

What is noise?

The terms “sound” and “noise” are almost interchangeable, but “noise” is unwanted sound. Noise (or sound) consists of tiny changes in air pressure sensed by our ears.

What are decibels or dB?

The decibel (dB) is used to describe the amount of noise. A change of 1 or 2 dB is difficult for most people to detect, while a 3 to 5 dB change is a small but noticeable change. A 10 dB change is a doubling or halving in loudness.

What are A-weighted decibels or dBA?

Some noises like whistles and sirens are high-pitched, while some noise is low-frequency such as heavy truck exhaust noise. People are most sensitive to sounds that are not very high-pitched or very low-pitched. A-weighting involves adjusting the decibel noise level based on the frequency or pitch of the noise, so that the noise level in dBA corresponds very closely to the loudness you hear.

How is noise measured?

Noise is measured using a sound level meter. Professional sound level meters are specialist instruments. It is possible to get an idea of noise levels using a smart-phone app, but these cannot be calibrated so the noise level measured on a phone may be different to that measured with a sound level meter.

How loud are common sounds?

The table lists examples of typical sounds and noises.

Noise Level (dBA)	Example	Description
130	Threshold of pain	Intolerable
120	Heavy rock concert	Extremely noisy
110	Grinding steel	
100	Loud car horn at 3 m	Very noisy
90	Construction site with pneumatic hammering	
80	Curbside of busy street	Loud
70	Loud radio or television	
60	Department store	Moderate to quiet
50	General office	
40	Inside private office	Quiet to very quiet
30	Inside bedroom	
20	Recording studio	Almost silent

What are the noise levels of some common sounds in Sechelt?

Sea Plane: 50-80 dBA, depending on height and distance

Seagulls / birds: 50-70 dBA, depending on distance

Tugs or boats in Porpoise Bay: 40-70 dBA, depending on distance

Lawnmowers: 80-92 dBA at 1m distance

Chainsaws: 90-105 dBA at 1m distance

What are the noise levels of Lehigh's operations in Sechelt?

Beach loadout: 67-71 dBA, at microphone by Sinku Drive, 40m from Lehigh equipment

Beach loadout: 60-62 dBA, Trail Bay shoreline by Totem Poles, 200m from Lehigh equipment

Ted Dixon soccer fields / Kwatamus Avenue (daytime): 48-52 dBA

Ted Dixon soccer fields / Kwatamus Avenue (night-time): 40-46 dBA

Why do I sometimes notice blasting?

Blasting is common in quarrying. It is used to break up hard rock so it can be dug out. In Sechelt our requirement for blasting varies depending on the hardness of the material we are digging out, and varies over time.

Blasting is undertaken by certified contractors. All blasts are controlled and monitored to ensure there is no risk to people or structures.

What noise studies has Lehigh done in Sechelt?

