Chapter 9
NOISE

9.1 INTRODUCTION

This chapter identifies the potential environmental impacts of noise that could result from implementation of Alternative 6. The existing noise conditions of the project area are described in Section 9.1 of the original DEIS and are not repeated here. Please refer to the DEIS.

REGULATORY CONSIDERATIONS

This analysis of Alternative 6 uses the same established noise impact criteria that were employed in the analysis of the other alternatives. They are listed in Section 9.1 of the DEIS. Please refer to the DEIS.

9.2 EXISTING NOISE CONDITIONS AND TRENDS

Existing conditions for Alternative 6 and trends with respect to noise for the area are the same as those presented in Section 9.2 of the DEIS for the five originally proposed alternatives. Refer to Section 9.2 of the DEIS.

9.3 SUMMARY OF PROJECT ALTERNATIVES – ALTERNATIVE 6

As discussed in Chapter 2 of the DEIS, the different alternatives would have varied effects on Shorezone development at Lake Tahoe. Section 9.3 of the DEIS contains a summary of the five originally proposed alternatives. Alternative 6 is summarized below.

ALTERNATIVE 6 – DENSITY-BASED, 230-PIER ALTERNATIVE

Alternative 6 implements a new approach to the authorization of pier construction, based on planned density of piers within specified shoreline types and a limited annual approval rate leading to no more than 220 private and 10 public (230 total) piers within the timeframe of the PATHWAY 2007 Regional Plan update (2027). Up to 10 new private piers may be approved each year. Under this alternative, all private parcels that do not have an existing pier or deed restrictions related to access to a multi-use pier would be potentially eligible for a pier. Eligibility criteria also require that existing shoreland structures achieve a scenic contrast rating score of 25 or better and that current Best Management Practices (BMPs) are in place, among other provisions. Also, only multi-use piers could be approved in shoreline travel units that have not attained scenic thresholds. Owners of eligible parcels may apply for a new single or multi-use pier, the approval of which would be determined by the length of shoreline retired by the
approval (i.e., approval of a pier would retire the parcel or parcels with access to the pier from future eligibility and first priority would be assigned to applications with the greatest length of retired shoreline). All piers must comply with design standards adopted by TRPA to ensure that scenic code requirements and thresholds are met.

Up to two buoys would be allowed on every private littoral parcel, as long as they could meet adjacent property setback, shoreline distance, and separation standards. All buoys must be set back at least 25 feet from the adjacent property line, as measured from the line extended into the water. They must be located no more than 350 feet from the high water shoreline, or within the shorezone area defined by the 6,219-foot contour line on the lakebed where shallow water makes achievement of the 350-foot distance from the high water shoreline impossible. The minimum separation distance between buoys must be 50 feet.

At public marinas, in common areas controlled by homeowners associations (or similar entities), or on public properties where piers are allowed, the buoys must be located within the area defined by the side property setback and shoreline distance standards. The maximum number of buoys would be determined by these dimensions and the minimum separation distance of 50 feet. Also, buoy fields controlled by homeowners associations may not contain more buoys than the number of participating homes in the association.

Only public boat launching ramps would be added under Alternative 6. Therefore, they would only be added where public street access to the shoreline is present with shoreland area that is suitable for the launch ramp use and other mitigation (e.g., sewer and water connection).

9.4 STANDARDS OF SIGNIFICANCE

This scientific and analytical basis for the evaluation of the noise impacts of Alternative 6 is the same as used for the other alternatives and is not repeated here. Refer to Section 9.4 of the DEIS.

9.5 POTENTIAL NOISE IMPACTS AND REQUIRED MITIGATION MEASURES

ALTERNATIVE 6 – DENSITY-BASED, 230-PIER ALTERNATIVE

The following impacts have been determined to be significant when evaluated against the specific criteria described. The references to grid units correspond with the figures in Chapter 2 associated with each alternative.

Increased Boat Usage

This alternative could affect Community Noise Equivalent Level (CNEL) standards around the entire lake. Implementation of Alternative 6 would result in increases in piers and buoys of approximately 19 and 8 percent, respectively, in comparison to
Alternative 1. Overall, implementation of Alternative 6 would result in an approximate 2 percent increase in total structures (i.e., piers, buoys, ramps, docks, and slips) in comparison to Alternative 1 and a 28 percent increase in comparison to the 2004 baseline. In comparison to all the alternatives, implementation of Alternative 6 would result in more total structures than Alternatives 1 and 5, but less than Alternatives 2, 3, and 4.

Additional public and private structures would generate increased noise from motorized watercraft, especially near new personal watercraft operations. Because Alternative 6 results in additional structures in the Shorezone, significant increases in noise levels throughout the area would occur from motorized watercraft.

