4.15 NOISE

INTRODUCTION

Noise is often defined simply as unwanted sound, and thus is a subjective reaction to characteristics of a physical phenomenon. The growth anticipated under the General Plan (including the Proposed Project) could cause increased activity of existing and future noise sources and could result in existing or future noise sensitive uses being exposed to noise sources. The noise consequences of the population and employment projections including the General Plan's policies and measures are addressed in this section.

ENVIRONMENTAL SETTING

The standard unit of sound amplitude measurement is the decibel (dB). The A-weighted decibel scale (dBA) approximates the sensitivity of the human ear to the audible range of frequencies. Rating scales are available to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon communities is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs.

- L_{eq}, the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

- Both the Community Noise Equivalent Level (CNEL) and the day-night average noise level (L_{dn}), are 24-hour average L_{eq}s with an additional "penalty" added to noise occurring during the evening and nighttime hours to account for the greater nocturnal noise sensitivity of people.

- L_n is the value of noise levels that are exceeded "n" percent of the time. This is used to characterize sustained versus unsustained noise levels. For instance, L_{50} is the noise level that is exceeded 50 percent of the time during a measurement period.

Existing noise conditions in Fresno County are addressed in Chapter 10, Noise, of the *General Plan Background Report (Background Report)*, which is incorporated by reference. To summarize, roadway traffic is probably the most pervasive source of noise throughout the County. The most prevalent individual traffic noise sources are the two primary north-south freeways Interstate 5 (I-5) and State Route 99 (SR 99), and the many other major roadways within the County including sections of SRs 33, 41, 43, 63,145, 168, 180, 198, and 269 (and Herndon, Shaw, and Clovis Avenues within Fresno and Clovis city limits).

Other expressways and arterials within the unincorporated County also have substantial local influences on noise levels. The most intense traffic noise sources tend to be those with heavy truck traffic and/or high proportions of nighttime traffic. Cross-sectional views of distances to existing 70, 65, and 60 dBA L_{dn} noise contours were provided in Charts 10-4 through 10-8 the *Background Report* for selected segments of roadways. As illustrated in the charts, existing noise levels along many of these roadways are above 70 dBA L_{dn}. For heavily-traveled portions of SR 99, the noise is above 70 dBA L_{dn} for uninsulated areas within 500 feet of the centerline. Table 4.15-1 lists the estimated noise levels and distances to noise contours for the roadway segments depicted in Charts 10-4 through 10-8.

TABLE 4.15-1

ESTIMATED EXISTING NOISE LEVELS AND DISTANCES TO NOISE CONTOURS

Roadway/Railroad	Baseline 1995 L_{dn} (dBA)[1]	Distance from Centerline[2]		
		70 dBA	65 dBA	60 dBA
I-5: Panoche Road to Nees Avenue	84	340	720	1550
SR 99: Adams to Clovis	85	510	1200	2620
SR 33: South of Manning	73	70	170	400
SR 41: North of Mt Whitney to Harlan	76	120	260	590
SR 145: South of SR 180	78	140	330	700
BNSF Railroad Mainline	79	170	410	870
UP/SP Railroad Mainline	78	130	270	570

Notes: [1]L_{dn} estimated at 50 feet from centerline.
[2]Distance measured in feet from centerline.
SOURCE: EIP Associates, 1999.

Besides roadway noise, railroads, airports, and fixed sources of noise also affect localities throughout the County. Both the Burlington Northern/Santa Fe and the Union Pacific (formerly Southern Pacific) railway companies operate north-south mainlines through the County. Along these routes, fast-moving freight and passenger trains are sources of whistle or warning noise, engine noise, and noise from rolling stock. The primary airports located in the County are the Fresno Yosemite International Airport, the Fresno-Chandler Downtown Airport, the Coalinga Airport, and the Lemoore Naval Air

Station. Other smaller general aviation facilities operate in cities throughout the County but are much less important sources of noise because their traffic tends to be less frequent and made up of smaller, quieter aircraft. Existing noise level contour maps for the major roadways, the railroads, and the airports are shown in the *Background Report*. Noise levels are above 70 dBA L_{dn} within about 150 feet of the railroads. Contour maps for each of the airports show that most existing residential development is outside the 60 dBA CNEL contours.

