

37. NOISE

37.1 Introduction

Because sound is a fundamental component of daily life, noise-monitoring surveys were conducted in and around Williamsport, at the head of Iliamna Bay (Figure 1-4), to describe baseline noise levels and to characterize the existing noise environment.

Land near Williamsport and Iliamna and Iniskin bays is virtually all undeveloped. There is a single residential/commercial use area at Williamsport that is occupied during summer when residents operate a boat-hauling service, moving vessels back and forth between Cook Inlet and Iliamna Lake. The operation requires use of a large tractor-trailer powered by a diesel engine. During winter, there are no residents in the study area.

Ambient noise levels for the study area were not specifically measured, but were predicted using measured noise levels from two sites in the Bristol Bay drainages—one north of the Iliamna Airport along Newhalen River Road and another southeast of the community of Pedro Bay (Figure 1-4). In addition, the predictions relied on general experience and measured noise levels from other areas in central Alaska.

Actual noise measurements were taken in accordance with guidelines from the American National Standards Institute (ANSI). Noise levels are stated in terms of decibels on the A-scale (dBA). Examples of familiar sounds are shown in Table 37-1.

37.2 Results

While some sounds (e.g., floatplane takeoffs) registered very high on the dBA scale, these were only of short duration. A more useful measurement averages all sounds over a given period, e.g., an hour; therefore, the results below are reported in average hourly noise levels.

Overall noise levels in the areas around Williamsport and Iliamna and Iniskin bays were predicted to range from below 30 dBA to over 60 dBA.

Noise levels during summer were predicted to range from 36 to over 60 dBA, with the highest levels expected during the transportation of vessels in both directions between Cook Inlet and Iliamna Lake. Typical maximum noise levels for a tractor-trailer range from 86 to 90 dBA at 50 feet from the source of the noise. The haul vehicle is likely the major noise source in the area during summer. Other noise sources include the loading and unloading of boats, general residential activity, occasional aircraft overflights, fishing boats, all-terrain vehicles, wind, and birds and other animals.

Typical noise levels during winter, when no humans reside in the area, were predicted to range from 28 to 32 dBA. Major noise sources during the winter include wind and some additional noise from aircraft overflights and animals.

Noise—Cook Inlet Drainages

TABLE 37-1
Typical Noise Sources and Equivalent dBA

Noise Source	Sound Level (dBA)	Subjective Impression
Recording studio	20	Just audible to very quiet
Soft whisper, library	30	Very quiet
Bedroom, bird calls	40	Very quiet to quiet
Light auto traffic (50 ft)	50	Quiet
Typical office	60	Quiet
Vacuum cleaner (10 ft)	70	Quiet to moderately loud
Garbage disposal (3 ft)	80	Moderately loud
Heavy truck / motorcycle (50 mph at 50 ft)	90	Moderately loud to very loud
Jet takeoff (2,000 ft)	100	Very loud
Float plane takeoff (100 ft)	110	Very loud to uncomfortably loud

Sources:

Beranek, Leo L. 1988. Noise and Vibration Control. Revised edition. Cambridge, Massachusetts: Institute of Noise Control Engineering.

U.S. Environmental Protection Agency, Office of Noise Abatement and Control. 1971. Transportation Noise and Noise from Equipment by Internal Combustion Engines. Washington DC. December.