



**To the Mayor and Members of the City Council**

**February 21, 2023**

Page 1 of 1

**SUBJECT: NOISE ORDINANCE: USE OF DECIBEL METERS AND MUFFLER ENFORCEMENT**

This Informal Report provides an update on the Fort Worth Police Department's use of decibel meters to enforce the City's noise ordinance, including the enforcement of violations from loud mufflers. The City Council had requested information about the make and model of each decibel meter and had inquired about the possibility of officers and residents using a mobile app for similar purposes.

The Police Department's inventory includes three different professional sound level/decibel meter models: (a) Coleman Sound Level Meters Model #WT85, (b) Quest Technologies Model #2200 Type 2, and (c) Piccolo SLM Model #SLM-P3. The decibel meters in our inventory are required to be calibrated yearly. Due to the age of some of our decibel meters, we ordered and received Triplett Sound Level Meters to replace the older inventory. This will allow us the ability to calibrate the decibel meters on site instead of sending them back to the manufacturer. The older models had to be sent in to be calibrated. The decibel meters used by Police must comply with acoustical and electrical tests to meet national and internal standards, such as the American National Standards Institute (ANSI) S1.4-2014. All decibel meters have met the required standards and have been calibrated and/or had been replaced by the end of the February 2023.

At its January 24 work session, the City Council inquired about a smart phone application for decibel meters, NIOSH Sound Level Meter App, as a possible solution to expand the number of decibel meters in the field for officers and to give residents the ability to use the smartphone application to file complaints. The NIOSH Sound Level Meter App was developed by the National Institute for Occupational Safety and Health and EA Lab, Inc, to measure sound levels in the workplace and help reduce occupational noise-induced hearing loss. The app includes a disclaimer stating that the app does not comply with any national standard and is not meant to replace professional instruments. The creators of the app recommend using an external microphone that can be calibrated.

The data collected from both the decibel meters currently used by the Police and the app would be considered to be scientific evidence. Before scientific evidence is admissible in court, it must meet three reliability criteria as stated in *Kelly v. State*, 824 S.W.2d 568 (Tex. Crim. App. 1992). First, the underlying scientific theory must be valid. Second, the technique applying the theory must be valid. Lastly, the technique must have been properly applied on the occasion in question. Furthermore, there are factors the court will consider in determining whether the reliability factors have been satisfied. It is likely, given the statement by the creators of the app that the primary use is to measure noise levels in the workplace environment and the disclaimers provided that the app is not meant to replace professional sound level instruments, that the app would not meet the reliability criteria stated in the Kelly case and therefore would not be admissible as evidence in the prosecution of a citation for a noise violation.

Lastly, there was a request for information about the prohibition or enforcement of vehicles with loud mufflers. The current city ordinance allows for enforcement a multitude of issues from musical instruments, construction work during certain hours, animals and others. Fort Worth City Ordinance Sections 23-8, Noise, d(2)f identifies the following class of violations: "f. *Operation of vehicles*. The running of any automobile, motorcycle or vehicle so out of repair, so loaded or in such manner as to create loud or unnecessary grating, grinding, jarring or rattling noise or vibrations." The Fort Worth City Ordinance violations can be enforced by the Police Department and Code Compliance Department. As with other noise complaints, the challenge is to have officers at the location when a violation occurs. Due to the mobility of vehicles, locating the violators after the call occurs can be problematic. However, even though this issue is difficult to address, the Fort Worth Police Department issued 39 citations in 2022 for defective mufflers causing excessive noise.

If you have any questions concerning this information, please contact Executive Assistant Chief Robert Alldredge at 817-392-4131 or [robert.alldredge@fortworthtexas.gov](mailto:robert.alldredge@fortworthtexas.gov).

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