

5.12 NOISE

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

5.12.1 Significance Criteria

The potential for a project to result in significant noise impacts is determined primarily by CEQA criteria and local criteria, as applicable. In accordance with Appendix G of the CEQA Guidelines, potentially significant noise impacts would occur if the project would result in:

- Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public-use airport, the project would expose people residing or working in the project area to excessive noise levels
- For a project within the vicinity of a private airstrip, the project would expose people residing or working in the project area to excessive noise levels

5.12.2 Summary of Project-Related Construction Noise

Construction of the proposed project would involve the use of heavy equipment to transport material and accomplish removal or construction of T/L poles or towers. Grading would be involved in creating pads for the expansion at the Antelope Substation, for marshalling yards, staging areas, cable pull areas, and in improving access along roads and trails that have not been maintained. Heavy construction equipment typically generates noise levels up to around 95 dBA at 50 feet. To a large extent, these types of noises are common and associated with any development and building activities.

These discussions of construction noise effects apply equally to the proposed T/L route, the Alternative 1 alignment, and activities at the Antelope and Pardee substations. The following

discussions also apply to Alternative 2 (i.e., use of single circuit towers between Haskell Canyon and Pardee).

The project would also involve the use of helicopters to move material in and out from some remote locations within the Angeles National Forest. While only a minor component of the overall project, the helicopter operation would result in localized noisy conditions for short-term periods. Noise levels from large helicopters, such as the Sikorsky S-64 Skycrane, can range from 95-105 dB at distances of about 300 feet.

At any one location along the project route, such helicopter operations would occur for short periods several times per day. Since none of the forest areas traversed by the proposed T/L route (or by the Alternative 1 route) are designated as primitive or wilderness areas, the potential conflict with recreational users is lessened.

The noise levels associated with heavy construction and helicopter operations would also have the potential to temporarily affect wildlife behavior. Birds and mammals are likely to be flushed or disturbed by the operations. The effects would be short-term and transient in nature.

5.12.3 Summary of Jurisdictional Construction Noise Restrictions

5.12.3.1 City of Lancaster

Any construction within 500 feet of any occupied dwelling is prohibited on Sundays and between the hours of 8:00 p.m. and sunrise on all other days of the week. In the event that construction needs to occur outside of the specified hours, a variance would need to be obtained.

5.12.3.2 Angeles National Forest

All construction activities would require a special-use permit for work within the boundaries of the Angeles National Forest. As part of the application review and approval for such permits, the Forest Service may specify construction activity restrictions. Depending on the season, there may be additional requirements related to wildlife. The details of these measures, if necessary, would be developed by biologists and resource specialists with the Forest Service on a case-by-case basis.

5.12.3.3 Los Angeles County Unincorporated Areas

Any construction that would create a noise disturbance across a residential or commercial property line is prohibited between 7:00 p.m. and 7:00 a.m. on weekdays and Saturdays, and all day on Sundays and holidays. In the event that construction needs to occur outside of the specified hours, a variance would need to be obtained.

5.12.3.4 Santa Clarita

Any construction within 300 feet of a residentially zoned property is prohibited between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, between 7:00 p.m. (Friday night) and 8:00 a.m. (Saturday morning), and between 6:00 p.m. (Saturday night) and 7:00 a.m. (Monday morning). In addition, construction work is also prohibited on specified holidays, including: New Year's Day, Independence Day, Thanksgiving, Christmas, Memorial Day, and Labor day. In the event that construction needs to occur outside of the specified hours, a variance would need to be obtained.

5.12.4 Construction Impacts

The following discussions of potential project-related construction noise effects apply equally to the proposed and Alternative 1 500 kV T/L routes and the proposed substation modification and expansion areas. The potential for, or degree of, noise impacts is related to the proximity of sensitive land uses. These would include residences, schools, hospitals, parks, and similar areas where peace and quiet are generally expected.

Each portion of the project will involve the use of heavy equipment to transport material to the project sites. Grading would be involved in T/L and substation construction activities. Cranes and other heavy equipment would be used in the erection of towers and for installing conductors. Heavy construction equipment typically generates noise levels up to around 95 dBA at 50 feet.

