

3.5 NOISE

This section describes regulations that apply to noise, noise-sensitive land uses, and existing noise sources in the project area and describes the potential noise impacts on the human environment from proposed project modifications involving construction and operation. Noise-sensitive land uses generally include those uses for which exposure to noise would result in significant adverse effects and uses where quiet is essential to the intended purpose of the land uses. Noise-sensitive uses include residences, schools, hospitals, community centers, and places of worship. Noise effects are evaluated according to the standards of the jurisdiction in which they are generated, regardless of where they are perceived. The 2007 Landside EIR “Environmental Setting” provided an overview of acoustic fundamentals, including definitions of noise terminology used in this section and an explanation of the A-weighted decibel scale (dBA) scale (DEIR, Section 3.12.2). That information is hereby incorporated by reference.

3.5.1 REGULATORY SETTING

The “Regulatory Setting” in the 2007 Landside EIR has remained unchanged and is hereby incorporated by reference. The 2007 Landside EIR addressed the federal, state, and local regulations, laws, and ordinances listed below.

FEDERAL

- ▶ U.S. Environmental Protection Agency
- ▶ U.S. Department of Transportation

STATE

- ▶ Governor’s Office of Planning and Research
- ▶ California Code of Regulations
- ▶ California Department of Transportation

LOCAL

- ▶ Sutter County
- ▶ Sacramento County
- ▶ City of Sacramento
- ▶ Sacramento County Noise Control
- ▶ City of Sacramento Noise Control Code

3.5.2 ENVIRONMENTAL SETTING

The “Environmental Setting” in the 2007 Landside EIR has remained unchanged and is hereby incorporated by reference. The 2007 Landside EIR described sound and the human ear, sound propagation, noise descriptors, existing noise conditions, and noise-sensitive land uses in the project area and the construction area. As necessary, the setting associated with the changes to the project is detailed below under “Impact Analysis.”

3.5.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

3.5.3.1 SIGNIFICANCE CRITERIA

The thresholds for determining the significance of impacts for this analysis are based on the environmental checklist in Appendix G of the CEQA Guidelines. The proposed project was determined to result in a significant effect on the noise environment if it would:

- ▶ result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- ▶ expose people residing or working in the project area to excessive noise levels;
- ▶ expose persons to or generate excessive groundborne vibration or groundborne noise levels;
- ▶ 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, expose people residing or working in the project area to excessive noise levels; or
- ▶ for a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

The 2007 Landside EIR addressed exposure of construction workers to excessive noise levels from Sacramento International Airport (Airport) operations, and that analysis is hereby incorporated by reference. The proposed modifications would not change this exposure from what has already been analyzed; therefore, the fourth threshold is not discussed further in this SEIR.

The 2007 Landside EIR noted that the project area contains no private airstrips, and that discussion is hereby incorporated by reference. The last significance threshold is not discussed further in this SEIR.

The following considerations apply to the first three significance thresholds:

- ▶ **Temporary and short-term construction noise impacts:** Temporary and short-term construction noise impacts would be significant if construction-generated noise levels exceed the levels shown in Table 3.12-1 (DEIR, page 3.12-3) at nearby noise-sensitive land uses.
- ▶ **Noise impacts from haul truck traffic:** For all affected residential land uses, noise generated by haul trucks associated with the project would be significant if it would cause the overall exterior noise level to exceed the “normally acceptable” exterior land use compatibility noise standard of 60 dB day-night average noise level/community noise equivalent level ($L_{dn}/CNEL$) for residential land uses or would exceed the interior noise standard of 45 dB $L_{dn}/CNEL$ in any inhabitable residence (Table 3.12-2, DEIR, page 3.12-3).
- ▶ **Exposure of sensitive receptors to or generation of excessive vibration levels.** Temporary, short-, and long-term vibration impacts would be significant if construction or operation of the proposed project would result in the exposure of sensitive receptors to, or would generate, vibration levels that exceed the California Department of Transportation’s recommended standard of 0.2 inches per second peak particle velocity concerning the prevention of structural damage for normal buildings (Caltrans 2002) or the Federal Transit Administration’s maximum acceptable vibration standard of 80 vibration decibels concerning human response for residential uses (i.e., annoyance) (FTA 2006) at any nearby existing sensitive land uses.

The 2007 Landside EIR addressed the exposure of sensitive receptors to or generation of excessive groundborne vibration or noise, long-term increases in noise, and exposure of construction workers to excessive noise level

from Airport operations. That analysis is hereby incorporated by reference. The proposed modifications would not increase the use of pile-driving that could cause groundborne vibrations; therefore, the third threshold is not discussed further in this SEIR.

The 2007 Landside EIR addressed exposure of residents to increased traffic noise levels from hauling activity, and that analysis is hereby incorporated by reference. The proposed modifications would eliminate certain borrow sites and shift most borrow material hauling to off-road routes, thus reducing the potential exposure of residents to increased traffic noise levels from hauling activity. This impact is not discussed further in this SEIR.

The proposed project modifications would not change the types of construction activities, add new long-term noise sources, or increase exposure of construction workers to Airport noise sources. Consequently, these impacts are not discussed further in this SEIR.

