

**I'm Sorry, I Can't Hear You!**

--- City of Denver

## **The NOISE CYCLE**

### **EVENT HAPPENS**

Festival Designation (80 dbA allowed)

No Active Notification to Residents

**It's LOUD! At my house!**

**Don't Like it?**

LEAVE until it's over

FUME and do nothing

COMPLAIN - 311, email, phone call

**It's OVER - NO VIOLATIONS Recorded**

**REPEAT through the Noisy Season**

# What is LOUD?

The noise produced by a rock concert on average measures between 108 and 114 decibels — about as loud as the inside of a steel mill and louder than a jackhammer. By comparison, a normal conversation is about 60 decibels, an interstate highway measures 76 decibels and a baby's cry comes in at 115 decibels. A noise begins to cause pain to the ear between 115 and 140 decibels, and prolonged exposure to noise in excess of 85 decibels can cause hearing loss.

--- Bangor Daily News, May 12, 2015

Talking loud is 80 dB

## Denver Law: Municipal Code Ch 36: Noise

### Sec. 36-1. Purpose.

This chapter is enacted to **protect, preserve and promote** the health, safety, welfare, peace and quiet for the citizens of the city through the reduction, control, and prevention of noise. This chapter establishes standards intended to eliminate and reduce unnecessary and excessive motor vehicle and community noises that are physically harmful and otherwise detrimental to individuals and the community in the enjoyment of life and property and to the conduct of business.

### Sec. 36-2. Definitions.

(10.5) **Festival**, for this (sic) purpose of this chapter, means cultural, athletic, educational, charitable, or civic events (including those with entertainment) provided the event does not exceed four days, is not part of a series of two (2) or more separate events in the same vicinity, **is open to the general public**, a permit for street closure or occupancy is obtained, and a license is, or licenses are, obtained to serve food, beverage, or liquor. ✓

### Sec. 36-4. Inspections.

(a) For the purpose of determining compliance with the provisions of this chapter, **the manager of environmental health and the chief of police** or their authorized representatives are hereby authorized to make inspections of all noise sources and to take measurements and tests whenever necessary to determine the quantity and character of noise.

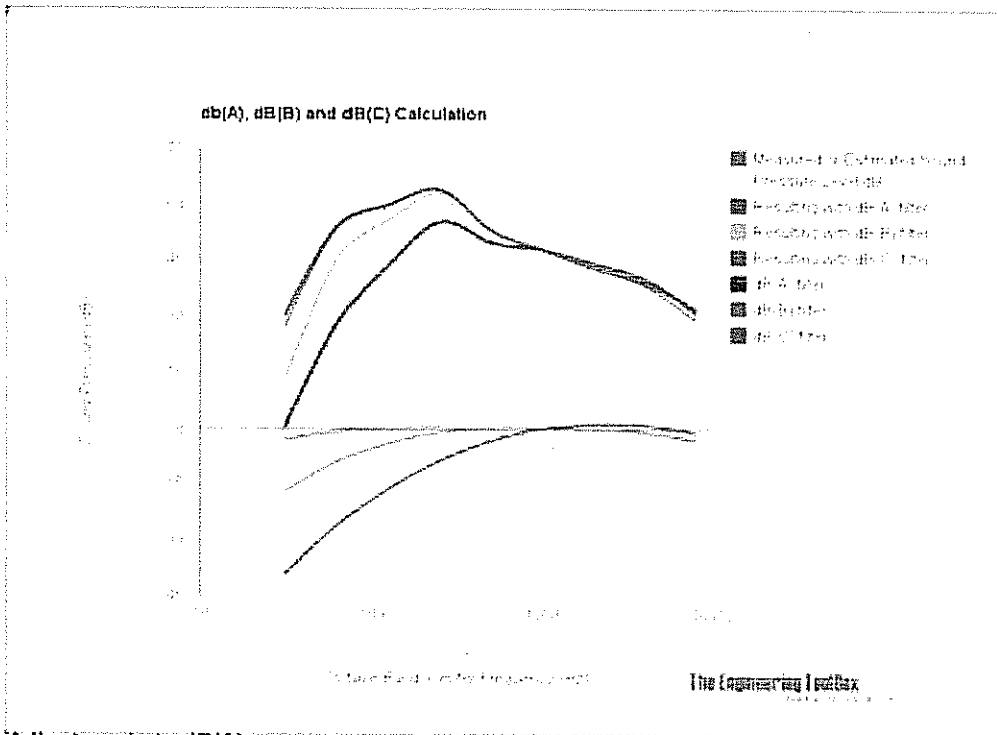
# Denver Law: Allowable Sound Pressure Levels in dBA

Source (who is making the noise)	Receptor (who is receiving the noise)							
	Residential		Commercial		Industrial		Public	
	7am-10pm	10pm-7am	7am-10pm	10pm-7am	7am-10pm	10pm-7am	7am-10pm	10pm-7am
Residential	55	50	65	60	80	75	75	70
Commercial	55	50	65	60	80	75	75	70
	(60)	(60)						
Industrial	55	50	65	60	80	75	75	70
	(65)	(65)						
Public	55	50	65	60	80	75	75	70
	(60)	(60)						
Festival	80*						???	

