producing roadways, industries, railroads, airports and other sources.

- NOI-P-1 Identify noise-impact areas exposed to existing or projected noise levels exceeding 65 dB CNEL (exterior) or the performance standards described in Table VII-4. The noise exposure contour maps on file at the City of Bakersfield and County of Kern indicate areas where existing and projected noise exposures exceed 65 dB CNEL (exterior) for the major noise sources identified.

- NOI-P-2 Prohibit new noise-sensitive land uses in noise-impacted areas unless effective mitigation measures are incorporated into project design to acceptable levels.

- NOI-P-3 Review discretionary industrial, commercial or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses. Additionally, the development of new noise-generating land uses which are not preempted from local noise regulation will be reviewed if resulting noise levels will exceed the performance standards contained within Table VII-4 in areas containing residential or other noise-sensitive land uses.

- NOI-P-4 Require noise level criteria applied to land uses other than residential or other noise-sensitive uses to be consistent with the recommendations of the California Office of Noise Control (see Figure VII-3).

- NOI-P-5 Encourage vegetation and landscaping along roadways and adjacent to other noise sources in order to increase absorption of noise.

- NOI-P-6 Encourage interjurisdictional coordination and cooperation with regard to noise impact issues.

NOI-P-7 Establish threshold standards for the determination of the existence of cumulative noise impacts that are significant, and will therefore require mitigation to achieve acceptable noise standards that do not exceed the standards contained in this element.

CIR/AP-P-4 Encourage and provide for the orderly development of public use airports within the Planning area and prevent the creation of new noise and safety impacts.

Mitigation Measures: No mitigation measures beyond the goals, policies and policies and implementation measures identified in the General Plan Update have been proposed.

Level of Significance After Policies/Mitigation: Less Than Significant Impact.

STATIONARY NOISE

□ **STATIONARY NOISE SOURCES WITHIN METROPOLITAN BAKERSFIELD MAY IMPACT ADJACENT LAND USES.**

Level of Significance Before Policies/Mitigation: Potentially Significant Impact.

Impact Analysis: A variety of stationary noise sources are located throughout Metropolitan Bakersfield, primarily consisting of commercial and industrial mechanical equipment, air conditioning units, compressors and similar equipment. This equipment is typically fitted with noise muffling devices. In addition, as part of the City/County approval for any land use involving such stationary noise sources, the City/County requires an acoustic study to demonstrate that the stationary noise source would not exceed Noise Ordinance limits at the adjacent property line. The General Plan Update includes implementation which address stationary source noise in Metropolitan Bakersfield. Implementation programs include review of proposed development plans to ensure compliance with City and County noise control standards. Thus, implementation of goals, policies and implementation in the General Plan Update would serve to ensure that stationary noise impacts are reduced to less than significant levels.

Goals and Policies in the General Plan Update: The Noise, Land Use and Circulation Elements include the following goals and policies:

NOI-G-1 Ensure that residents of the Bakersfield Metropolitan Area are protected from excessive noise and existing moderate levels of noise are maintained.

NOI-G-2 Protect the citizens of the Planning area from the harmful effects of exposure to excessive noise, and protect the economic base of the area by preventing the encroachment of incompatible land uses near known noise-producing roadways, industries, railroads, airports and other sources.

NOI-P-1 Identify noise-impact areas exposed to existing or projected noise levels exceeding 65 dB CNEL (exterior) or the performance standards described in Table VII-4. The noise exposure contour

maps on file at the City of Bakersfield and County of Kern indicate areas where existing and projected noise exposures exceed 65 dB CNEL (exterior) for the major noise sources identified.

- NOI-P-2 Prohibit new noise-sensitive land uses in noise-impacted areas unless effective mitigation measures are incorporated into project design to acceptable levels.
- NOI-P-3 Review discretionary industrial, commercial or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses. Additionally, the development of new noise-generating land uses which are not preempted from local noise regulation will be reviewed if resulting noise levels will exceed the performance standards contained within Table VII-4 in areas containing residential or other noise-sensitive land uses.
- NOI-P-4 Require noise level criteria applied to land uses other than residential or other noise-sensitive uses to be consistent with the recommendations of the California Office of Noise Control (see Figure VII-3).
- NOI-P-5 Encourage vegetation and landscaping along roadways and adjacent to other noise sources in order to increase absorption of noise.
- NOI-P-6 Encourage interjurisdictional coordination and cooperation with regard to noise impact issues.
- NOI-P-7 Establish threshold standards for the determination of the existence of cumulative noise impacts that are significant, and will therefore require mitigation to achieve acceptable noise standards that do not exceed the standards contained in this element.
- LU-P-54 The developer shall be responsible for all on-site costs incurred as a result of the proposed project, in addition to a proportional share of off-site costs incurred in service extension or improvements. The availability of public or private services or resources shall be evaluated during discretionary project consideration. Availability may affect project approval or result in a reduction in size, density, or intensity otherwise indicated in the general plan's map provisions.
- CIR/ST-P-16 Require that truck access to commercial and industrial properties be designed to minimize impacts on adjacent residential parcels.

Mitigation Measures: No mitigation measures beyond the goals, policies and implementation measures identified in the General Plan Update are proposed.

Level of Significance After Policies/Mitigation: Less Than Significant Impact.

UNAVOIDABLE SIGNIFICANT IMPACTS

Implementation of the General Plan Update is anticipated to result in a general increase in ambient noise levels within Metropolitan Bakersfield, including an exacerbation of current noise standards and significance criteria exceedences at numerous locations, potentially exposing existing and future residential areas to noise levels greater than 65 CNEL. Following implementation of goals, policies and implementation measures contained in the General Plan Update, significant and unavoidable noise impacts would remain for the roadway segments identified in Tables 4.5-11 and 4.5-12.