4.12 Noise

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) 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?	❒	❒	X	❒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	❒	❒	X	❒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	❒	❒	X	❒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	❒	❒	X	❒
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	❒	❒	❒	X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	❒	❒	❒	X

4.12.1 Methodology

Analysis of potential noise impacts was based on Project specifications, the use of existing acoustical literature, and a review of local adopted noise standards and guidelines that directly regulate noise generated by electrical substation facilities and electrical transmission lines.

4.12.2 Environmental Setting

Noise is generally defined as unwanted sound. Sound is any pressure variation in the air that can be detected by the human ear. Pressure variations occurring at a minimum frequency of at least 20 times per second are audible to the human ear, and are heard as sound. Noise impacts imposed on the human environment can range from inconvenient levels that induce undue stress and annoyance (i.e., interference with activities such as sleep and speech) to more severe levels that result in adverse health effects (i.e., loss of hearing and psychological damage).

The decibel (dB) is the basic unit of measurement for sound. Direct measurement of sound in terms of pressure would involve a large assortment of awkward numbers. Thus, a logarithmic scale known as the decibel system was developed to provide a more simplified relationship between the intensity of sound and its perceived loudness to the human ear. Under the decibel system, 20 micropascals is equal to 0 dB, and sound increases or decreases exponentially with each decibel of change (i.e., a 10 dB level would be ten times more intense than 1 dB, and a 20 dB level would be one hundred times more intense). Three noise rating scales (denoted as “A,” “B,” “C”), which are classified based on sound level frequencies,

indicate human sensitivity to audible sound. In general, noise levels that are considered acceptable or unacceptable are associated with various environments. For example, lower noise thresholds are typically established for rural or suburban areas, whereas higher thresholds are set for industrial and commercial zones. Ambient noise levels occurring in urban areas during the night are typically seven decibels lower than the corresponding average noise levels that occur during the daytime. Rural areas located far from roads and other human activity experience considerable less day-to-night difference in ambient noise levels. Noise levels that exceed 45 dBA at night could deprive local residents of sleep or interfere with their normal patterns of sleep (USEPA 1974).

The proposed Project area is located in primarily a rural setting containing residences, a mobile home park, a hotel, senior apartment community, undeveloped land, I-5, a power substation, and commercial buildings. Table 4.12-1 provides a list of noise measurement and acoustical terminology that is utilized throughout this section. Table 4.12-2 provides the ranges of common sounds that people are likely to experience within the Project area.

TABLE 4.12-1 NOISE MEASUREMENT AND ACOUSTICAL TERMINOLOGY

TERM	DEFINITION
Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term *ambient* is used to describe an existing or pre-project condition, such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound. A *Bell* is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours (10 p.m. – 7:00 a.m.) weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
L_{dn}	The equivalent sound level over a 24-hour period with 10 dBA penalty applied to the equivalent sound level during the nighttime hours of 10:00 p.m. to 7:00 a.m.
L_{eq}	The energy averaged A-weighted sound level over a specific measurement period.
L_{max}	The maximum sound level measured during an ambient noise test as determined from the statistical database.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.

Source: City of Mt. Shasta 2008.

TABLE 4.12-2 TYPICAL RANGES OF COMMON SOUNDS

SOURCES OF NOISE	NOISE LEVEL RANGES (DBA)
Threshold of Pain	130 – 140
Pneumatic Chipper	120 – 130
Motorcycle	80 – 110
Emergency Diesel Power Generator	55 – 75
Power lawnmower	80 – 95
Automobile (at 50 Feet)	60 – 90
Conversational Speech	60 – 70
Refrigerator	45 – 70
Living Room (Suburban Area)	40 – 50
Bedroom at Night	20 – 30
Threshold of Hearing	0 – 10

Source: USEPA 1974.