Industrial and other fixed noise sources are dispersed throughout the County. According to the *Background Report*, the notable noise generating industrial sources are agricultural processing operations and mining or building/landscaping materials processing, such as cement batch plants. Most of the activities generate relatively sustained noise levels rather than series of discrete peak events. The *Background Report* provides a description of the hours of operation of some of these facilities and also provides a description of existing noise levels monitored in their vicinity. As shown in the *Background Report*, noise levels were higher than 50 dBA L_{50} near many of the fixed sources.

The results of a community noise survey are also presented in the *Background Report*. The community noise survey shows that most of the communities in the unincorporated portions of the County have light levels of activity and are relatively quiet. Measured daytime noise levels ranged between the high-30s dBA to the mid-50s dBA L_{eq}.

REGULATORY SETTING

Federal, state, and local government each have some responsibility for providing environmental noise control. The Office of Noise Control at the California Department of Health Services published guidelines for evaluating the compatibility of various land uses as a function of community noise exposure and created a model community noise ordinance. The *Land Use Compatibility for Community Noise Environments* chart is provided in the *Background Report* (Chart 10-1 of the *Background Report*; also available from OPR, 1998), and the components of the *Model Community Noise Control Ordinance* are outlined in the *Background Report*. State-level noise control regulations apply to new multifamily residential construction through the California State Building Code (Title 24 of the California Code of Regulations), which establishes standards for building design that will limit maximum L_{dn} or CNEL noise levels to 45 dBA in any habitable room.

Other state and federal means of noise control include noise limits for transportation sources in the California Vehicle Code and highway noise abatement criteria from the Federal Highway Administration and the California Department of Transportation. The Federal Aviation Regulation Part 150 Airport Noise Compatibility Program is designed to reduce the effect of airport noise on the surrounding communities as airports expand, and Title 21 of the California Code of Regulations establishes noise standards for airports and sets forth the responsibilities of the regional Airport Land Use Commissions, which prepare land use compatibility plans with thorough evaluation of airport noise.

The Fresno County Noise Control Ordinance (Fresno County Code Chapter 8.40) includes baseline standards for exterior and interior noise that are consistent with the previous Fresno County General Plan Noise Element, adopted in December of 1975. County standards apply specifically to noise exposure at residences, schools, hospitals, churches, and libraries. The ordinance provides exterior and interior noise standards to be achieved during both daytime and nighttime hours, and it provides limitations on construction activities. These standards are shown in the *Background Report* (Tables 10-10a and 10-10b).

PLAN ELEMENTS

The Fresno County General Plan includes a Health and Safety Element with noise policies to manage sources of noise and protect noise sensitive land uses. Implementation of the General Plan anticipates growth of population, employment, and developed land uses as shown in the Project Description. Expansion of County-wide population, employment, and developed land uses each lead to the expansion of activities that have the potential to generate adverse noise effects.

The Draft General Plan contains the following policies to address noise.

Policy HS-G.1 The County shall require that all proposed development incorporate design elements necessary to minimize adverse noise impacts on surrounding land uses.

Policy HS-G.2 The County shall require new roadway improvement projects to achieve and maintain the normally acceptable noise levels shown in Chart HS-1: "Land Use Compatibility for Community Noise Environments."

Policy HS-G.3 The County shall allow the development of new noise-sensitive land uses (which include, but are not limited to, residential neighborhoods, schools, and hospitals) only in areas where existing or projected noise levels are "acceptable" according to the Chart HS-1: "Land Use Compatibility for Community Noise Environments." Noise mitigation measures may be required to reduce noise in outdoor activity areas and interior spaces to these levels.

Policy HS-G.4 So that noise mitigation may be considered in the design of new projects, the County shall require an acoustical analysis as part of the environmental review process where:

a. Noise sensitive land uses are proposed in areas exposed to existing or projected noise levels that are "generally unacceptable" or higher according to the Chart HS-1: "Land Use Compatibility for Community Noise Environments;"
b. Proposed projects are likely to produce noise levels exceeding the levels shown in the County's Noise Control Ordinance at existing or planned noise-sensitive uses.

Policy HS-G.5 Where noise mitigation measures are required to achieve acceptable levels according to land use compatibility or the Noise Control Ordinance, the County shall place emphasis of such measures upon site planning and project design. These measures may include, but are not limited to, building orientation, setbacks, earthen berms, and building construction practices. The County shall consider the use of noise barriers, such as soundwalls, as a means of achieving the noise standards after other design-related noise mitigation measures have been evaluated or integrated into the project.

