

Attachment H: Updated Jurisdictional Research on Automated Noise Radar

The table below provides an update on research conducted on automated noise radar as part of [2022.EC31.4](#) (see [here](#)).

Municipality	Summary	Equipment	Cost	Decibel (dB) limit	Enforcement	Results and Next Steps	Updates Since 2022
Edmonton, Canada	Pilot with several phases 2016 to 2020	Various pieces of equipment from one vendor. Main equipment was sound level meter with high resolution cameras	2020 pilot cost \$192,000 CAD for equipment rentals, installations, monitoring, maintenance, and software use	+85 dB	Community Standards Peace Officers enforce motor vehicle noise and are also capable of enforcing provincial legislation. These Officers supplement the police and have the authority to pull over vehicles The bylaw fine schedule for such an offence is \$1000, and it doubles for a subsequent offence	Continuing joint operations with Edmonton Police Services, which have been found to be successful in the past to educate and charge residents in contravention of noise and traffic provincial fines	No longer using equipment as it could not accurately determine offending vehicle Continue relying on traditional enforcement methods, including on-the-spots tickets or the witness statement from process until the Province of Alberta implements regulatory changes for automated noise enforcement
New York City, USA	Began piloting cameras in late 2021	Various pieces of equipment from one vendor	\$30,000 USD per system and buy \$5,000 for software.	+85 dB at 50 feet away	Organized by the City's Department of Environmental Protection (DEP)	The Council has approved the introduction of a photo noise	DEP has authority to review New York State plates; noise cameras do not

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	So far has 10 cameras and 1 pending deployment	Main equipment was sound level meter with high resolution cameras			<p>Manual review is required to determine the source, with one staff member assigned per two cameras for monitoring. Follow-up inspections are no longer necessary; tickets are issued promptly. Camera with halo system does put a red dot on the vehicle assisting enforcement</p> <p>The penalties for an excessively loud muffler or exhaust on a light-duty vehicle are: \$150–\$525 for a first offense; \$300–\$1,050 for a second offense; and \$450–\$1,575 for a third or subsequent offense</p>	violation monitoring device program for motor vehicles in December 2023, requiring there to be no less than 5 noise cameras in each borough	<p>need state authorization</p> <p>Technology has improved – with a better ability to identify highest noise source, better character recognition, and can be used to determine or different aspects of noise (music from vehicle; idling)</p> <p>NYC Noise code has a decibel limit for vehicles</p> <p>Elected officials can request camera locations but the final decision on placement rests with the DEP</p> <p>The camera has limitations regarding location, ideally suited for two lanes away from highways due to</p>

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							equipment sensitivity and it performs optimally with 2-3 lanes. There is an investigation into deploying multiple systems on larger roads
Miami Beach, USA	Pilot began in late 2022 Three cameras have been placed in key locations of South Beach, Mid Beach and North Beach	Using automated noise cameras from 24 Acoustics	Each camera ranges in price from \$25,000 USD to 30,000 USD to purchase	N/A	Footage captured by the cameras will support data validation and can be used as the basis for issuing warnings However, the law does not give the city the authority to issue tickets for violations	N/A	Miami Beach recently passed a resolution urging the Florida legislature to modify State law to allow cities to issue traffic citations for illegal vehicle noise based on evidence from noise camera technology Anticipating receiving three upgraded next generation noise meter cameras that will offer enhanced features and automation

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Paris, France	Pilot began in 2022	Developed by a non-profit Phase 1 began in early 2022, focusing on road tests for data monitoring. Phase 2 will evaluate the accuracy of	N/A	+85 dB	Under existing legislation authorities can sanction the owners of noisy vehicles, but police need to have the necessary equipment and to catch the driver in the act	Planning to issue fines using automated noise radar from early 2023 Fines would be up to approximately \$180 CAD	Based on one news source, Paris might still be in Phase 1 of the pilot

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		identifying the offending vehicle			The new system is anticipated to function like a speed radar, which could issue automated fines		
London, UK Boroughs of Kensington and Chelsea	Pilot began in 2020	Same equipment as NYC 4 cameras installed to date	Cost per unit is approximately \$25,000 CAD	+84 dB	Waste and Street Enforcement Team manually assess footage captured by noise cameras rather than using AI owing to UK legislation and have live access to license information Approximately \$160 fine or a maximum fine of \$1600 upon conviction	Between September 2020 and October 2023, 703 Fixed Penalty Notices (FPNs) have been issued The 5th camera will be installed soon, along with ongoing research to address challenges (e.g., accurate measurement in busier traffic conditions)	Currently testing more advanced models of noise cameras, which are expected to operate more efficiently and reduce the time staff spend reviewing footage compared to earlier versions

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Knoxville, USA	Piloting one camera began in February 2022	Same equipment as Edmonton, NYC, London One camera has been installed	Cost per camera is approximately \$35,000 USD	+82 dB	Using the cameras for data collection, informing ground officers about problem areas/times for noise violations	Piloting tech for a period before determining next steps	Continuing to explore different options for noise enforcement and mitigation Meanwhile, the city is initiating a pilot to restrict vehicle access on the busiest downtown street during weekends, aiming to assess the efficacy of noise mitigation measures
Taiwan	Began in 2020	Equipment jointly developed by the Taipei Department of Environmental Protection and a local firm	Each device costs \$34,000 CAD	+84 dB	Violators must attend in-person inspections and make improvements within a prescribed time frame in compliance with the requests from the local environmental protection bureau By October 2021, nearly 700 tickets for vehicle noise have been issued	Aim to deploy 100 cameras by 2027 across the country The initiative has won widespread support from the public	N/A

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					through the noise camera initiative		
Abu Dhabi	Began in 2016	Proprietary equipment developed by Abu Dhabi Police includes a sound intensity sensor and an advanced camera. The system scans license plates, and drivers are automatically fined	N/A	+95 dB	Enforced by Abu Dhabi Police, with primary focuses on residential areas, also near hospitals, mosques, and educational institutions Fine is approximately \$680 CAD and includes demerit points	N/A	N/A

Additional Notes:

- City of Chicago: In September 2023, the Chicago City Council proposed a new ordinance titled the "[Vehicle Noise Reduction Pilot Program](#)." The aim is to amend the existing municipal code, establishing an "automated compliance enforcement system" targeting vehicles with excessively loud mufflers. If enacted, the program could begin on January 1, 2024, and continue until January 1, 2028, utilizing noise cameras in a specific area to automatically issue tickets. The ordinance does not specify a defined noise limit, such as an acceptable decibel ceiling.
- California: In 2022, [Senate Bill 1079](#) proposing automated noise pollution enforcement was introduced. If signed by the Governor, this new legislation would utilize automated sensors and cameras to enforce decibel limits on cars and motorcycles. There is no updated information found in 2023 regarding this initiative.