Human perception of loudness is predictable and can be estimated by weighting the frequency response of a sound level meter using the standardized "A-weighting" network. A strong correlation exists between A-weighted sound levels (expressed as dBA) and community responses to the annoying aspects of noise. Consequently, the A-weighted sound level has become the most common tool that is used for environmental noise assessment. Noise resulting from human activities, and the consequences of such noise, are generally represented by an A-weighted sound level monitored over a given time period (L_{eq}) or by the average day-night noise levels (L_{dn}).

Effects of Noise on People

The effects of noise on people can be placed into three categories:

- subjective effects of annoyance, nuisance, dissatisfaction;
- interference with activities such as speech, sleep, learning; and
- physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers at industrial plants often experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation exists in the individual thresholds of annoyance, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way then new noise compares to the existing noise "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference when the change in noise is perceived but does not cause a human response;

- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. A ruler is a *linear* scale: it has marks on it corresponding to equal quantities of distance. One way of expressing this is to say that the ratio of successive intervals is equal to one. A *logarithmic* scale is different in that the ratio of successive intervals is not equal to one. Each interval on a logarithmic scale is some common factor larger than the previous interval. A typical ratio is 10, so that the marks on the scale read: 1, 10, 100, 1,000, 10,000, etc., doubling the variable plotted on the x-axis. The human ear perceives sound in a non-linear fashion; hence the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Radio Noise

Radio Interference (RI) occurs in the 535 to 1605 kHz frequency range, while Television Interference (TVI) occurs in the 54 to 88 MHz range. Collectively, RI and TVI are known as Radio Noise (RN). RN is measured in units of dB per microvolt per meter (dbμV/m), and can result from both corona and gap discharges during foul weather conditions. Two potential sources of interference from the operation of a transmission line are corona and gap discharges. Corona discharge can arise when air surrounding a transmission line becomes ionized by the electrical field reaching a sufficiently high value at a particular point. Corona noise is typically associated with transmission lines operating at transmission line voltages above 200 kV and most significant in foul (typically rain) weather, when water droplets are often located on, or trickling off of, the conducting wires. Cable and satellite systems are not prone to corona. Gap discharges or “sparking” can result between pieces of the transmission line equipment, such as hardware, insulators, clamps, and brackets that are poorly fitted together. Gap discharges occur mostly during dry weather because dampness on the line tends to minimize resistance in the connection, allowing current to flow freely. Gap discharges are the primary cause of TVI, and tend to interfere with broadcasts in the UHF range (above 300 megahertz [MHz]).

Existing Noise Sources

The proposed Project encompasses land uses consisting of rural, open space, residential, commercial, and other uses. The proposed Lassen Substation facility and transmission line are located in unincorporated Siskiyou County. The City of Mt. Shasta is located east of the proposed Lassen Substation site. The majority of the transmission line is located to the west of the City of Mt. Shasta; however, approximately 1,200 feet of the transmission line upgrade is located within the City of Mt. Shasta. The area in the vicinity of the distribution line upgrades consist of residences, a senior apartment community, undeveloped land, I-5, medical facilities, and commercial buildings.

The primary contributor to the noise environment in the greater Project area is vehicle traffic along I-5 and other local roadways, as well as fixed noise sources.

<u>Interstate 5</u>

I-5 is located approximately 0.2 mile from the proposed Project, in an area populated by rural residences. City of Mt. Shasta General Plan Noise Element (Table 7-1) indicates the noise levels for traffic within the City’s planning area, and is based on data from the California Department of Transportation (Caltrans) utilizing the Federal Highway Administration Traffic Noise Model. As indicated by Table 7-1, the

measured L_{dn} noise level in 2006 ranged from 65 dBA at a distance of 464 feet from the I-5 to 60 dBA at a distance of 999 feet from I-5. The distribution lines cross I-5 in three locations: (1) approximately 170 feet south of Lassen Lane; (2) at Jessie Street; and (3) approximately 355 feet south of W. Lake Street.

Sensitive Receptors

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Noise-sensitive receptors include schools, residences, senior housing, hospitals, and businesses. Sources that generate excessive noise may result in the loss of local business or annoy residents living in the area.