Policy HS-G.6 The County shall regulate construction-related noise to reduce impacts on adjacent uses in accordance with the County's Noise Control Ordinance.

Policy HS-G.7 Where existing noise-sensitive uses may be exposed to increased noise levels due to roadway improvement projects, the County shall apply the following criteria to determine the significance of the impact:

a. Where existing noise levels are less than 60 dBLdn at outdoor activity areas of noise-sensitive uses, a 5 dBLdn increase in noise levels will be considered significant;
b. Where existing noise levels are between 60 and 65 dBLdn at outdoor activity areas of noise-sensitive uses, a 3 dBLdn increase in noise levels will be considered significant; and
c. Where existing noise levels are greater than 65 dBLdn at outdoor activity areas of noise-sensitive uses, a 1.5 dBLdn increase in noise levels will be considered significant.

Policy HS-G.8 The County shall evaluate the compatibility of Proposed Projects with existing and future noise levels through a comparison to Chart HS-1, "Land Use Compatibility for Community Noise Environments."

Policy HS-G.9 The County shall not allow the development of new residential land uses in areas exposed to existing or projected levels of noise from aircraft operations at any airport or air base which exceed 60 dBLdn or CNEL.

IMPACTS AND MITIGATION MEASURES

Method of Analysis

Traffic and Railroad Noise Sources

Increased traffic on the County's roadways and railroads is analyzed for the increase in noise that would be associated with the growth anticipated by the General Plan. Based on the cross-sectional views of distances to existing L_{dn} noise contours provided in the *Background Report*, existing L_{dn}s were estimated at the reference distance of 50 feet from the segments of roadways and the railroad mainlines shown in the *Background Report*. The analysis of future traffic noise levels is performed using the Federal Highway Administration's Highway Traffic Noise Prediction Model (FHWA-RD-77-108). Increases in the average daily traffic that would be associated with the development anticipated under the plan are applied to the existing noise levels to model L_{dn}s under baseline conditions and conditions considering implementation of the Proposed Project.

Airport Noise Sources

Airport noise contours for future conditions are available as part of each airport's Master Plan. The noise contour maps for many of the general aviation airports in Fresno County and the Lemoore Naval

Air Station were prepared in the early 1980s. The noise contour maps for the Fresno Air Terminal, the Sierra Sky Park Airport, and the Harris Ranch Airport were prepared in the middle 1990s. These maps and the available airport plans characterize airport noise exposures.

Fixed Noise Sources

To characterize noise levels due to existing and future noise sources, the fixed noise source descriptions contained in the *Background Report* are referenced. To assume the worst-case future conditions, future fixed noise sources anticipated under the General Plan were assumed to locate near noise-sensitive land uses.

All noise levels analyzed are ambient exterior noise levels for each of the modeled locations. Any increase in interior noise levels is assumed to be the same as the increase in exterior noise levels presented in this section. For example, if project-related traffic would cause a 3 dBA change to exterior noise levels, a 3 dBA change would also be experienced indoors.

Standards of Significance

Noise impacts resulting from implementation of the Proposed Project are assessed by the following criteria. The first criterion pertains to noise exposure guidelines defined in the *Background Report* and considers land use compatibility and compliance with existing noise regulations. The second criterion pertains to the increase in noise levels that would be caused as a result of development under the Proposed Project. Noise impacts would be considered significant if development under the General Plan would:

- result in a condition where land use compatibility criteria are not satisfied (General Plan Policy HS-G.3, Chart HS-1) or the County Noise Control Ordinance is violated (Fresno County Code Chapter 8.40);
- cause the L_{dn} at an existing sensitive receptor to increase as shown:
- where existing noise levels are less than 60 dB L_{dn} at outdoor activity areas of noise-sensitive uses, a 5 dB L_{dn} increase in noise levels will be considered significant;
- where existing noise levels are between 60 and 65 dB L_{dn} at outdoor activity areas of noise-sensitive uses, a 3 dB L_{dn} increase in noise levels will be considered significant; or
- where existing noise levels are greater than 65 dB L_{dn} at outdoor activity areas of noise-sensitive uses, a 1.5 dB L_{dn} increase in noise levels will be considered significant.

Impacts and Mitigation Measures

4.15-1 Development under the Draft General Plan would increase traffic on roadways and railroad activity which would result in exposure of sensitive receptors to unacceptable noise conditions.

