

Vehicle Noise Enforcement Pilot Program - Results and Next Steps

Recommendation

That the February 17, 2021, Citizen Services report CR_7275, be received for information.

Previous Council/Committee Action

At the May 22, 2019, Community and Public Services Committee meeting, the following motion was passed:

That Administration provide a report on the results of a vehicle noise enforcement pilot program and potential next steps for enforcement of the vehicle noise provisions of Community Standards Bylaw 14600 and the Alberta Traffic Safety Act.

Executive Summary

In 2020, Administration continued its vehicle noise monitoring pilot program to collect additional data on the use of specialized noise monitoring equipment and vehicle noise trends. The 2020 pilot continued the previous pilots focused on-street enforcement for vehicle noise related matters beginning in April 2020. Project TENSOR (Traffic Enforcement Noise/Speed Offence Reduction), a partnership between the Edmonton Police Service and City of Edmonton, also ran from May to September 2020. In addition, in July 2020, Administration initiated a review of noise monitoring technologies in high complaint locations to inform deployment and assist with enforcement activities.

Report

Beginning in 2019, Administration continued a previously established vehicle noise monitoring pilot program to collect additional data about seasonality and times of day for vehicle noise throughout the spring and summer. The program was planned in two phases. In Phase One, which ran during summer 2019, Administration and the Edmonton Police Service conducted enforcement as part of the revised approach and worked collaboratively on a number of joint operations. As a result of the enforcement initiatives in 2019, the Edmonton Police Service reported issuing 135 violation tickets, including tickets relating to motorcycle noise, excessive noise or modified exhaust

systems. Administration focused on similar offences, with the exclusion of motorcycle noise, and issued 82 violation tickets and 33 warning notices.

Phase two, conducted in 2020, was divided into three distinct focus areas and enforcement approaches:

1. Administration initiated proactive vehicle noise enforcement from April to October of 2020.
2. Administration and the Edmonton Police Service partnered to address vehicle noise and other traffic safety concerns throughout the duration of Project TENSOR.
3. Administration implemented noise monitoring technologies to assist the deployment of resources and enforcement efforts.

City of Edmonton Enforcement

Previously, Administration had not performed moving vehicle enforcement duties related to noisy vehicles as the Edmonton Police Service was solely responsible for this function. Since the 2019 noise enforcement pilot program began, peace officers have conducted enforcement efforts on vehicles causing excessively loud or unnecessary noise, excluding motorcycles. During this time, peace officers have focused on addressing vehicle equipment-related concerns. Vehicles with modified and/or after-market exhaust systems and widened exhaust outlets are both sought and targeted for enforcement under the *Traffic Safety Act*.

In 2020, peace officers issued a total of 138 violation tickets, 131 warnings for noise-related matters and an additional 109 notices to repair vehicle defects. From July to September 2020, peace officers conducted 31 operations focused on noise enforcement, including involvement with Project TENSOR. Throughout the duration of the pilot program, peace officers monitored more than 40 locations for excessive vehicle noise based on complaint information.

Edmonton Police Service Enforcement

The Edmonton Police Service initiated Project TENSOR in response to an increase in traffic safety-related complaints along with vehicle noise concerns. The Edmonton Police Service partnered with Administration for the project. Joint operations were conducted on 12 occasions in 2020, focusing on violations surrounding speed, noise, occupant restraints, and general vehicle documentation. Eight hot spot locations were identified using information from public complaints and available data. The Edmonton Police Service reported a total of 1,684 charges issued through Project TENSOR including charges issued by peace officers. Of those charges, 335 violation tickets were specific to noise-related offences as listed in the Community Standards Bylaw or the *Traffic Safety Act*. The Edmonton Police Service reported that approximately 680 vehicle noise complaints were received in 2020.

Technology Pilot

From July to September 2020, Administration hired a vendor to supply noise monitoring technologies. The noise monitoring equipment was installed in nine locations, based on existing infrastructure required for installation and those locations with high complaint volumes.