Most of the residences in the Project area are located in the City of Mt. Shasta; however, residences are scattered throughout the Project area. The nearest existing noise-sensitive receptors potentially impacted by the construction and operation of the proposed Project are the occupied residences near the substation and the transmission line.

Residential dwellings potentially impacted by installation of new poles and replacement of existing poles along the transmission line are located at various distances from the pole locations. There are three residences near the existing and proposed substation sites. These residences range in distance from the transmission pole locations between approximately 50 feet and 400 feet. Sensitive noise receptors near the distribution line upgrade consist of residential uses including a senior community.

Land uses in the vicinity of the proposed Substation consist of pastureland and open-space uses to the north, with rural residences to the south. Land uses in the vicinity of the transmission line (Line 2) consist primarily of rural residential uses, open space, and agricultural land. There are seven residential uses located within 50 feet of the transmission ROW, the proposed Lassen Substation, and the existing Mt. Shasta Substation.

Land uses in vicinity of the distribution lines consist of rural/open space, residences, commercial uses, I-5, and medical facilities. There are numerous residential uses located along the distribution line upgrades. However, work in these area would occur within the City's noise standards and would only occur for a short duration. Approximately 1,200 feet of underground cable would be installed to increase capacity of an existing underground line. This work would occur adjacent to an existing senior community facility.

Regulatory Framework

Federal

The USEPA, Office of Noise Abatement and Control, was originally established to coordinate federal noise control activities. After inception, the USEPA's Office of Noise Abatement and Control issued the federal Noise Control Act of 1972, which established programs and guidelines to identify and address the effects of noise on public health and welfare and the environment. Administrators of the USEPA determined in 1981 that subjective issues such as noise would be better addressed at lower levels of government. Consequently, in 1982, responsibilities for regulating noise control policies were transferred to state and local governments. However, noise control guidelines and regulations contained in the rulings by the USEPA in prior years remain upheld by designated federal agencies, thereby allowing more individualized control for specific issues by designated federal, state, and local government agencies.

State

The State of California adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation.

Vibration and Groundborne Noise Impact Regulations

CEQA states that the potential for excessive groundborne noise and vibration levels must be analyzed; however, CEQA does not define the term "excessive" vibration. Numerous public and private organizations and governing bodies have provided guidelines to assist in the analysis of groundborne noise and vibration; however, federal, State, and local governments have yet to establish specific groundborne noise and vibration requirements. Additionally, there are no federal, State, or local vibration regulations or guidelines directly applicable to the proposed Project.

Local

Siskiyou County General Plan

Audible noise standards that are applicable to the proposed Project are described in the Noise Element of the Siskiyou County General Plan. Table 4.12-3 reflects the land use compatibility standards set by the County's Noise Element for exterior community noise. Residential land uses are identified as the most sensitive land uses, with an established noise limit of 60 dBA. Noise limits for any new development sited within a residential area is limited to 60 to 65 dBA, with noise abatement features incorporated.

TABLE 4.12-3 SISKIYOU COUNTY GENERAL PLAN NOISE ELEMENT: LAND USE COMPATIBILITY FOR EXTERIOR COMMUNITY NOISE

LAND USE CATEGORY	NOISE RANGES (L_{DN}*,DBA)			
	1	2	3	4
Passively Used Open Space (auditoriums, parks, etc.)	50	50-55	55-70	70
Residential, Motels, Hospitals, etc.	60	60-65	65-75	75
Office Buildings, Light Commercial, Heavy Commercial, etc.	65	65-70	70-75	75

Noise Range 1 – Acceptable land use, no noise abatement required.
Noise Range 2 – New construction or development, noise abatement features included.
Noise Range 3 – New construction or development, noise abatement only after detailed analysis of noise reduction requirements.
Noise Range 4 – New construction or development not allowed.
*Day-night average sound level that is equal to the 24 hour A-weighted equivalent sound level with a 10 decibel penalty applied to nighttime levels.