Overall traffic volumes on the County's roadways, and, to a lesser extent, use of the railroads, are expected to increase due to growth in population and employment anticipated under the Draft General Plan. Along roadways that experience a two-fold increase in traffic, noise levels would be expected to increase by approximately 3 dBA. A greater traffic increase on any roadway would cause a greater noise increase, and this increase would be intensified by any increases in travel speed or truck traffic caused by development allowed under the Draft General Plan. During the life of the Draft General Plan, increased activity along the roadways and the railroads could expand the existing noise impacts and expose more residential neighborhoods and other noise-sensitive areas to unacceptable noise conditions. New transportation projects including new roadway improvement projects and/or new transit projects would require project-specific analysis of noise effects. Without measures to reduce this impact, increased traffic noise would be considered potentially significant.

Development of new sensitive receptors in areas affected by unacceptable noise conditions is discussed separately in Impact 4.15-4, below. For information purposes, existing and future traffic noise levels along the roadways identified in the *Background Report* are estimated in this analysis and summarized in Table 4.15-2. As shown in Table 4.15-3, by 2020 noise levels would increase by more than 1.5 dB in areas that are currently experiencing noise levels well over 65 dB Ldn, which would represent a significant impact.

TABLE 4.15-2

ESTIMATED EXISTING AND FUTURE TRAFFIC NOISE LEVELS (INCLUDING THE NO PROJECT ALTERNATIVE, YEAR 2020)

Roadway/Railroad	Baseline 1995 L_{dn} (dBA)	2020 without Project L_{dn} (dBA)	2020 with Proposed Project L_{dn} (dBA)
I-5: Panoche Road to Nees Avenue	84	86	86
SR 99: Adams to Clovis	85	88	88
SR 33: South of Manning	73	73	73
SR 41: North of Mt Whitney to Harlan	76	80	80
SR 145: South of SR 180	78	80	80
BNSF Railroad Mainline	79	79	79[(1)]
UP/SP Railroad Mainline	78	78	83[(1)]

Notes: L_{dn} estimated at 50 feet from centerline. Based on existing conditions in *Background Report* and anticipated traffic increases.

[(1)]Consolidation of the BNSF mainline traffic onto the Union Pacific mainline from Calwa to the San Joaquin River would be supported by proposed policy TR-E.1. The remainder of the Union Pacific mainline would not be affected and would remain approximately 78 dBA L_{dn}. No change is assumed for the remainder of the BNSF mainline.

SOURCE: EIP Associates, 1999.

TABLE 4.15-3

ESTIMATED DISTANCES TO NOISE CONTOURS (INCLUDING THE NO PROJECT ALTERNATIVE; YEAR 2020)

	Baseline 1995 (ft to L_{dn} contour)			2020 No Project (ft to L_{dn} contour)			2020 with Proposed Project (ft to L_{dn} contour)		
Roadway/Railroad	**70 dBA**	**65 dBA**	**60 dBA**	**70 dBA**	**65 dBA**	**60 dBA**	**70 dBA**	**65 dBA**	**60 dBA**
I-5: Panoche Road to Nees Ave.	340	720	1550	500	1060	2260	500	1060	2270
SR 99: Adams to Clovis	510	1200	2620	810	1840	1470	850	1920	4340
SR 33: South of Manning	70	170	400	80	190	430	80	200	460
SR 41: North of Mt Whitney to Harlan	120	260	590	190	430	950	210	460	1020
SR 145: South of SR 180	140	330	700	200	440	980	200	450	1000
BNSF Railroad Mainline[(1)]	170	410	870	170	410	870	170	410	870
UP/SP Railroad Mainline[(1)]	130	270	570	130	270	570	270	560	1190

Notes: Based on existing conditions in *Background Report* and anticipated traffic increases.

[(1)]Consolidation of the BNSF mainline traffic onto the Union Pacific mainline from Calwa to the San Joaquin River would be supported by proposed policy TR-E.1. The remainder of the Union Pacific mainline would not be affected and would remain approximately 78 dBA L_{dn}. No change is assumed for the remainder of the BNSF mainline.

SOURCE: EIP Associates, 1999.

Table 4.15-3 shows that while the decibel levels for 2020 with and without the project would be similar, the Proposed Project would increase noise levels enough to increase the distance from the study roadways to acceptable noise levels.

