

4.6 NOISE

4.6.1 Proposed Project

4.6.1.1 Affected Environment

Sound is mechanical energy transmitted by pressure waves in a compressible medium, such as air. Noise is generally defined as unwanted sound. Sound is characterized by various parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of propagation, and the pressure level or energy content of a given sound wave. Sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level.

The unit of sound pressure when taken as a ratio to the faintest sound detectable by a keen human ear is called a decibel (dB). Because sound or noise can vary in intensity by over one million times within the range of human hearing, a logarithmic loudness scale, similar to the Richter Scale used for earthquake intensity, is used to keep sound intensity numbers at a convenient and manageable level. Because the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity are factored more heavily into sound descriptions in a process called “A-weighting,” written as dB(A).

In San Bernardino County, the “compatible” noise level is defined as up to 60 dB(A) Community Noise Level Equivalent¹ (CNEL) in the San Bernardino County Municipal Code, Section 83.01.080 – Noise. This section establishes standards concerning acceptable noise levels for both noise-sensitive land uses and for noise-generating land uses. Noise from mobile sources may affect adjacent properties adversely. When it does, the noise shall be mitigated for any new development to a level that shall not exceed an exterior exposure of 60 dB CNEL, which allows a desirable interior level of 45 dB CNEL to be attained with no other noise control measure other than closing windows and doors for residential, single- and multi-family, duplex, and mobile homes.

The San Bernardino County Municipal Code Section 83.01.080(g)(3) exempts sources of noise from the regulations for temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m., except for Sundays and federal holidays.

The Proposed Project route is located in a mostly uninhabited, rural area within the County of San Bernardino. There are no sensitive receptors located along most of the Proposed Project route. Residential development is only present along small portions of Segment 3. A single-family residential development consisting of approximately 20 homes is located along the Proposed Project alignment at the north end of Segment 3 for approximately 800 feet from the intersection of State Route 247 to Boulder Road. Additionally, the Proposed Project travels through the unincorporated town of Bell Mountain for approximately 3 miles. There are approximately 50 large rural homes in Bell Mountain located within 0.5 mile of the fiber optic cable line. Of the 50 homes, approximately 12 are located within 100 feet of the Proposed Project.

There is one private airport—Osborne Private Airport—located approximately 400 feet north of the southern portion of Segment 3. Limited aircraft noise is present in the area. The existing fiber optic cable route is located primarily within existing roadways, which are subject to limited traffic-generated noise and vibration.

¹ CNEL measurements are weighted averages of sound levels gathered over a 24-hour period, essentially measuring ambient noise. Measurements taken during day, evening, and nighttime periods are weighted separately, recognizing that humans are most sensitive to noise in late night hours and are more sensitive during evening hours than in daytime hours.

4.6.1.2 Significance Criteria

Pursuant to the California Environmental Quality Act (CEQA), impacts from noise would be considered significant if the Proposed Project:

- results 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;
- results in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- results in substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- results in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- lies 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, and, as a result, expose people residing or working in the project area to excessive noise levels; and/or
- lies in the vicinity of a private airstrip, and, as a result, expose people residing or working in the project area to excessive noise levels.

Pursuant to the National Environmental Policy Act (NEPA), consideration of significant impacts on the human environment is conducted in accordance with Title 40 Code of Federal Regulations 1508.27 (specified in Section 1.2.1 Relationship to NEPA Guidelines). Following the public comment period, a finding regarding a significant impact will be prepared in accordance with this provision.

4.6.1.3 Impacts and Mitigation

The Proposed Project's noise generation would be limited to the construction period. Typical noise levels associated with construction equipment that are anticipated during construction of the Proposed Project are shown in Section 2.1.4. The typical noise levels provided in Table 2-4: Typical Construction Equipment, are reference noise levels taken at a distance of 50 feet from the noise source. The predicted noise level at the noise sensitive receptors during conduit installation, the construction phase with the most noise-intensive equipment in use, would be approximately 77.05 dB(A) hourly average noise data (L_{eq}). The duration of construction adjacent to an existing residence is estimated at 2 to 3 hours for the installation of the conduit. This noise level is below any applicable ordinances or regulations.

The construction equipment that would be used to install the conduit and cable would transmit groundborne vibration to the surrounding area, but as described previously, the duration of construction in the vicinity of sensitive receptors would be short. The Proposed Project would not emit any discernable noise associated with its operation; therefore, there would be no permanent increases to ambient noise.

The southernmost portion of Segment 3 would be located adjacent to the Osborne Private Airport. Although construction of the Proposed Project in this area would generate increased noise, the levels would occur for a very short time period (1–2 weeks) and would be in compliance with applicable noise codes and ordinances. Additionally, because the airport is not located near residential development, exposure from elevated noise levels would not result. As a result, impacts would be less than significant. The Proposed Project proponent would utilize standard construction equipment that complies with established noise standards and San Bernardino County Municipal Code Section 83.01.080(g)(3) timing requirements. Because the construction activities would be in compliance with the applicable San Bernardino County noise ordinances, impacts associated with construction noise would be less than significant.

4.6.2 No Action Alternative

Selection of the No Action Alternative, as described in Section 2.5.1 No Action Alternative would not result in construction of the Proposed Project and potential effects associated with noise as described in Section 4.6.1.3 Impacts and Mitigation would not occur.