

Analysis of Concert Sound Measurements and CSRs in Summer 2016

As part of the Community Standards Bylaw Review, a concert sound study was conducted to understand sound level impacts on neighbouring communities. The goal was to determine whether a dBC limit could be set for outdoor concert bass levels to reduce nuisance impacts on nearby residents while continuing to enable an enjoyable concert experience. The table below summarizes sound measurements recorded at residences near four outdoor concert venues and corresponding service requests received from citizens. The analysis indicates that complaints began when bass sound levels exceeded 85 dBC and complaints increased as the decibel level increased.

Location and Event	Date	Sound Measurements		Customer Service Requests
		Sound Level at Residences	Near Outdoor Concert Venues	
Shaw Millennium Park Bluos Festival	July 30	- A-weighted scale: ranged from 58-59 dBA - C-weighted scale: ranged from 71-73 dBC	(all below 65 dBA)	None
	July 31	- A-weighted scale: ranged from 57-58 dBA - C-weighted scale: ranged from 60-71 dBC	(all below 65 dBA)	None
Prince's Island Park – Folk Festival	July 21	- A-weighted scale: ranged from 61-66 dBA - C-weighted scale: ranged from 80-84 dBC		None
	July 22	- A-weighted scale: ranged from 61-66 dBA - C-weighted scale: ranged from 81-86 dBC		6 complaints about loud music were received between 10:30 p.m. and 11:30 p.m. Of the 6 complaints 4 were received after 11:00 p.m.
Max Bell Centre Festival Grounds – Chasing Summer Music Festival	July 23	- A-weighted scale: ranged from 61-66 dBA - C-weighted scale: ranged from 77-79 dBC		None
	July 30	- A-weighted scale: ranged from 66-69 dBA - C-weighted scale: ranged from 84-87 dBC		18 complaints about loud music and bass noise were received between 8:00 p.m. and 11:00 p.m.
	July 31	- A-weighted scale: ranged from 73-77 dBA - C-weighted scale: ranged from 93-97 dBC		37 complaints about loud music and bass noise were received between noon and 11:30 p.m.
Fort Calgary – X-Fest	Sept. 3-4	- A-weighted scale: ranged from 73-77 dBA - C-weighted scale: ranged from 82-86 dBC		8 complaints (mainly about loud music not base noise) were received between noon and 10:30 p.m.

Note: A three decibel increase is noticeably louder, and 10 decibels is twice as loud.