Although noise levels would be expected to increase along many of the County's roadways as a result of development anticipated by the Proposed Project, the majority of the impact would be expected to occur without the Proposed Project. In the cases identified in Table 4.15-2, traffic increases without the project would cause noise levels to increase to within 0.5 dBA of the levels anticipated with the Proposed Project. This means that implementation of the Proposed Project would contribute only a small fraction to the anticipated noise increases, and the project's contribution compared to the increase without the project would be negligible.

The draft policies of the General Plan would reduce this impact by providing guidelines for new roadway improvement projects. New roadway improvement projects would be required to achieve noise standards equivalent to those in the noise element (Policy HS-G.2), and increased noise caused by roadway improvement projects that is greater than 5 dBA L_{dn} would be deemed significant by thresholds included in the policies (Policy HS-G.7). Acoustical analyses would be required for projects with noise sensitive uses proposing to locate in areas where the standards of the noise ordinance are exceeded and for transportation-related projects likely to exceed the standards of the noise element at existing or planned sensitive uses (Policy HS-G.4). Other state and federal means of noise control

include noise limits for transportation sources in the California Vehicle Code and highway noise abatement criteria from the Federal Highway Administration and the California Department of Transportation. These requirements along with implementation of the above General Plan policies would reduce the impact of traffic noise sources to a level that would be less than significant for the County. Similar measures to reduce traffic noise levels are available to, and in many cases required by, city governments. However, the County cannot ensure that similar measures would be enforced for development (whether related to the Proposed Project or not) within cities under whose jurisdiction most of the future growth would occur. Therefore, the impact is considered ***significant.***

Mitigation Measures

4.15-1 *No mitigation is required beyond Draft General Plan Policies HS-G.2, HS-G.4, and HS-G.7 for Fresno County. No mitigation measures are available to the County to reduce impacts occurring within the cities' jurisdiction.*

Effective implementation of the policies cited above would reduce traffic- and rail-related noise generation impacts for development that occurs within the County's jurisdiction to a less-than-significant level. Similar measures are available to, and required by some of the cities in the county. However, the County cannot ensure that similar measures would be enforced for development (whether related to the Proposed Project or not) that occurs within other jurisdictions. For these reasons, the impact would remain significant and unavoidable.

4.15-2 Development under the Draft General Plan would result in increased airport activity, which would increase noise levels.

Noise exposures from operations at the County's airports are expected to increase due to growth in airport operations that may be caused by growth in population and employment anticipated under the Proposed Project, and as a result of the development of the airports in accordance with their Master Plans. For example, the Fresno Air Terminal, in the *Airport and Environs Plan* (FAT, 1992), reports that before the year 2010 the total annual operations at the airfield could increase from approximately 200,000 operations per year in 1996 to a maximum of 400,000 operations per year in 2010. During the life of the General Plan, which extends to 2020, increased activity at this airport and the other airports in the County could expand the airports' noise impacts to expose residential neighborhoods to unacceptable noise conditions. The potential for development of new sensitive receptors in areas affected by unacceptable airport noise is discussed separately in Impact 4.15-4, below.

Existing requirements for airports would reduce the noise impacts of increased airport activity. Title 21 of the California Code of Regulations establishes noise standards for airports and establishes responsibilities of the regional Airport Land Use Commissions, which prepare land use compatibility plans with thorough evaluations of airport noise. Additionally, the Federal Aviation Regulation Part

150 Airport Noise Compatibility Program is designed to reduce the effect of airport noise on the surrounding communities as airports expand. Such measures are required for airports within the incorporated cities. With these requirements in place, the impact of increased airport activity on noise levels would be ***less than significant***.

Mitigation Measures

4.15-2 *None required.*

4.15-3 Development under the Draft General Plan would result in increased fixed noise source activity or new fixed noise sources, which would result in exposure of sensitive receptors to unacceptable noise conditions.

The potential for noise exposure due to industrial and other fixed noise sources would be expected to increase due to expansion of existing operations of noise sources or addition of new noise sources near sensitive land uses during the life of the Draft General Plan. Noise impacts may occur due to construction activities, new industrial activities, or other fixed noise sources that occur near existing or future sensitive uses. Generally, without barriers, construction equipment can generate noise levels of up to 86 dB at 50 feet and 83 dB at 100 feet. Industrial and agricultural operations can also generate loud noises. The potential for existing or future sensitive uses, including residential areas, to be exposed to unacceptable noise levels from construction or other non-transportation noise is considered a ***significant impact***.

