

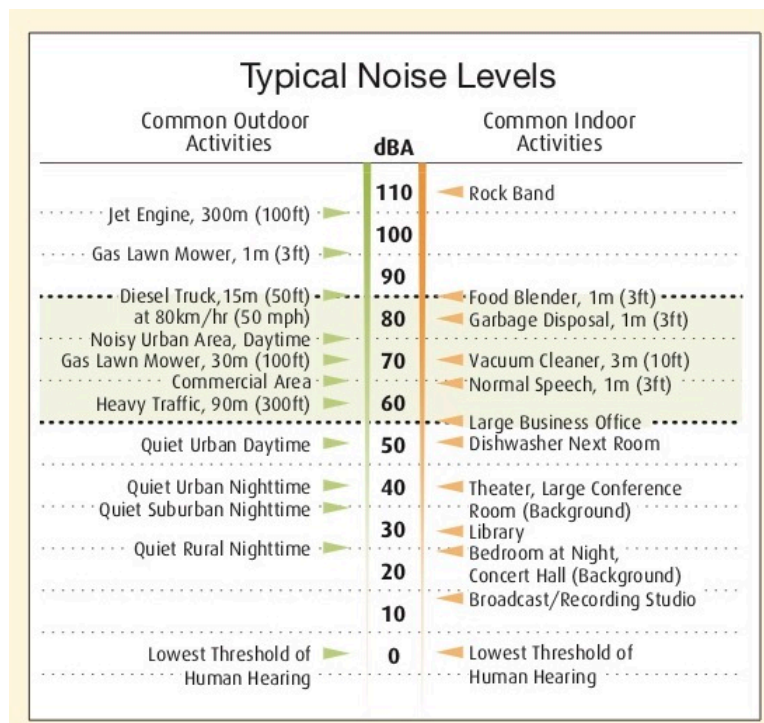
3.7 NOISE

AFFECTED ENVIRONMENT

The project area is located in Douglas County, Nevada, and is within the boundaries of the Tahoe Regional Planning Agency (TRPA) and the South Shore Area Plan. Noise is often defined simply as unwanted sound, and thus is a subjective reaction to characteristics of a physical phenomenon. Sound levels are measured in logarithmic decibels. Therefore, a doubling of acoustical energy results in a change of 3 decibels (dB) which is considered to be barely perceptible. A 10-fold increase in acoustical energy yields a 10 decibel change, which is subjectively a doubling of loudness. A-weighted sound pressure levels expressed as dBA are very well correlated with community reaction to noise. Variations in sound levels over time are represented as Community Noise Equivalent Level (CNEL). The CNEL is defined as the 24-hour average noise level with noise occurring during evening hours (7:00 p.m. – 10 p.m.) weighted by a factor of three, and nighttime hours (10 p.m. – 7 a.m.) weighted by a factor of 10, prior to the averaging. The measured CNEL values generally agree within 1 dBA. Figure 3.7-1 lists several examples of the noise levels associated with common situations.

Noise sources in the vicinity of the project area are associated primarily with traffic on U.S. 50 and Lake Parkway. Since this is the most active and developed urban area at Lake Tahoe, noise generation is higher in the project area than many other Lake Tahoe locations. Sensitive receptors are within one half mile and include homes (within one half mile) and schools (approximately 1.5 miles). The adjacent hotels are more closely located sensitive noise receptors but are also sponsors of the proposed facility. The Proposed Action is also located near existing recreation areas such as Edgewood Golf Course and Van Sickle Bi-State Park.

Figure 3.7-1: Examples of Typical Noise Levels (Caltrans District 11)



According to the Regional Plan Update EIS, the existing noise level along US 50 in Stateline, NV is approximately 65 CNEL as measured 100 feet from the roadway centerline. The 2015 Threshold Evaluation Report indicated that the maximum 24-hour CNEL in 2014 was 63.9 CNEL, which is an improvement from the levels found during the 2012 Regional Plan Update EIS and indicates the area is in attainment of the noise threshold. The South Shore Area Plan indicates 65 CNEL is the maximum level allowed in the US 50/Lake Parkway corridor. Potential changes in noise levels would be primarily associated with reductions or increases in the volume of traffic on the roadway, and to a lesser degree, large outdoor events, which tend to be seasonal and sporadic in both number of events and duration.

