

**4.12 NOISE**

This section addresses noise issues relative to construction and operation of Segment 1 of the proposed Antelope Transmission Project.

Noise levels and standards are expressed on a logarithmic scale in units called decibels, using a frequency-weighting pattern that duplicates the sensitivity of the human ear and abbreviated dBA. Since noise levels from various sources vary over time, they are frequently expressed as an equivalent noise level (Leq), which is a computed steady noise level that represents the same energy transmission over a specified time. Leq values are commonly expressed for one-hour periods, but different averaging times may be specified.

For the evaluation of environmental or community noise effects, it is customary to define a 24-hour-long noise level based on hourly Leq values, and to apply an excess or “penalty” noise during the evening and/or nighttime hours to account for the added nuisance of noise during those periods. Depending on the exact penalty scheme, the resulting noise descriptor is either a Community Noise Equivalent Level (CNEL) or a Day-Night Average Noise Level (Ldn). The two ways of expressing such noise levels are nearly equivalent, and are often used interchangeably.

For local governments, noise standards are specified within the mandated Noise Element of their General Plan, which usually defines maximum noise levels that are considered compatible with various land uses. Frequently, local governments also have a specific Noise Ordinance designed to regulate specific noise-producing activities such as construction work.

**4.12.1 City of Lancaster**

The Antelope Substation and areas of the proposed Segment 1 T/L route (including Alternative 1) are located within the western limit of the City of Lancaster. This area is generally rural or low density in nature, and existing noise levels are generally low.

In the City of Lancaster, noise standards are set forth in the Noise chapter of the Plan for Public Health and Safety, one of the elements of the Lancaster General Plan (City of Lancaster, 1997c). These standards are presented in Table 4.12-1.

The City of Lancaster Noise Ordinance is set forth in Chapter 8.24 of the municipal code. The code includes a general prohibition against loud, unnecessary, and unusual noises (Section 8.24.030), and a prohibition against performing specified construction and building work between the hours of 8:00 p.m. and sunrise, and on Sundays. No grading with heavy

**TABLE 4.12-1  
CITY OF LANCASTER NOISE ELEMENT STANDARDS**

<b>Land Use</b>	<b>Maximum Exterior CNEL</b>	<b>Maximum Interior CNEL</b>
Rural, Single Family, Multiple Family Residential	65 dBA	45 dBA
Schools:		
Classrooms	65 dBA	45 dBA
Playgrounds	70 dBA	
Libraries		50 dBA
Hospitals/Convalescent Facilities:		
Living Areas		50 dBA
Sleeping Areas		40 dBA
Commercial and Industrial Office Areas	70 dBA	50 dBA

equipment or construction with loud mechanical equipment is allowed within 500 feet of an occupied dwelling during the specified times.

#### **4.12.2 Los Angeles County Unincorporated Areas**

The unincorporated areas and communities through which the proposed Segment 1 T/Ls would pass are predominantly vacant land or rural in nature. Existing noise levels are generally low, and due to distant roadway traffic and aircraft.

The existing (1979g) Noise Element of the Los Angeles County General Plan provides background information regarding noise and general policy guidance, but does not contain any numerical standards for the compatibility between land uses and noise levels. Policy 2 of the Noise Element does state that the County should: “Establish acceptable noise standards consistent with health and quality of life goals and employ effective techniques of noise abatement through such means as building code, noise, subdivision and zoning ordinances”.

The County is in the process of updating its General Plan. The Noise Element of the draft General Plan Goals and Policies provides somewhat more specific guidance. Draft Policy N-1.2 states: “Avoid development of residential and other noise-sensitive uses in areas of the County where outdoor ambient noise levels exceed 55 CNEL unless interior noise levels from exterior sources can be mitigated to less than 45 CNEL”.

The Los Angeles County Noise Ordinance is reflected in Chapter 12.08 of the County Code. The County Noise Ordinance has a somewhat complex system of allowable noise limits, which is summarized in the following paragraphs.

Activities may not generate noise levels above specified limits, both at the exterior and interior areas of neighboring land uses. The limits are derived from tabulated values that depend on the sensitivity of the land use, with adjustments to create a series of noise Standards. The basic exterior limits are presented in Table 4.12-2.

**TABLE 4.12-2  
LOS ANGELES COUNTY NOISE ORDINANCE STANDARDS (SECTION 12.08.390)**

Noise Zone	Designated Noise Zone Land Use (Receptor property)	Time Interval	Exterior Noise Level (dB)
I	Noise sensitive area	Anytime	45
II	Residential properties	10:00 pm to 7:00 am (nighttime)	45
		7:00 am to 10:00 pm (daytime)	50
III	Commercial properties	10:00 pm to 7:00 am (nighttime)	55
		7:00 am to 10:00 pm (daytime)	60
IV	Industrial properties	Anytime	70

Adjustments are made to the above allowable limits depending on the nature of the ambient noise, or the duration of the noise. The ambient noise is specified as a statistical noise level, or  $L_x$ , where  $x$  is the percentage of time that the noise levels exceed the limit  $L$ . For example, an  $L_{80}$  is the noise level in dBA that is exceeded 80 percent of the time. The adjusted standards, derived from the above limits, are as follows:

Standard 1. The above exterior limits, for any generated noises that occur for a cumulative period of more than 30 minutes in any hour. If the ambient  $L_{50}$  exceeds this limit, then the  $L_{50}$  becomes the exterior noise level limit for Standard 1.