The Fresno County Noise Control Ordinance (Fresno County Code Chapter 8.40) specifies standards for sources of excessive noise affecting residences, schools, hospitals, churches, and libraries. Sources causing exterior noise levels in sensitive areas to exceed 50 dBA daytime L_{50} or 45 dBA nighttime L_{50} are prohibited by the ordinance, and non-emergency construction activities are limited to daytime hours. Noise from air conditioning and refrigeration equipment, waste and garbage collection equipment, and electrical substations are also specifically addressed by the ordinance. The noise ordinance would, therefore, reduce the impact of construction activities, new industrial activities, and other fixed noise sources on sensitive uses. The County health officer is responsible for enforcement of the ordinance.

The policies of the Draft General Plan would further reduce this impact by guiding development of new noise sensitive uses. The General Plan would specify that the County not allow development of new noise sensitive uses in areas where existing and projected non-transportation related noise levels exceed the thresholds of the noise ordinance (Policy HS-G.3). The General Plan would also specify that the County limit construction noise according to the noise ordinance (Policy HS-G.6). Enforcement of the noise ordinance and implementation of the Draft General Plan policies would reduce the impact of fixed noise sources to a level that would be less than significant for the County. Similar measures are available to, and in many cases required by, city governments. However, the County cannot ensure that similar measures would be enforced for development (whether related to the Proposed Project or not) within cities under whose jurisdiction most of the future growth would occur. Therefore, this impact is considered ***significant***.

Mitigation Measures

4.15-3 *No mitigation is required beyond Draft General Plan Policies HS-G.3 and HS-G.6 for Fresno County. No mitigation measures are available to the County to reduce impacts occurring within the cities' jurisdiction.*

Effective implementation of the policies cited above would reduce fixed noise source impacts for development that occurs within the County's jurisdiction to a less-than-significant level. Similar measures are available to, and required by some of the cities in the county. However, the County cannot ensure that similar measures would be enforced for development (whether related to the Proposed Project or not) that occurs within other jurisdictions. For these reasons, the impact would remain significant and unavoidable.

4.15-4 Development under the Draft General Plan could result in placement of new sensitive receptors in areas with existing or future unacceptable noise conditions.

Development anticipated under the Proposed Project would include adding new residential and other sensitive uses to the County, throughout the incorporated cities and to some extent in the unincorporated areas. A total of approximately 81,600 new single family dwelling units and 29,300 multiple family dwelling units would be added to the County during the 20-year timeframe life of the Draft General Plan. Existing noise levels along major roadways are shown in the *Background Report* to be above 70 dBA L_{dn}, and according to Land Use Compatibility Guidelines (*Background Report*, Chart 10-1), residential use in areas with L_{dn}s over 70 dBA would be considered "generally unacceptable." This is considered a ***significant impact***.

The general land use strategies of the Proposed Project encourage increasing the concentration of population and employment in the incorporated areas of the County (primarily in Fresno and Clovis). Because increased density in the urbanized areas would be encouraged by the Proposed Project, the County would be more likely to encourage future residential projects and other sensitive-use projects to locate in areas that could be exposed to frequent or substantial urban noise. In this manner, this impact would be intensified by the general land use strategies of the Proposed Project. The level of noise impact would depend on a variety of project-specific conditions including location of sensitive uses (e.g., the orientation and setback of sensitive uses) and shielding or insulation of sensitive uses from known noise sources.

Noise levels along heavily-traveled expressways and arterials within the unincorporated County are expected to grow during the life of the Draft General Plan, as discussed separately in Impact 4.15-1 above. Based on the noise contours shown in the *Background Report*, the distances to the future 70, 65, and 60 dBA L_{dn} noise contours are calculated and shown in Table 4.15-3. For example, on heavily-traveled portions of SR 99, the existing noise is above 70 dBA L_{dn} for uninsulated areas within 500 feet of the centerline. This would expand to more than 800 feet in 2020 with traffic anticipated under the Proposed Project.

Existing building code requirements specify that multiple family residential buildings are required to include noise insulation (Title 24 of the California Code of Regulations). The amount of insulation is based on worst-case exterior noise levels existing either at the time that the building permit is issued or any time in the future ten or more years. For multiple family dwellings (including new hotels, motels, dormitories, etc.), the building noise insulation requirements in Title 24 would provide substantial protection so that interior noise levels would be reduced to acceptable levels.