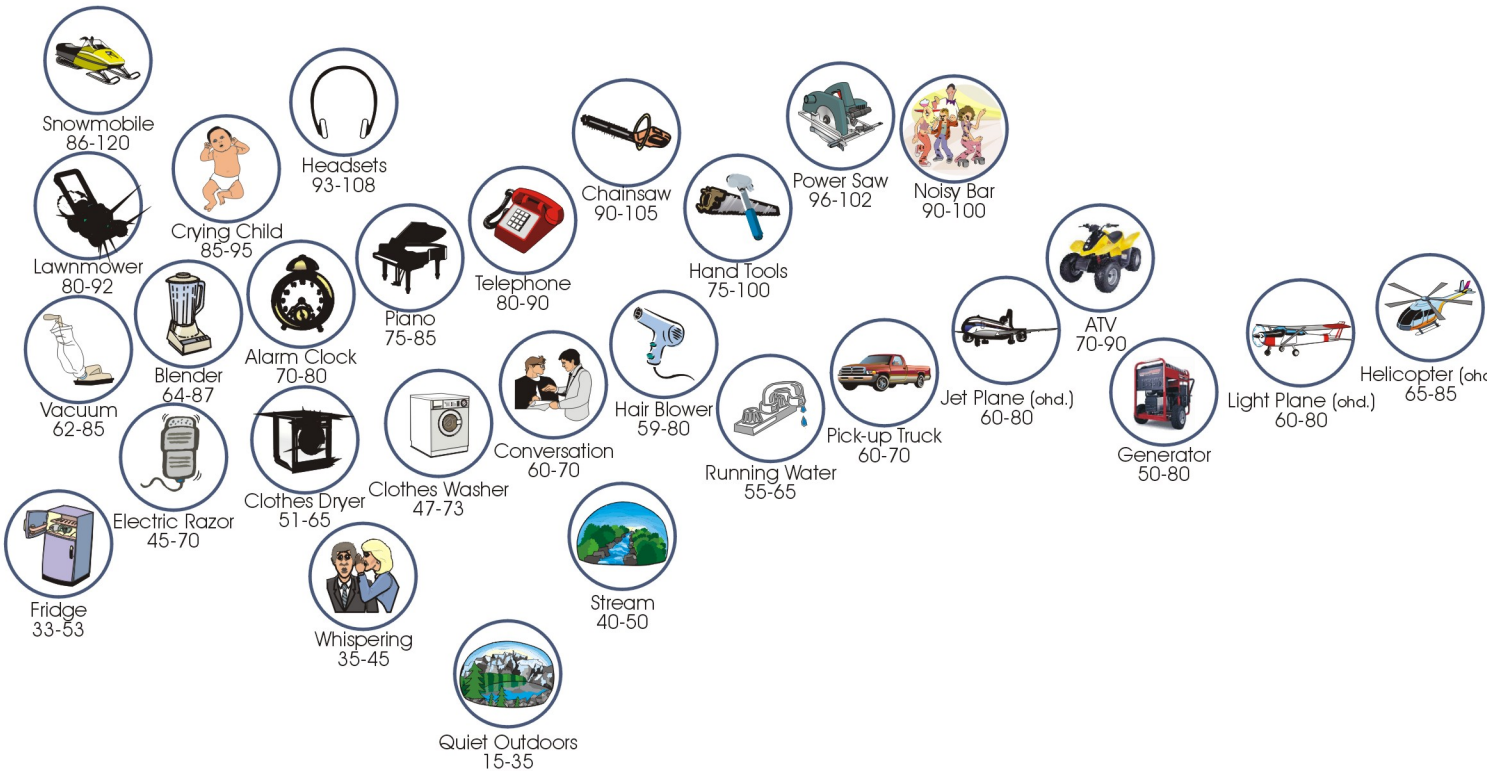
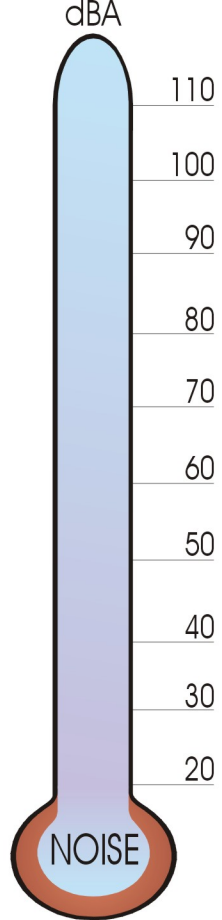
The first Lehigh Sechelt noise study was undertaken in 1986, as part of the mine planning process. This study helped plan the layout of the site and noise mounds to minimize noise.

In recent years, Lehigh has studied the noise from the beach loadout, and noise in residential areas. Other measurements and studies have examined the noise from particular pieces of equipment.

These studies have led to the introduction of a formal Noise Management Plan with noise goals and a framework for ongoing efforts to manage and mitigate noise.

Why monitor noise and how are the results being used?

Monitoring noise long-term enables comparison of long term-noise with the goals identified in the Noise Management Plan. Noise data will be used to check that noise control measures are working.



Distance of 1 metre