Acceptable Noise Levels for Typical Outdoor Leisure Activities (Part II)

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Abstract: This study is a continuation of Acceptable Noise Levels for Typical Outdoor Leisure Activities (Part I). Its purpose was to determine the noise levels at the closest guest location for each of the 12 sporting clays stations. Ninety-six samples (8 per station) were collected in October 2016. The average noise level was 53.0 dBA (σ = 4.19 dBA). An analysis at the statistical confidence level of 97.5% was conducted. All stations were analyzed in a pairwise comparison. Stations that were not significantly different from one another were combined reducing 1212 stations to three stations. The analysis determined that the noise level at stations 1 through 5 (48.9dBA, σ =1.50 dBA) was significantly lower than from the other stations. Next loudest was the combinations of stations 6, 7, 10, and 11 (54.1 dBA, σ = 1.69). The last loudest combination was stations 8, 9, and 12 (58.6 dBA, σ = 1.50 dBA). This difference was 9.7 dBA between the lowest and the loudest station. Since every 5 dBA difference equates to 2 to 3 times louder, depending on frequency, the loudest station is approximately 4 to 6 times louder than the lowest noise level. However, all stations are below the OSHA Standard. For the variable wind speed and direction a regression analysis was used to develop a highly significant model to predict noise levels with the variables collected at tourist attraction and tourist lodging. As stated in (Smith et al., 2017) the few complaints about the noise levels are not supported by the data. Potential solutions might be to examine stations 8, 9, and 12 and considering possible relocation, orientation, or emplacement of a thick tree barrier to absorb the reports. By range policy target loads are required, however, on some occasions this policy has been disregarded.

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