One of the areas with the potential for noise impacts exists in the western portion of the City of Lancaster, where work on the Antelope Substation expansion would occur. This area is relatively undeveloped now, but is experiencing residential growth. One residence is located on W. Avenue J in western Lancaster, approximately 800 feet to the northwest of the Antelope Substation.

Near the southern end of Segment 1 of the proposed Antelope Transmission Project, project construction-related noise would be expected to result in temporary noise impacts on the residential developments in the Santa Clarita area between Haskell Canyon and the Pardee

Substation. If Alternative 1 was selected, short term noise impacts would also be expected for the residents of the community of Green Valley.

Noise from a point source, such as grading or construction equipment, is reduced according to the inverse square law as it propagates outward from its source. As a general rule, noise levels from point sources are reduced by 6 dBA for each doubling of distance.

Using a construction equipment reference noise level of 95 dBA at 50 feet, the resulting noise level at a distance of 1,000 feet would be about 69 dBA. Heavy construction equipment typically does not operate continuously in one position all day long. The effect on the hourly equivalent noise level would depend on the duration and frequency of operation. The potential for some construction noise-related disruption of nearby receptors, including residences, as applicable, could occur.

At any one location along the proposed T/L routes (including alternatives), helicopter operations would be expected to occur for short periods several times per day. Since helicopters would only be used in relatively remote, undeveloped areas, the potential for disturbance to large numbers of residences is small. If necessary, these operations would be limited to daytime working hours only, and would be fairly short-term in nature. Therefore, short-term construction noise impacts from helicopter operations would be less than significant.

Construction noise impacts are usually sporadic and occur during daytime hours. For this reason, they rarely have a significant influence on 24-hour noise descriptors such as CNEL and Ldn. Thus, measured by the standards used in most Noise Elements, construction noise would not be considered a significant impact. Because of its potential to cause a nuisance or disturbance, construction noise is usually considered a potentially significant impact, but one that is short-term in nature and that can be easily mitigated by limiting the hours of construction.

5.12.5 Operation Impacts

Once the proposed T/L towers are erected and the conductors installed, the 500 kV T/L associated with Segment 1 of the Antelope Transmission Project would generate very little noise. The proposed modifications at the existing Antelope and Pardee substations would not be expected to result in any long-term, operational phase noise effects on sensitive receptors. Once the Antelope Substation was upgraded to 500 kV, operational noise levels would be expected to increase slightly in the immediate vicinity of the substation. Noise that is generated comes from two sources: electrical and related equipment at the substations, and corona discharge and similar phenomena associated with the 500 kV T/Ls.

Noise from transformers and similar equipment at substations is usually a low frequency (60 Hz) humming sound. Noise from fans or ventilation equipment on buildings may be added to this sound. These types of noises commonly range around 50-60 dBA at distances of 100 feet or so. In most circumstances, the resulting exterior noise levels are well below the common noise standard of 65 dBA. Potentially significant noise impacts from substations are usually limited to residences located immediately adjacent to them. Noise impacts associated with modifications of the Antelope and Pardee substations would be expected to be less than significant.

The noise from corona discharge and similar electrical phenomena associated with high voltage transmission lines is heard as a crackling or hissing sound, which commonly varies with the humidity. While distinctive, this noise is typically only about 40 - 50 dBA, or less, near the edge of T/L R-O-Ws, and is not loud enough to exceed any noise compatibility standards. For this reason, the noise from such electrical discharge would be considered less than significant.

5.12.6 Mitigation Measures

Applicant-proposed mitigation measures and anticipated construction permit-related conditions to reduce the adverse effects of noise are summarized in the following paragraphs, organized by government jurisdiction.

5.12.6.1 City of Lancaster

APM Noise-1. Consistent with Section 8.24 of the City of Lancaster Municipal Code, within 500 feet of any occupied dwelling no construction will occur on Sundays, and no construction will occur between the hours of 8:00 p.m. and sunrise on all other days of the week. In the event that construction needed to occur outside the specified hours, a variance would need to be obtained.

5.12.6.2 Los Angeles County Unincorporated Areas

APM Noise-2. Consistent with County Code (Section 12.08.440), no construction activities will occur in a residential area between 7:00 p.m. and 7:00 a.m. on weekdays and Saturdays, or at any time on Sundays and holidays. In the event that construction needed to occur outside the specified hours, a variance would need to be obtained.