3.5.2 IMPACT ANALYSIS

IMPACT 3.5-a **Generation of Temporary, Short-Term Construction Noise.** *Construction of proposed cutoff walls on a 24-hours-per-day, 7-days-per-week basis could generate noise levels that exceed the local noise standards for stationary sources at nearby sensitive receptors. In addition, because this construction would occur during the noise-sensitive evening and nighttime hours, it would have the potential to cause sleep disturbance at nearby residential land uses. This impact would be significant.*

The 2007 Landside EIR addressed a variety of construction activities that could generate noise levels that exceed the local noise standards for stationary sources at nearby sensitive receptors. That analysis is hereby incorporated by reference. The proposed modifications would not change the types of construction activities in the Phase 2 Project. However, as noted in Section 2.2.2 of this SEIR, SAFCA may conduct cutoff wall construction on a 24-hours-per-day, 7-days-per-week basis in order to complete construction of cutoff walls before the flood season while providing sufficient drying and curing time to ensure high-quality cutoff walls. The 2007 Landside EIR disclosed that noise may be generated by construction equipment operating near homes during the more noise-sensitive early morning and nighttime hours and could result in increased annoyance and/or sleep disruption to occupants of residential dwellings and other sensitive receptors. It also disclosed that cutoff wall construction along the Natomas Cross Canal (NCC) south levee (Reaches 3–7) could occur 24 hours a day. With the proposed project modifications, this activity could occur on a 7-days-per-week schedule. In addition, 24-hours-per-day, 7-days-per-week construction also could occur in Reaches 1–4B of the Sacramento River east levee, where cutoff walls would be installed in the new adjacent setback levee. The 2007 Landside EIR established that major construction activities would exceed the hourly thresholds for daytime, evening, and nighttime periods for both Sutter and Sacramento Counties, even after implementation of mitigation. The Phase 2 Project construction noise impact with the proposed project modifications would be significant.

Mitigation Measure 3.5-a: Implement Noise-Reducing Construction Practices, Prepare and Implement a Noise Control Plan, and Monitor and Record Construction Noise Near Sensitive Receptors.

Mitigation Measure 3.12-a from the 2007 Landside EIR, which remains unchanged, is copied below.

SAFCA and its primary contractors for engineering design and construction shall ensure that the following measures are implemented at each work site in any year of project construction to avoid and minimize construction noise effects on sensitive receptors. These measures are consistent with SAFCA’s standard contract specifications for noise control.

The primary construction contractors shall employ noise-reducing construction practices. Measures that shall be used to limit noise shall include the following:

- ▶ Equipment shall be used as far away as practical from noise-sensitive uses.

- ▶ All construction equipment shall be equipped with noise-reduction devices such as mufflers to minimize construction noise and all internal combustion engines shall be equipped with exhaust and intake silencers in accordance with manufacturers' specifications.
- ▶ Equipment that is quieter than standard equipment shall be used, including electrically powered equipment instead of internal combustion equipment where use of such equipment is a readily available substitute that accomplishes project tasks in the same manner as internal combustion equipment.
- ▶ Construction site and haul road speed limits shall be established and enforced.
- ▶ The use of bells, whistles, alarms, and horns shall be restricted to safety warning purposes only.
- ▶ Noise-reducing enclosures shall be used around stationary noise-generating equipment (e.g., compressors and generators).
- ▶ Fixed construction equipment (e.g., compressors and generators), construction staging and stockpiling areas, and construction vehicle routes shall be located at the most distant point feasible from noise-sensitive receptors.
- ▶ When noise sensitive uses are within close proximity and subject to prolonged construction noise, noise-attenuating buffers such as structures, truck trailers, or soil piles shall be located between noise generation sources and sensitive receptors.
- ▶ Before construction activity begins within 500 feet of one or more residences, written notification shall be provided to the potentially affected residents, identifying the type, duration, and frequency of construction activities. Notification materials shall also identify a mechanism for residents to register complaints with the appropriate jurisdiction if construction noise levels are overly intrusive. The distance of 500 feet is based on the 60-dBA contour of the loudest anticipated construction activity other than pile driving (as listed in Table 3.12-4).
- ▶ If noise-generating activities are conducted within 100 feet of noise-sensitive receptors (the 70-dBA noise contour of construction noise), the primary contractor shall continuously measure and record sound generated as a result of the proposed work activities. Sound monitoring equipment shall be calibrated before taking measurements and shall have a resolution within 2 dBA. Monitoring shall take place at each activity operation adjacent to sensitive receptors. The recorded noise monitoring results shall be furnished weekly to SAFCA.
- ▶ The primary contractor shall prepare a detailed noise control plan based on the construction methods proposed. This plan shall identify specific measures to ensure compliance with the noise limits specified above. The noise control plan shall be submitted to and approved by SAFCA before any noise-generating construction activity begins.

These measures would reduce interior and exterior noise levels at noise-sensitive receptors located near construction sites. However, standards applicable to local exterior noises would not be reduced to a less-than-significant level at every nearby receptor. Therefore, the impact of temporary, short-term construction noise on sensitive receptors would be **significant and unavoidable**.