While the proposed Project is under the jurisdiction of Siskiyou County, land located to the east is under the jurisdiction of the City of Mt. Shasta.

Siskiyou County Municipal Code

Limitations and standards on noise are generally enforced through a noise ordinance or a jurisdiction's municipal code. There is no adopted Noise Ordinance for Siskiyou County; thus, limits on noise are not regulated by the Siskiyou County Municipal Code.

City of Mt. Shasta General Plan

Although no noise standards are currently set by a Noise Ordinance in the City of Mt. Shasta, Policy NZ-1.1 (a) states the City's intent to "Enact a noise control ordinance."

The Mt. Shasta Noise Element (Table 7-5) establishes noise standards for new uses affected by non-transportation noise. Policy NZ-1.1 states that the "standards of Table 7-5 shall be applied to both new noise-sensitive land uses and new noise-generating uses, with the responsibility for noise attenuation placed on the new use."

4.12.3 Environmental Impacts

Would the Project:

a) Would the project cause 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?

Less than Significant Impact.

Construction Impacts

Construction noise can be created from on-site and off-site sources. On-site noise sources would principally consist of the operation of heavy-duty diesel and gasoline-powered construction equipment. Off-site noise sources would include vehicles commuting to and from the job site, as well as from trucks transporting material to the staging areas or construction ROW. These sources are described below.

On-site Noise Sources

Two types of noise are associated with on-site construction activities: intermittent and continuous. On-site construction noise would occur primarily from heavy-duty construction equipment (e.g., dozers, backhoes, cranes). The following ground disturbing construction activities would be required to construct the new Lassen Substation; 1) Site preparation and grading; 2) Material haul; 3) Access road construction; 4) Concrete placement and form work; 5) Steel installation; 6) Equipment installation; 7) Bus work; 8) Testing and energization; and 9) Right-of-way restoration and cleanup. The following site and ground disturbing construction activities would be required to construct the transmission and distribution lines; 1) Survey; 2) Access road construction; 3) Auger holes for poles; 4) Material haul; 5) Structure assembly and installation; 6) Structure erection; 7) Wire installation; and 8) Right-of-way restoration and cleanup. Construction activities also include the demolition of the Mt. Shasta Substation and existing overhead structures. The following construction activities are required for removal of the existing substation; removal of equipment and above ground components. The following construction activity is required for the overhead lines; 1) Demolition of existing structures. The substation and upgrade to the transmission and distribution lines will require a six to twelve month period of time. The work will be performed primarily five days a week in a 10 hour period per day between the hours of 7 a.m. and 5 p.m. Approximately 43 workers will be required for the construction.

Noise levels from the equipment at a distance of 50 feet are shown in Table 4.12-4. The maximum intermittent land based construction noise levels would range from 90 to 100 db(A) at 50 feet for backhoes, bulldozers, and cranes supporting the substation and line construction operations. Direct noise impacts would result from construction activities occurring adjacent to sensitive receptors, such

as houses and recreation areas. However, this noise would be short-term, occurring mostly during daylight hours.

It should be noted that noise levels are calculated based on the assumption that noise from a localized source is reduced by approximately 6 dB(A) with each doubling of distance from the source of noise.

While noise levels would vary for different construction tasks, the maximum expected noise levels would occur from dozers and drilling operations.

TABLE 4.12-4 CONSTRUCTION NOISE SOURCES

Equipment	Range of Noise Levels (dB(A)) at 50 Feet
Earth Moving	
Front Loaders	66-93
Backhoes	72-92
Tractors, Dozers	68-93
Scrapers, Graders	72-92
Pavers	76-85
Trucks	65-92
Rollers	66-83
Material Handling	
Concrete Mixers	67-86
Concrete Pumps	68-81
Cranes (movable)	70-92
Cranes (derrick)	80-83
Forklifts	76-82
Tensioners	76-86
Cable Pullers	74-81
Pneumatic Tools	
Pneumatic Wrenches	84-88
Jack Hammers and Rock Drills	72-93
Compactors	80-83

SOURCE: FTA, 2006.