Standard 2. The above exterior limits, plus 5 dBA, which may not be exceeded for a cumulative period of more than 15 minutes in any one hour. If the ambient  $L_{25}$  exceeds this limit, then the  $L_{25}$  becomes the exterior noise level limit for Standard 2.

Standard 3. The above exterior limits, plus 20 dBA [sic, probably 10 dBA], which may not be exceeded for a cumulative period of more than 5 minutes in any one hour. If the ambient  $L_{8.3}$  exceeds this limit, then the  $L_{25}$  becomes the exterior noise level limit for Standard 3.

Standard 4. The above exterior limits, plus 15 dBA, which may not be exceeded for a cumulative period of more than 1 minute in any one hour. If the ambient  $L_{1.7}$  exceeds this limit, then the  $L_{25}$  becomes the exterior noise level limit for Standard 4.

Standard 5. The above exterior limits, plus 20 dBA, which may not be exceeded for any period of time. If the ambient L0 exceeds this limit, then the L0 becomes the exterior noise level limit for Standard 5.

There are additional specifications in the Noise Ordinance that relate to limits for noise levels between two different land use zones, limits for interior noise levels, and corrections for pure tone or impulsive sounding noises (limits are 5 dBA more restrictive).

In addition to these measures, the Noise Control Ordinance of Los Angeles County also prohibits construction activities and noise during certain times, in areas that would affect a residential or commercial property line. The prohibited times are between the weekday hours of 7:00 p.m. and 7:00 a.m., and any time on Sundays or holidays (Section 12.08.440).

#### **4.12.3 Angeles National Forest**

Noise levels within the National Forest Lands are very quiet over very large areas, and noisy in localized areas during periods of ORV use, shooting, or other activities. Although the existing forest management plan does not explicitly identify noise as an issue and does not suggest any specific noise standards, it does recognize the need to minimize conflicts between different types of recreational activities. In a similar manner, the noise and disturbance associated with construction activities allowed by a special use permit could represent a conflict with passive recreational activities or wildlife habitat values. The general direction provided in the Land and Resources Management Plan is to coordinate and balance all of the uses within the forest to maximize the output or benefit to all. Noise would be a consideration in this type of integrated planning.

#### **4.12.4 Santa Clarita Valley**

The northern portions of the City of Santa Clarita, through which the Segment 1 T/Ls would pass, consists of developed and developing suburban residential neighborhoods. While noise levels are higher than those in the rural unincorporated areas, they are still generally low. Traffic on distant major roads and local streets is the major source of noise.

The City of Santa Clarita and the County of Los Angeles are jointly preparing a General Plan update (City of Santa Clarita and County of Los Angeles, 2004) that will govern the City and adjacent areas. An excerpt of the draft Land Use Compatibility Standards related to noise from the plan is presented in Table 4.12-3.

There are other limits and other land use categories specified in the draft Community Health and Safety Chapter, but the categories summarized above are those most likely to be located in areas crossed by or adjacent to the proposed T/L route.

**TABLE 4.12-3  
PARTIAL SUMMARY OF THE SANTA CLARITA  
DRAFT LAND USE COMPATIBILITY STANDARDS**

<b>Land Use Category</b>	<b>Normally Acceptable CNEL or Ldn (dBA)</b>	<b>Conditionally Acceptable CNEL or Ldn (dBA)</b>
Residential – Low density, single family, duplex, mobile homes	50-60	55-70
Residential – multi-family	50-65	60-70
Schools, libraries, churches, hospitals, nursing homes	50-70	60-70
Playgrounds, neighborhood parks	50-70	67.5-75

Specific limits for noise levels caused by activities within the City are set forth in the City's Noise Ordinance, which is in Chapter 1.44 of the Municipal Code. The applicable limits, with defined adjustments, are presented in Table 4.12-4 and the clarifying text that accompanies the tabular data.

**TABLE 4.12-4  
CITY OF SANTA CLARITA NOISE ORDINANCE  
ALLOWABLE NOISE LIMITS (SECTION 11.44.040)**

<b>Region</b>	<b>Time</b>	<b>Sound Level dBA</b>
Residential zone	Day	65
Residential zone	Night	55
Commercial and manufacturing	Day	80
Commercial and manufacturing	Night	70

Activities are not allowed to cause noise levels in the receiving zone in excess of these limits, except as provided elsewhere in the code section. The limits shown above are adjusted upwards or downwards, depending on the nature and duration of the noise-making activities in accordance with the conditions shown in Table 4.12-5.

In addition to these limits, the City of Santa Clarita Noise Ordinance also specifically regulates construction activities. Section 11.44.080 of the Municipal Code is as follows:

*No person shall engage in any construction work, which requires a building permit from the City on sites within three hundred (300) feet of a residentially zoned*

*property except between the hours of seven a.m. to seven p.m. Monday through Friday and eight a.m. to six p.m. on Saturday. Further, no work shall be performed on the following public holidays: New Year's Day, Independence Day, Thanksgiving, Christmas, Memorial Day, and Labor Day.*

**TABLE 4.12-5  
NOISE LIMIT ADJUSTMENTS**

<b>Noise Condition</b>	<b>Correction (in dB)</b>
(1) Repetitive impulsive noise	-5
(2) Steady whine, screech or hum	-5
<b>The following corrections apply to daytime only:</b>	
(3) Noise occurring more than 5 but less than 15 minutes per hour	+5
(4) Noise occurring more than 1 but less than 5 minutes per hour	+10
(5) Noise occurring less than 1 minute per hour	+20