The Fresno County Noise Control Ordinance (Fresno County Code Chapter 8.40) specifies standards for sources of noise affecting residences, schools, hospitals, churches, and libraries. The ordinance provides protection to existing sensitive land uses from sources of excessive noise, but it does not discourage future sensitive uses from locating near existing noise sources.

The policies of the Draft General Plan would reduce the effect of urban noise levels on a project-by-project basis by guiding development of new noise sensitive uses. To identify Proposed Projects that would not be compatible with the noise environment, the County would evaluate new projects in the context of the Land Use Compatibility criteria (Chart 10-1 of the *Background Report*) (Policy HS-G.8). Furthermore, the Draft General Plan would specify that the County not allow development of new noise sensitive uses in areas where existing and projected non-transportation related noise levels exceed the thresholds of the noise ordinance (Policy HS-G.3). Acoustical analyses would be required for projects with noise sensitive uses proposing to locate in areas where the standards of the noise ordinance are exceeded and for transportation-related projects likely to exceed the standards at existing or planned sensitive uses (Policy HS-G.4). Development of new residential land uses would not be allowed in areas exposed to excessive noise from aircraft operations (Policy HS-G.9). Implementation of these policies would reduce impacts due to land use compatibility to a less-than-significant level for the County. Similar measures to protect new residential uses and other sensitive receptors from unacceptable noise levels are available to, and in many cases required by, city governments. However, the County cannot ensure that similar measures would be enforced for development (whether related to the Proposed Project or not) within cities under whose jurisdiction most of the future growth would occur. Therefore, the impact is considered ***significant.***

Mitigation Measures

4.15-4 *No mitigation is required beyond Draft General Plan Policies HS-G.3, HS-G.4, HS-G.8, and HS-G.9 for Fresno County. No mitigation measures are available to the County to reduce impacts occurring within the cities' jurisdiction.*

Effective implementation of the policies cited above would reduce this impact to a less-than-significant level for development that occurs within the County's jurisdiction. Similar measures are available to, and required by some of the cities in the county. However, the County cannot ensure that similar measures would be enforced for development (whether related to the Proposed Project or not) that occurs within other jurisdictions. For these reasons, the impact would remain significant and unavoidable.

Cumulative Impacts

The cumulative context for traffic noise is provided by the FCMA traffic model (see Section 4.4, Transportation and Circulation), which accounts for traffic due to development throughout the County and surrounding Fresno County and surrounding areas, through the year 2020. Therefore, Impact 4.15-1 evaluates the project-specific and cumulative impact related to traffic noise. Other noise sources are more localized and would not combine with cumulative development outside of the County.

4.15-5 The Draft General Plan, in combination with other cumulative development, would result in increases in mobile and fixed noise source levels, resulting in permanent increases in ambient noise levels that could affect sensitive receptors.

The Proposed Project by itself (i.e., the growth attributable directly to the Draft General Plan policies plus the increment attributable to the Economic Development Strategy) represents a relatively small portion of the growth projected to occur in the county by 2020, because the population growth would be unchanged by the Project. The project will have a more noticeable difference in future conditions related to growth that would occur in the employment sector, the mix of employment, and the patterns of development that would occur in the unincorporated area. Since workplaces are typically the areas of a community generating noise, this growth will create additional noise sources. Intensification of land use may result in additional sensitive receptors being located within the noise contours outlined above either because the contours expand over time to include the sensitive receptors or because of shifts in land use patterns and intensification that increase the number of sensitive receptors within the contours.

The project would contribute considerably to these impacts by increasing mobile and fixed source noise throughout the County. In addition to noise impacts within Fresno County, growth activities attributable to the Project will also contribute to noise impacts in areas adjacent to the County with decreasing intensity as mobile source noise activities increase over time. These impacts are considered ***significant***.

Mitigation Measures

4.15-5 *No mitigation is available beyond Draft General Plan Policies HS-G.1 through HS-G.9.*

Implementation of the Draft General Policies listed above would reduce the project's contribution to this significant cumulative impact, but not to less-than-significant levels, and such measures would not reduce the cumulative effect to less-than-significant levels. Therefore, the cumulative impact would remain significant and unavoidable.