Off-site Noise Sources

Off-site noise during construction would occur primarily from commuting workers and from various truck trips to and from the construction sites. The procedures for bringing personnel, materials, and equipment to each structure site would vary along the route alignment. It is also assumed that truck trips would be required to haul structures, conductor line, and other materials to the construction sites. The peak noise levels (approximately 70 to 75 db(A) at 50 feet) associated with passing trucks and commuting worker vehicles would be short-term in duration, and would generate adverse but less than significant impacts.

Operation Impacts

During the Project's operational lifetime, noise generated by the new transformer would be comparable to noise generated by the transformer at the existing Mt. Shasta Substation. Based on the specifications of the proposed transformer (115x 69-12.5 kV, 15/20/25 MVA), it would generate an approximate noise level of 53 dBA at 50 feet and 33 dBA at 500 feet. Thus, transformer noise at the closest residences (345 feet and 450 feet from the proposed Project) would not exceed the County's specified maximum noise exposure levels due to stationary sources.

When compared to the existing 69 kV transmission line, the proposed transmission line would produce a negligible increase in noise level increase. Thus, operation of the Project's transmission line would not result in the generation of noise levels above 60 dBA, which is the Siskiyou County noise standard for the area. Therefore potential impacts from the operation of the transmission line would have a less than significant impact.

b) Would the project cause exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact.

Construction Impacts

Demolition of the existing Mt. Shasta Substation or construction of the Lassen Substation and associated transmission line, and distribution line upgrades (tamping of ground surfaces, drilling, and the passing of heavy trucks on uneven surfaces) may produce minor groundborne vibration in the immediate vicinity of the construction activity. Impacts from construction-related groundborne vibration, should they occur, would be intermittent and confined to the immediate area surrounding the activity.

Operation Impacts

Operation of the proposed Project would consist of routine maintenance activities and emergency repairs. These activities would be unlikely to produce groundborne vibration. Operation of transformers at the Lassen Substation could produce groundborne vibration; however, groundborne vibrations would be perceptible only in the immediate vicinity of the transformer pad, if at all.

c) Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. The permanent noise sources that would occur with the proposed Project are limited to the transmission/distribution line segment (conductors and insulators) and transformer operation at the proposed Lassen Substation.

Transmission Line Operation

Audible Noise

A typical range of noise levels for the proposed transmission line (when operated at initial 69 kV) and planned 115kV would be negligible at the center of the line and at the edge of ROW because of the low electric field gradients from the transmission line even in rain conditions. When compared to the existing 69 kV transmission line, the proposed transmission line would not generate an increase in audible noise levels. Thus, operation of the Project's transmission line would not result in the generation of noise levels above 60 dBA, which is the Siskiyou County noise standard for the area. Therefore, potential impacts from the operation of the transmission line would be less than significant. No mitigation is necessary.

Radio Noise

For transmission lines with normal conductor spacings and ROW, a fair weather RI level of 40 dBμV/m at a lateral distance of 100 feet from the outermost phase has been established as a guideline for identifying a design criteria for an RN limit (Electric Power Research Institute Transmission Line reference Book, 200 kV and Above, Third Edition). RI levels from the Mt. Shasta Substation transmission line would be less than 20 dBμV/m under fair weather conditions. This constitutes a less than significant impact, and no mitigation is required.

Substation Operation

During the Project's operational lifetime, the following sources of equipment have the potential to generate audible noise within the proposed substation: transformers, reactors, voltage regulators, circuit breakers, and other intermittent noise generators. Among these sources, transformers and reactors are the most likely to produce audible noise, usually in the form of a low-frequency humming sound. Sound generated by fans, pumps, and coolers can also contribute to this source, but typically blend in with the existing ambient noise levels. Electrical equipment within the substation is generally classified as point noise sources. For point sources, a 6 dBA reduction in noise is anticipated to occur for every doubling of the distance between the noise source and the point of measurement. This is comparable to a decrease of 20 dBA for every increase in distance from the source by a factor of ten.