IMPACT EVALUATION CRITERIA

A noise impact is defined as an increase in the ambient noise level above the threshold standards for the location or exposure of persons to severe noise levels. TRPA and Douglas County have adopted CNEL values for the South Shore Area Plan. The noise standard for the U.S. 50 corridor and Lake Parkway is 65 CNEL.

ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION

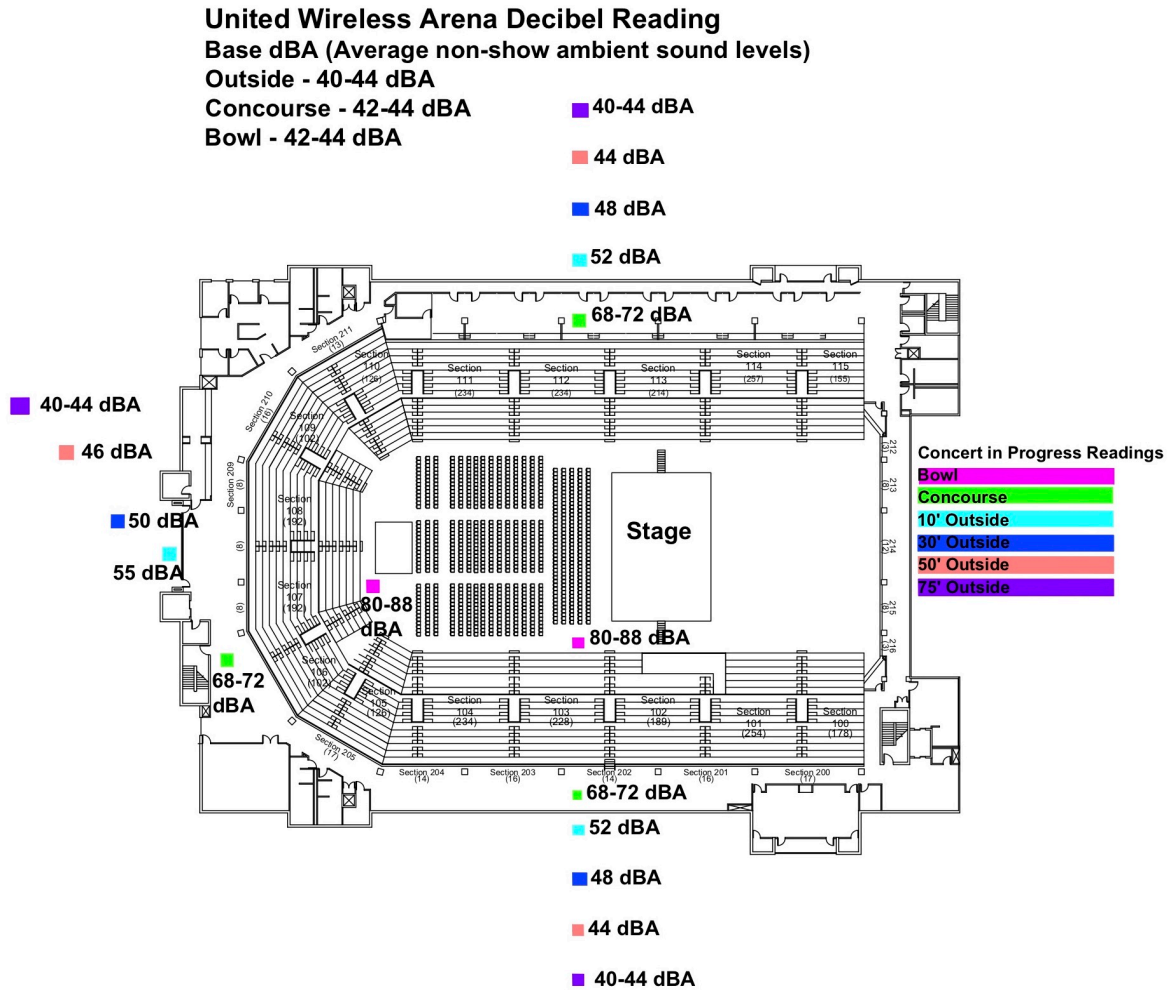
There are no noise impacts associated with the No Action alternative.