Of the 203 grid units of 2,000 feet that make up the Shorezone of Lake Tahoe, Shorezone structures would at least double on approximately 62 units as a result of implementation of Alternative 6. This would be more than Alternatives 1, 4, and 5, but less than Alternatives 2 and 3. In many of these units, the increase in structure numbers would be much higher than a mere doubling, so the noise impacts associated with the increases would be higher than 3 dBA. It should be pointed out that because the number of structures does not correspond proportionally to the boating trips in each alternative, analyzing solely the number of structures does not provide a perfect comparison between the alternatives. For instance, Alternative 6 represents a 28 percent increase in total structures from the 2004 baseline, but a 29 percent increase in boats at one time (BAOT), boat trips per year, and launches per year. The BAOT number with respect to Alternative 6 would be approximately 4 percent higher than that of Alternative 1, although the total number of structures would be 2 percent higher.

Some of the impact sites also correspond with certain wildlife zones. This would create additional potential impacts to wildlife in these areas. For additional discussion of impacts to wildlife, see Chapter 12.

Vehicles Accessing Public Facilities

In addition to the noise associated with motorized watercraft, noise impacts would also occur from vehicles accessing new public facilities. Overall, public facilities would be forecasted to increase by approximately 47 percent, and there would be approximately 25 units (of the 203 grid units) where public structures are forecasted to double. Most of these would result in increased vehicle traffic to the sites, although some of these would not be accessible by automobile.

Significant Noise Impacts

Impact 9.6.1: Alternative 6 would result in an increase in noise from boating activity.

As identified above, implementation of Alternative 6 would result in significant noise impacts; specifically, impacts would be significant in local areas where the noise would increase by 3 dBA or greater. In those areas where buoy fields are anticipated, the noise associated with the increase in boating could rise substantially. This would result in a significant impact on noise.

To mitigate the potential impact to noise from boating activity, TRPA shall implement the following measures, which were included as Mitigation Measures 9.1.1a and 9.1.1b in the DEIS:
Mitigation Measure 9.6.1a: Use of signing and other educational means to advise the public of potential noise problems and increase awareness of the 600-foot no-wake zone.

Mitigation Measure 9.6.1b: To prevent exceedances of noise standards, the following measures will be implemented based on the status of the project area. The increased noise levels associated with increased structures will be determined by expert analyses of the specific location and proposed project(s). Noise analyses will be required where structures are expected to increase the number of boats on the lake by 5 or more.

In shoreline areas found to be out of attainment of TRPA’s CNEL standard based on long and short term monitoring included in the sticker program, no new buoys will be allowed.

In shoreline areas found to be within 3 dBA of the CNEL standard based on the monitoring designated above (prior to the addition of structures), the increase in buoy density at buildout must be consistent with maintaining noise levels at or greater than 1 dBA below the CNEL standard.

In shoreline areas where an increase in structures is expected to increase noise by greater than 3 dBA, buoy density will be limited to correlate with an increase in noise of 3 dBA or less.

The monitoring of this mitigation measure will be partially or fully funded and implemented by the sticker program.

Implementation of these mitigation measures would reduce this potentially significant impact to a level that is less than significant.

Impact 9.6.2: Alternative 6 would result in an increase in noise from vehicle traffic accessing public facilities.

With this alternative, certain areas would experience additional significant noise impacts resulting from an increase in public facilities. Not all of these sites would be accessible by automobile, and so some sites would not result in any impacts in addition to that from the motorized watercraft. However, the majority of these sites would have significant impacts from both motorized watercraft and vehicles accessing the sites.

To mitigate the potential impact to noise from vehicle traffic, TRPA shall implement the following measure, which was included as Mitigation Measure 9.1.2a in the DEIS:

Mitigation Measure 9.6.2a: To prevent exceedances of noise standards associated with increases in vehicle traffic, the following measures will be implemented based on the status of the project area. The increased noise levels associated with increased structures will be determined by expert analyses of the specific location and proposed project(s). Noise analyses will be required where structures are expected to increase the number of boats on the lake by 5 or more.

In areas found to be out of attainment of TRPA’s CNEL standard based on long and short term monitoring included in the sticker program, no new structures which would
increase the number of vehicles in the area will be allowed unless mitigation strategies can be identified to reduce the noise impact to a less than significant level.

In areas found to be within 3 dBA of the CNEL standard based on the monitoring designated above (prior to the addition of structures), the increase in shoreline structures at buildout must be consistent with maintaining noise levels at or greater than 1 dBA below the CNEL standard.

In areas where an increase in structures is expected to increase noise by greater than 3 dBA, the increase in structures will be limited to correlate with an increase in noise of 3 dBA or less.

Implementation of this mitigation measure would reduce this potentially significant impact to a level that is less than significant.

Other Non-significant Noise Impacts

Alternative 6 could result in noise impacts to wildlife. Under this alternative, the increases in noise levels would not cause any significant impacts to the wildlife impact areas identified previously. TRPA has adopted a 600-foot no-wake zone standard to implement the Personal Sound Interference Level (PSIL) standard to maintain certain noise levels on shore. This standard, when fully enforced, would assist in controlling noise to a level that would be conducive to maintaining the wildlife management zones as identified above. This would not be a significant impact and no mitigation is required.

Beneficial Noise Impacts

Under Alternative 6, the number and/or engine type of boats entering Emerald Bay would be reduced during periods of high use, primarily to protect water quality. However, this would result in a beneficial impact to the noise environment due to the reduction in the number of motorized watercraft during those periods.