\* For festivals and associated activities, between the hours of 8:00 a.m. and 10 p.m. a duration restriction or modification of sound may not exceed a sound pressure level of 80 by (80 dBA) when measured from the nearest residential receptor premises.

*A band cutout bass - less nerve damage  
low frequencies travel further*

## dB(A) Measure Subtracts Sound



## Enforcement

Model is complaint-driven. Doesn't work for events

DPD does not "do noise" unless you're willing to file a criminal complaint (neighbor, repetitive)

No data collection or analysis (311)

dbA vs. dbC. Denver code does not include limits/measurements in the range that cause problems

## Citizen Engagement

Chive Fest (August, 2014) Riot Fest (Sept, 2014) - meetings, letters, complaints

INC Resolution on Revising Ordinance to include full spectrum measures (dbC) (Sept, 2014)

Meeting with EH, Mayor's representative (Nov, 2014)

--- No response.

2015: the Noise Cycle begins in City Park with the Colfax Marathon

## What is City Policy?

Noise from park events affects neighborhood residents

10+ year Denver policy to promote "activation" of parks

ABE policy encourages loud commercial activity, use of public assets (parks) for private profit

Office of Special Events created to facilitate events

Are parks venues?

## What about Office of Special Events?

Their role is to facilitate events

No role in policy or enforcement

Holding post-mortem meetings on an event-by-event basis to assist promoters in improving their events

Planning to produce an event calendar

## What could help?

Noise limits to reflect dBc range - requires City Council to change ordinance

311 to produce & post meaningful reports to encourage reporting/engagement

Active notification of events

Require event planners to pay for noise measurement & enforcement

Model noise planning & enforcement on zoning, a la Portland, Oregon

Vuvu Fest?

## Noise Sources and their Effects

Noise Source	Decibel Level	comment
Jet take-off (at 25 meters)	150	Eardrum rupture
Aircraft carrier deck	140	
Military jet aircraft take-off from aircraft carrier with afterburner at 50 ft (130 dB)	130	
Thunderclap, chain saw, Oxygen torch (121 dB)	120	Painful. 32 times as loud as 70 dB
Steel mill, auto horn at 1 meter, Turbo-fan aircraft at takeoff power at 200 ft (118 dB) Riveting machine (110 dB); live rock music (108 - 114 dB)	110	Average human pain threshold 16 times as loud as 70 dB.
Jet take-off (at 305 meters), use of outboard motor, power lawn mower, motorcycle, farm tractor, jackhammer, garbage truck, Boeing 707 or DC-8 aircraft at one nautical mile (6080 ft) before landing (106 dB); jet flyover at 1000 feet (103 dB); Bell J-2A helicopter at 100 ft (100 dB)	100	8 times as loud as 70 dB Serious damage possible in 6 hr exposure
Boeing 737 or DC-9 aircraft at one nautical mile (6080 ft) before landing (97 dB); power mower (96 dB); motorcycle at 25 ft (90 dB) Newspaper press (87 dB)	90	4 times as loud as 70 dB. Likely damage 6 hr exp
Garbage disposal, dishwasher, average factory, freight train (at 15 meters), Car wash at 20 ft (89 dB); propeller plane flyover at 1000 ft (88 dB); diesel truck 40 mph at 50 ft (84 dB); diesel train at 45 mph at 100 ft (83 dB); Food blender (88 dB); milling machine (85 dB); garbage disposal (80 dB)	80	2 times as loud as 70 dB. Possible damage in 6 hr exposure.
Passenger car at 85 mph at 25 ft (77 dB); freeway at 50 ft from pavement edge 10 a.m. (76 dB); Living room music (76 dB); radio or TV-audio, vacuum cleaner (70 dB)	70	Arbitrary base of comparison. Upper 70s are annoyingly loud to some people.
Conversation in restaurant, office, background music, Air conditioning unit at 100 ft	60	Half as loud as 70 dB Fairly quiet
Quiet suburb, conversation at home, Large electrical transformers at 100 ft	50	One-fourth as loud as 70 dB.
Library, bird calls (44 dB); lowest limit of urban ambient sound	40	One-eighth as loud as 70 dB
Quiet rural area	30	One-sixteenth as loud as 70 dB. Very Quiet
Whisper, rustling leaves	20	
Breathing	10	Barely audible