



INFORMATION REPORT

TO:	Mayor and Members Board of Health
COMMITTEE DATE:	April 16, 2018
SUBJECT/REPORT NO:	Reduction of Airborne Particulates in Hamilton (BOH18018) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Matt Lawson (905) 546-2424, Ext. 5823
SUBMITTED BY & SIGNATURE:	Kevin McDonald Director, Public Health Services - Healthy Environments Division Healthy and Safe Communities Department

Council Direction:

The Board of Health, at its meeting of July 13, 2017, approved the following:

- (b) That staff consult with Environment Hamilton, Clean Air Hamilton and the Ontario Ministry of Environment and Climate Change to review the Streets By-law 86-77, and develop a better legal instrument as well as other recommendations, to reduce airborne particulate in Hamilton and report back to the Board of Health;
- (c) That Street By-law 86-77 be proactively enforced to discourage track-out violations in the industrial core, and;
- (d) That staff be directed to enhance municipal Street sweeping in the industrial core.

The following report provides information related to the above motion.

Information:

By-law related to airborne particulates

Healthy Environments Division staff have actively engaged and consulted with members of Environment Hamilton, Clean Air Hamilton (CAH) and the Ontario Ministry of

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Environment and Climate Change (MOECC) with respect to developing a legal tool, i.e., a by-law to help reduce airborne particulate in Hamilton.

A working group of Clean Air Hamilton (CAH) called the Fugitive Dust working group has been established that includes members of Environment Hamilton and the (MOECC). The objectives of CAH's working group are to:

- Improve levels of airborne particulate matter throughout the City, particularly in identified neighbourhoods with elevated levels, and;
- Effect behavioural changes on the parts of citizens and businesses when engaging in activities that may generate particulate matter.

To date, the Fugitive Dust working group has delivered workshops to construction companies operating in Hamilton on the subject of dust management, and has prepared a mailer containing information on requirements from all levels of government and resources available to meet these requirements. The mailer is intended to be distributed to construction and demolition companies operating in Hamilton before the beginning of the 2018 construction season.

The CAH working group has also been active in providing input toward a draft by-law. Additionally, Healthy Environments Division staff has met with staff from both Legal Services and Municipal Law Enforcement to discuss the development of a new by-law to assist in the control of airborne particulates in Hamilton. Staff is planning to bring back a recommendation report to the Board of Health (BOH) in Q1/2019 for consideration, once the new BOH has been formed. In the meantime, Healthy Environments Division staff will continue to consult with community stakeholders with respect to the scope of the proposed by-law.

Enforcement of 'Track-out' in the Industrial Core

Healthy Environments Division staff has consulted with Legal Services staff about proactive enforcement of 'track-out' onto Hamilton streets. A plan has been developed that identifies areas within the industrial core that have had historically recurring instances of track-out, such that active surveillance of track-out offences will be performed on a weekly basis.

Healthy Environments Division staff has been performing active surveillance of the industrial core to identify if any roadway access points have appeared to be non-compliant with the existing 'Streets By-law' with respect to track-out. In the event that a property is found to be non-compliant with the by-law, a letter is sent to the owner of the property in question and they are advised of the prohibitions relating to track-out

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contained within the Streets By-law, and that charges may result if additional instances of non-compliance are observed. To date, no charges have been laid.

Street Sweeping Enhancements

The City's current fleet of 17 street sweeping units are manufactured by Tymco, which are an efficient unit at collecting small particulates from the roadway. Tymco street sweepers hold an Environmental Technology Verification (ETV) validation from the International Organization for Standardization (ISO). The ETV verification validates the manufacturer's environmental performance claims about the street sweeper's ability to collect particles as small as 0.3 microns in size.

Healthy Environments Division staff has met with staff from Public Works (Roads) to discuss options for how street sweeping processes could be enhanced to assist in lowering airborne particulates in the industrial core. Upon learning about the motion approved at the July 2017 BOH meeting, Public Works staff voluntarily made the following enhancements to street sweeping processes:

- 1. Timing.** In past practice, street sweepers were operational during non-daytime hours when traffic was expected to be lower volume in the industrial core. PW staff has moved to operate street sweepers at times that now include daytime hours, which will assist in reducing particulates associated with daytime traffic.
- 2. Frequency.** Most streets within Hamilton receive street sweeping two times per month. Since November/2017, PW staff has increased the street sweeping frequency in the industrial core to three times per month, which increases sweeper operation time on the road by 33%.
- 3. Flushing.** PW crews can flush water along stretches of Nikola Tesla Boulevard and Burlington Street, as needed, in order to reduce airborne particulate.

All of the above enhancements to road maintenance are expected to help lower the amount of airborne particulate circulating within the industrial core of the City.

Sweeping Program Pilot Lessons

- 1.** Due to the increase of these Industrial Core enhancements it has impacted other sections of the sweeping program within the Downtown Core. As a result sweeping frequency of some main arterial/collector roads such as King Street and Cannon Street are being impacted as the result of the redeployment of existing sweeper inventory and required staff to operate. The impacts of this service level adjustment are being monitored regularly.

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2. Increase wear and tear on equipment due to volume/type of debris in Industrial core.
3. During the winter season the sweeping program is hindered between first snowfall until early spring. If warm temperatures allow then sweeping may be completed during winter but no water can be used due to the below freezing temperature.
4. Due to decrease of sweeping during winter months, there is an increase in the accumulation of debris causing more effort to get back to normal levels.

Staff is monitoring the overall impact to the sweeping program. Should the minor enhancements undertaken to date be considered inadequate or diversion of equipment starts to negatively impact other areas, it may be necessary to consider expansion of the sweeper fleet. This expansion could include the purchase of an additional sweeper at approximately \$350,000 and two full-time operators to run the enhanced program. A Business Case Enhancement could be considered for inclusion in the 2019 operating and capital budgets. Contracted service is not recommended as the sweepers on the City's hired equipment list do not have the same environmental equipment for particulates.

Appendices/Schedules Attached:

Not Applicable.