The low humming noise generated from the operation of substation equipment at the proposed Project site would be mostly contained onsite and would not result in a permanent increase in ambient noise levels in the vicinity. Residences neighboring the proposed Project site are already exposed to facility noise associated with the operation of the existing Mt. Shasta Substation. Thus, the operation of a new substation at this location would not result in any appreciable increase to the existing average ambient noise levels.

As a result, the proposed Project would not cause a substantial permanent increase in ambient noise levels in the vicinity of the proposed Project above levels existing without the Project. Impacts would be less than significant.

d) Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact.

Construction Impacts

Project construction noise would be generated by on- and off-site sources. On-site construction noise would result from the operation of heavy-duty construction equipment such as bulldozers, backhoes, and cranes. Off-site noise would be produced by trucks transporting construction materials and workers to and from the staging areas, transmission line ROW, and substation site. Anticipated noise levels from individual pieces of construction equipment would typically range from 70 dBA to 100 dBA at a distance of approximately 50 feet, as indicated in Table 4.12-4. Noise levels are calculated based on the assumption that point source noise is reduced by approximately 6 dBA with each doubling of the distance from the source of the noise. As noted in Table 4.12-4, the use of heavy equipment during construction would generate intermittent noise in excess of 65 dBA. This noise would be audible to residences located within 50 feet of the Project. However, these noise levels would be short-term in duration and would occur during the day time hours only. When compared to existing noise sources within the Project vicinity (e.g., vehicles on adjacent roads and I-5, farming equipment), these intermittent noises would not represent a significant change or impact over the existing noises within the area.

Demolition of the existing Mt. Shasta Substation and construction of the new Lassen Substation and transmission and distribution line upgrades would include the temporary and intermittent use of trucks bringing construction materials and personnel to and from the proposed substation site, staging areas, and transmission and distribution line ROW and easements. The site and transmission/distribution line construction activities would take place in rural agricultural areas, although some activities would be in or adjacent to rural residential areas. Construction occurring in proximity to residential areas would occur between 7:00 a.m. and 5:00 p.m.

While impacts associated with demolition and construction activities will be less than significant, PacifiCorp will employ the following noise-reducing practices in an effort to further reduce noise produced by these activities:

- Comply with muffler requirements set by the manufacturer.
- Turn off engines when not in use, as applicable.
- Minimize unnecessary use of equipment.
- Compressors and other small stationary equipment would be shielded with portable barriers.
- "Quiet" equipment (i.e., equipment that incorporates noise control elements into the design, including some models of jackhammers and compressors) would be used during construction.
- Equipment exhaust stacks/vents would be directed away from buildings.
- Truck traffic would be routed away from noise-sensitive areas where feasible.

Operation Impacts

Operation of the proposed Project would consist of routine, short-term inspection and maintenance of the facilities. Although the Lassen Substation would be unmanned and remotely monitored, routine maintenance activities would occur as needed and would consist of testing, monitoring, and repairing equipment. Maintenance of the transmission/distribution lines would occur on as-needed basis, and activities would include repairing conductors, replacing insulators, replacing poles, and access road maintenance. Because operations would involve limited amounts of activities, the proposed Project would not contribute to a temporary increase in ambient noise in the area. Impacts would be less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The nearest public use airport is the Dunsmuir Municipal-Mott Airport, which is located approximately four miles southwest of the proposed Project. No noise impacts associated with the airport operations are anticipated to affect people working within the Project area. No impacts are anticipated.

f) For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?

No Impact. There are no private airstrips located within the vicinity of the proposed Project. Therefore, the proposed Project would not expose people working in the proposed Project Area during construction, operation, or decommissioning to excessive noise levels attributable to an airport or private airstrip. There is no impact.