Impact: **Increase the existing Community Noise Equivalency Levels beyond those permitted in the South Shore Area Plan (TRPA 6.a)**

Analysis: The Proposed Action is construction and operation of the TSEC building, an enclosed events center and its adjacent event lawn. Noise generated within the structure would be mostly insulated from outside noise receptors. While noise producing events such as sporting events and concerts may occur in the building, they would not be substantially audible outside the building, and an events center is not considered a significant stationary source such as an industrial complex. Figure 3.7-2 documents the decibel readings that were recorded at a 2019 concert in Dodge City Kansas. The Dodge City facility was selected for the noise measurements because the building is comparable to the TSEC in size and the maximum seating capacity is also 6,000. As documented in the figure, the maximum noise level recorded outside the facility was 55 dBA and at distances of 75 feet, noise levels fell to less than 45 dBA.

Exterior noise would also include mechanical equipment noise; however, the primary noise source would be event traffic and vehicle activity associated with operation of the facility. According to Caltrans, traffic noise is mainly caused by tire contact with the road (75 to 90% of traffic noise), and to a lesser degree engines and exhaust systems. Other factors include heavy duty truck volumes, higher speeds, and roadway grades. Heavy traffic is typically associated with noise levels of 60 dBA at a distance of 300 feet. By comparison, commercial areas and normal speech (measured at a distance of three feet) are typically around 65 dBA. Traffic noise is loudest when it is free-flowing or non-stop and just before or after peak traffic hours. Congestion reduces traffic noise levels due to slower speeds.

Figure 3.7-2: Measured Noise Levels at similar Events Center Facility



Source: Rick Kozuback, President/CEO, International Coliseums Company, 11/16/19

The project area is characterized with high tourist and pedestrian traffic. Increases in traffic have the potential to affect noise levels audible to pedestrians and tourists in the hotel units along U.S. 50. Since the U.S. 50 corridor already operates near the threshold limit of 65 CNEL, additional vehicle trips have the potential to increase the measured CNEL level. Table 3.6-1 shows existing traffic noise levels recorded along US 50 in the vicinity of the Proposed Action.

The Proposed Action is designed to be pedestrian focused to capture visitors staying in nearby hotels and vacation rentals. In addition, the Proposed Action would improve the existing transit stop and support a microtransit shuttle program to encourage transit trips rather than individual vehicle trips. The traffic study (page 3.5-30) estimates the microtransit shuttle program would reduce trips by approximately 4 percent in peak hour, peak-direction travel prior to an event and approximately 1 percent following an event.

Table 3.6-1

Existing Traffic Noise Levels

Roadway	Segment	CNEL @ 100 Feet	Distance to Traffic CNEL Contours (feet)		
			55 dBA	60 dBA	65 dBA
US 50	Lake Pkwy - Kingsbury	63 dBA	365	169	79
US 50	Lake Pkwy - Casino Core	62 dBA	309	144	67
US 50	Casino Core - Stateline	63 dBA	319	148	69

Source: j.c. brennan & associates, Inc. 2014

The paid parking program under the Proposed Action would reduce existing vehicle trips as the four major casinos in the area, MontBleu, Hard Rock, Harvey’s and Harrah’s, would initiate a formal paid parking program ~~during peak summer period (mid June through Labor Day weekend) and key offpeak weekends and holidays during the rest of the year.~~ As reported in the traffic section (page 3.5-26), the paid parking program would encourage fewer private vehicle trips and is estimated to reduce total daily vehicle trips (currently equal to approximately 34,900 trips) generated by visitors/guests to the four casinos by approximately 11 percent for a potential reduction of 3,220 existing daily trips.