In total, three static and one mobile system were used for the pilot program and were rotated through the locations. The equipment was capable of detecting and recording audio levels and video images when specific noise levels were exceeded. Based on past experiences and results of the previous noise monitoring pilots, Administration learned that many commercial vehicles, such as large trucks and buses, had previously triggered similar technologies that measured sounds at lower thresholds. Administration, the Edmonton Police Service and the noise monitoring equipment vendor discussed the potential noise level as a threshold for triggering the violations and decided that 95 decibels would bring the most meaningful results.

The equipment recorded noise 24 hours a day. Events exceeding the threshold were recorded and data was sent to peace officers for review. Administration's objective was to identify specific times when incidents were occurring and use those recordings in order to make data-informed decisions on the deployment of enforcement resources.

Peace officers were deployed to these locations to verify the information obtained from the equipment, identify offending vehicles in real-time, disrupt driver behaviour, and take any necessary enforcement action. Results were mixed over the course of the pilot; a single noise incident resulted in enforcement action being taken, utilizing a combination of the enforcement officer's observation along with video and audio recording of the infraction. Approximately 150 hours were spent at or near these locations for targeted enforcement (Attachment 1).

Challenges

- The static equipment had limited deterrent value without changing legislation and resourcing similar to the photo radar program.
- The mobile noise monitoring unit was limited in its use and application given the wide-ranging geographical nature of excessive noise complaints.
- The model of using the mobile unit and deploying staff in close proximity was resource-intensive and had limited success in identifying any significant number of offending vehicles.
- Downtime of equipment due to vandalism and moving of equipment increased pilot costs.
- The need to exclude certain sounds or noise levels, such as sirens from emergency vehicles, was done manually and was labour intensive.

- Ultimately, the automated technology was not able to discern between sources of noise and could not identify individual offending vehicles to a degree that would meet the evidentiary test required for court purposes.

Learnings

- The data collected did provide information on locations and times where high incidents of noise events occurred.
- Anecdotal evidence suggests that the presence of the equipment, additional enforcement and the overall pilot initiative had a positive impact.
- The pilot provided an opportunity to explore the efficacy of automated noise enforcement.
- A review of recorded incidents showed a strong correlation between excessive noise and speed.
- The methodology used to combine technology with human resources and joint force initiatives increased collaboration and further solidified the relationship between the Edmonton Police Service and Administration.
- There were improved relationships and information sharing with other enforcement groups throughout the region.

Next Steps

Using the information and knowledge gathered from the recent pilot to inform future plans and approaches, Administration will:

- include ongoing excessive vehicle noise enforcement in the operational mandate of peace officers and will continue to coordinate and support joint operations with the Edmonton Police Service.
- add enforcement of vehicle equipment related offences to the operational mandate of peace officers, with a focus on modified and/or after-market exhaust systems and widened exhaust outlets.
- use complaint data from citizens to identify locations throughout the city for additional enforcement response.
- pursue individual and industry education and speed reduction options.
- explore new and cost-effective technology to gather data for effective and efficient resource deployment.
- review approaches, tactics, or models from other municipalities to reduce the impact of excessive vehicle noise will continue.

Budget/Financial Implications

The 2020 pilot cost approximately \$192,000 for equipment rental, installations, monitoring, maintenance and software use. Enforcement personnel costs were absorbed within existing budgets. Continuing this approach for noise enforcement would require new funding for the capital purchase of the equipment and for operational impacts.

Corporate Outcomes and Performance Management

Corporate Outcome(s): Edmonton is a safe city.			
Outcome(s)	Measure(s)	Result(s)	Target(s)
The City of Edmonton's vehicle noise abatement bylaw reflects standards that protect Edmontonians from the hazards of noise pollution	Number of vehicle noise infraction tickets issued	2020: 138 2019: 72	Reduction of complaints via targeted enforcement

Attachments

1. 2020 Noise Enforcement Pilot Data

Others Reviewing this Report

- G. Cebryk, Deputy City Manager, City Operations
- C. Owen, Deputy City Manager, Communications and Engagement
- M. Persson, Chief Financial Officer and Deputy City Manager, Financial and Corporate Services
- B. Andriachuk, City Solicitor, Office of the City Manager