

Summary of Low Frequency Noise Measurements

Animal & Bylaw Services officers conducted measurements on 25 noise complaints regarding air conditioner units and household equipment between 2014 June and August in which noise measurement site visits were required.

The noise monitoring system is set up at the point of reception (where the sound is heard) and the sound is logged over 15 minutes of continuous running to obtain a valid measurement. Existing noise measurement involves a pre and post calibration of the noise measuring device to reduce instrumentation error and ensure reliable readings on an ongoing basis. Further, extraneous noise sources (e.g. planes, loud traffic, etc) which can impact measurement results and lead to an inconclusive reading are monitored and factored out of the measurement process, reducing noise contamination and leading to a more accurate reading.

Measurements were taken based on the C scale (dBC), in order to obtain noise readings that address vibration and low frequency noise. The C scale measurements ranged between 57.8 (dBC) and 75.8 (dBC). The following chart illustrates the source of noise, C scale measurements, impact on the caller and time of occurrence. Based on Administration's recommendation to amend the Community Standards Bylaw (CSB) to address low frequency noise (i.e. vibration) with a residential threshold of 70 dBC during the daytime and 60 dBC during the night-time, 8 of the 25 noise measurements were over the proposed threshold.

Findings from noise measurements taken:

No.	Type of Device	Noise level (dBC) Low Frequency Noise - Vibration	Impact	Occurrence
1	Air Conditioner	68.4	Loud/Irritability	Day
2	Air Conditioner	66.5	Disturbing at night	Night
3	Fan	66.8	Loud/Irritability	Day
4	Air Conditioner	65.7	Disturbing at night	Night
5	Air Conditioner	61.2	Vibration/Annoying	Day
6	Air Conditioner	64.5	Vibration/lack of sleep	Night
7	Air Conditioner	65.3	Loud/cannot open windows	Day
8	Air Conditioner	59.4	Loud/disturbing at night	Night
9	Air Conditioner	65.9	Disturbing at night	Night
10	Air Conditioner	65.3	Vibration/Irritability	Day
11	Air Conditioner	67.3	Loud/Irritability	Day
12	Air Conditioner	58.2	Loud/lack of sleep	Night
13	Air Conditioner	75.8	Disturbing at night	Night
14	Air Conditioner	59.1	Cannot open windows at night	Night
15	Air Conditioner	69.2	Vibration/Annoying	Day

No.	Type of Device	Noise level (dBC) Low Frequency Noise - Vibration	Impact	Occurrence
16	Air Conditioner	57.8	Loud/Annoying	Night
17	Fan	59.4	Vibration/Irritability	Night
18	Air Conditioner	65.9	Loud/Irritability	Day
19	Air Conditioner	68.5	Vibration/Annoying	Day
20	Air Conditioner	67.0	Lack of sleep	Night
21	Air Conditioner	60.5	Cannot enjoy outside space	Day
22	Fan	70.9	Vibration	Night
23	Air Conditioner	67.5	Vibration	Day
24	Air Conditioner	58.4	Lack of sleep	Night
25	Air Conditioner	66.8	Vibration/disturbing at night	Night