As reported in the traffic analysis (~~page 3.5-32~~ Table 3.5-10), the Proposed Action would generate approximately ~~1,322-302~~ new daily one-way vehicle trips for a 2,500 person event during the summer peak period (maximum sized event allowed during peak summer). Outside venue events, staff and deliveries would create approximately 51 daily vehicle trip ends. The addition of approximately 51 daily trips would cause no audible difference in noise levels and no difference in noise level would occur the majority of the time. Traffic generated during venue events would be heaviest at the peak hours immediately before and after event start and end times. The traffic study indicates that trips at summer peak hours (event start and end hours) would range from about 342 trips to 456 trips. With concentrated high levels of traffic, congestion and slower vehicle movement occurs, which reduces traffic vehicle noise due to slow speeds. Decreased speeds, and therefore decreased vehicle noise, offsets noise caused by the potential increase in traffic volume.

Existing daily traffic numbers along U.S. 50 in the vicinity of the TSEC range from 22,000 to nearly 38,000 trips (in both directions). For increased traffic to be noticeable and have a potential to exceed existing CNEL measurements, the number of vehicles in the TSEC area along U.S. 50 would have to double. With the proposed paid parking program there is no opportunity for vehicle trips to double in the project vicinity, and for noise levels to increase by 3 dB (and be a noticeable change), vehicle trips along U.S. 50 in the vicinity of the TSEC would have to increase far greater than the calculated daily trips reported in Section 3.5 (Table 3.5-10).

Alternatives A, B and C would each result in a similar level of impact, and would result in greater increase in vehicle trips and therefore traffic noise in the vicinity of the TSEC. Traffic studies originally conducted for Alternative C (original Project) indicate this alternative would result in approximately 1,687 new daily one-way vehicle trips during

average sized events during the summer. Outside venue events, staff, and deliveries would create approximately 51 daily vehicle trip ends, which would cause no perceptible difference in noise levels. The traffic study indicates that trips at summer peak hours (event start and end hours) would range from about 439 trips to 587 trips. However, under these alternatives there would be no paid parking program and microtransit operations that would offset the trip generation associated with the TSEC operations. However, neither alternative would result in large enough traffic volume increases that would double the number of vehicles on the roadway at one time and result in measurable changes to traffic noise levels – this is a result of the high baseline traffic volumes on U.S. 50.

Alternative B would have slightly different localized traffic noise levels, as it would relocate the TSEC away from U.S. 50, while maintaining the access to the parking areas from U.S. 50 and Lake Parkway. This would result in the same traffic -generated noise levels as Alternatives A and C. But by locating the TSEC behind the MontBleu parking area and hotel, the outdoor noise levels in this area would increase during events due to patrons entering and exiting the facility farther away from U.S, 50 and its noise levels. While the noise level around the TSEC would increase slightly during events under Alternative B, it would not be at a level that would exceed CNEL limits or result in substantial disturbance to MontBleu visitors or operations. Alternative B would eliminate the service vehicle access that runs from the alley to Lake Parkway, requiring all service trips to utilize the alley access from U.S. 50 rather than the service access point on Lake Parkway. This too has the potential to increase service noise within the alley corridor, although it would not result in substantially elevated or continuous noise levels, noticeable to sensitive receptors.

Mitigation: No mitigation is required.

Impact: Expose People to Severe Noise Levels or Create a Single Noise Level Greater Than the Noise Environmental Threshold (TRPA 6.b, 6.c)

Analysis: Construction would result in temporary noise increases; however, no extraordinary noise level above typical construction noise is anticipated. Construction activities could potentially expose noise-sensitive receptors to levels that exceed Douglas County and TRPA noise standards. Demolition of the existing parking lot, clearing, excavation, grading, foundation work, paving, utility installation, building construction, and cleanup involve heavy equipment that produce noise. Equipment such as excavators, graders, dump trucks, generators, loaders, compactors, and cranes produce noise levels between 70 and 85 dBA L_{max} at 50 feet. If blasting or pile driving is needed, noise levels could reach 101 dBA L_{max} at 50 feet. Construction noise levels are exempt between the hours of 8:00 a.m. and 6:30 p.m. Construction noise would be most audible to patrons on the MontBleu Casino and Resort, the Hard Rock Hotel and Casino and patrons of the Edgewood Golf Course. If construction occurred outside this time, guests of the adjacent hotels could be exposed to severe noise levels. As discussed in the Project Description, construction measures include noise best management practices. Active construction would be limited to between the hours of 8:00 a.m. and 6:30 p.m., except during potential continuous concrete pours, which would occur during overnight hours if required for the project’s foundation. Exceptions to the construction limitation (exceedance of CNEL levels outside the hours of 8:00 a.m to 6:30 p.m.) will need to be acquired to allow certain types of construction work outside the exemption hours. Equipment would be equipped with mufflers and engine shrouds per the manufacturers’ specifications and vehicle idling for construction equipment should be kept to a maximum of five minutes.

Single event noise standards are established in Douglas County Code Section 20.703.205 and TRPA Code Section 68.31 for aircraft, watercraft, motor vehicles, motorcycles, off-road vehicles, and snow vehicles. Activities that would use these types of vehicles are not proposed, and no impact related to their use would occur.

The same impacts anticipated for the Proposed Action would occur for Alternatives A, B, and C. Alternative B, however, would be located closer to the existing MontBleu and has increased potential to disturb guests of the hotel during construction.

Mitigation: **NOISE-1: Reduction of Nighttime Construction Noise.** While TRPA Code prohibits noise-generating construction activity that exceeds CNEL limits (e.g., 65 in the casino core) outside the hours of 8:00 am to 6:30 pm, some nighttime construction activity may be necessary in order to construct the TSEC. To address construction noise created during overnight hours for certain types of construction activities, such as continuous concrete pours, the applicant shall implement the following noise reduction measures. In addition to implementing TRPA's Best Construction Practices Policy for the Minimization of Exposure to Construction-Generated Noise and Ground Vibration, the following measures shall be implemented during nighttime construction (6:30 pm to 8:00 am) operations to avoid noise impacts.

1. Provide advance notice to owners of tourist accommodations and commercial land uses within 1,000 feet of the nighttime activity. The notice shall include construction schedules and hours for the nighttime construction, and shall include the name and number of the applicant and contractor's communications and complaint liaison.
2. A communications and complaint liaison shall be designated, and their contact information posted around the construction site and listed on public notifications. The liaison shall be responsible for receiving and responding to public complaints, including determining the cause of the complaint and implementing feasible actions to address the complaint.
3. When nighttime noise is scheduled, the construction activity shall include temporary noise barriers/curtains and other similar methods, as necessary, placed between the activity location and nearby receptors. Equipment staging shall be located away from tourist accommodations to keep maintain CNEL noise limits within the project area.
4. Equipment backup alarms shall not be used during nighttime construction. Alternative warning systems shall be used between 6:30 pm and 8:00 am, such as flagging.
5. To the extent feasible, nighttime construction would be limited to weekday periods outside of holidays to avoid impacts to tourist accommodations during peak weekend periods when occupancy rates are highest.

REFERENCES

Caltrans. 2015. "Traffic Noise Basics". Caltrans District 11. July 2015

Federal Highway Administration. 1978. *FHWA Highway Traffic Noise Prediction Model, Report No. FHWA-RD-77-108*. Washington, DC: Federal Highway Administration. Dec. 1978.