



# INFORMATION REPORT

<b>TO:</b>	Mayor and Members Board of Health
<b>COMMITTEE DATE:</b>	July 10, 2014
<b>SUBJECT/REPORT NO:</b>	Streets By-law Review and Options for Dust Control - BOH14018 (City Wide) (Outstanding Business Item "A")
<b>WARD(S) AFFECTED:</b>	City Wide
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## Council Direction:

At the September 2012 Board of Health meeting, Public Health Services (PHS) was directed to review the Streets By-law (No. 86-077) and develop a better legal instrument to reduce airborne particulate in Hamilton.

## Information:

There is no one stand-alone by-law, or other legal tool, available to a municipality that can reduce airborne particulate matter to a level where no other effort is required. Air pollution in the City of Hamilton comes from multiple sources, and accordingly, multiple actions are needed to lower pollution levels, including particulate matter (PM). Although regulation through by-law can be a useful tool, other potential tools to reduce airborne PM could include:

- Traffic Control Policies and Practices
- Municipal Zoning Policies
- Development Approval Permits
- Subdivision Development Agreements
- Demolition Approval Permits
- Application of Best Practices for Dust Control

A comprehensive air quality control plan which utilizes the concept of an 'airshed' can be a very valuable tool for achieving improved air quality. An airshed is generally described as an area where the movement of air can be hindered by local geographical features and by weather conditions. In any airshed there are multiple sources of air pollution generated at various locations, times and concentrations. Please find further background information in Appendix A, McMaster Institute for Environmental Health report *REVIEW OF CITY OF HAMILTON 'STREETS' BY LAW #86-077 & A Literature and Policy Review of Available Municipal Air Quality Enforcement Tools*.

### **Streets By-law Review**

The primary directive of the by-law is largely 'aesthetic' focusing on the visual condition of the street or road with a secondary focus on the 'proper and unobstructed' flow of public traffic (vehicle and pedestrian). The existing by-law was created prior to amalgamation and refers to many activities from littering, filth, distributing handbills to animal carcasses. Several sections of the cumbersome and largely-dated by-law will be (or have already been) repealed, re-written, and replaced by newer and more appropriate direction and by-laws.

The sections most likely to address any secondary health impact deal with 'Fouling' (Sections 9 & 14) either from building or other activities which occur upon a 'street' or 'highway'. Within both of these sections Municipal Law Enforcement (MLE) has the right to 'force' compliance with the by-law and/or rectify the issue and bill the expense to the owner or occupant. Tracked materials from building sites and other human activities have the potential to 'dry' and become airborne. This could have a potential health impact through inhalation of particulate. Consequently, MLE has developed information for the City website which focuses only on 'mud tracking'. The 'Caring for Our City Streets' posting informs the public mud tracking is illegal and describes the process for lodging a complaint.

At present, MLE has primary responsibility for enforcement of the by-law. Enforcement is passive since by-law investigations are complaint driven. By-law officers respond to complaints utilizing education as their primary tool followed by enforcement by issuing tickets. If an MLE Officer investigates and finds a violation, the Officer will ensure the operator is aware of the by-law and requirements to keep the street clean. If there are subsequent violations the Officer will issue a Fee for Inspection cost and may issue a ticket and/or court actions.

A number of corporate operations activities are exempt from the by-law, including the application of sand, salt, a mixture of sand and salt or similar substance to the highway for the purpose of highway or winter highway maintenance, waste collection and highway construction.

The Streets By-law generates an average of 205 complaints per year (see Table 1). As a comparison, the City of Hamilton Noise Control By-law averages over 2,000 complaints in any given year. Furthermore, the number of complaints related to the Streets By-law which cannot be dealt with through education alone and would require a ticket being issued by an officer, is much smaller. Based upon discussions with MLE staff, it appears that tickets or other charges being laid under the Streets by-law as a result of mud-tracking violations rarely occur due to a progressive enforcement approach to the by-law. Additionally, existing data systems don't allow a simple reporting process for identifying where complaints related to Streets By-law are coming from within the City.

**Table 1. Streets By-law related complaints**

<b>Year</b>	<b># of Complaints</b>
2010	171
2011	211
2012	185
2013	251

In its current form, it appears that the Streets By-law is largely underused. It has little value as a health protection tool for the reduction of PM. Many municipalities have advocated Best Practices for activities which focus on reduction of PM and improving air quality. Ultimately, health concerns would be better served through an array of Municipal tools and Best Practices which are formed from the latest scientific knowledge and are more effective in reducing levels of airborne PM.

#### **Work to Date on Reducing Particulate Matter**

City of Hamilton staff has been working to develop alternate strategies to improve policies and processes that can impact the generation and re-suspension of PM, including the following:

- Public Works (PW) has taken the lead on an internal policy review of the Streets By-Law sections that address aesthetic issues, (i.e., lamp posts, bike racks, flower planters and other considerations that are not directly related to traffic in the street). In addition, PW has coordinated a Working Group between a number of corporate departments, including MLE and PHS to review sections of the by-law for this purpose.
- PW brought forward a report (PW13055) recommending a budget enhancement for street sweeping activities to control PM in Hamilton's industrial core. This recommendation was supported by the Air Quality Task Force Action Plan released in December, 2013. Council rejected the recommendation in March/2014 during the 2014 budget enhancement deliberations.

- Planning and Economic Development (PED) staff has included dust mitigation requirements within the *Registered Subdivision Agreement* between the City and developers. The subdivision agreement deals with mud tracking and dust control, and includes a process for notifying the developer and the City of any complaints that may require attention.
- PED staff circulates various land-use applications and plans within the City for review and comments regarding any expected impact of the proposed project or development. PHS staff, in turn, review these applications to identify projects that may require dust mitigation plans to be implemented (e.g., demolition projects), and provide on-site inspection and consultation with the project personnel to ensure that generation of PM is minimized.
- PHS has been collaborating with other Ontario health units to further describe the impact the built environment can have on the public's health. As an example, Hamilton Associate Medical Officer of Health, Dr. Ninh Tran, recently collaborated on a report supporting public transport as part of a larger plan for healthy built form and accessibility which aims to ultimately decrease a number of chronic diseases. A report to BOH was received in June, 2014 (BOH14017).
- Consultations have begun with the Town of Oakville regarding the development of their Health Protection Air Quality By-law and its indicators of success, as well as its potential as a tool for the City of Hamilton. PED is planning on bringing a report on the Oakville by-law to Council later in 2014.

### **Additional Evidence-Based Control Options**

Evidence suggests a municipality must first inventory major pollutant sources, review available resources, and prioritize a set of strategic practices to improve local air quality.

Incorporating a health-perspective focused on air quality concerns within the Community Official Plan through consultation with PHS will allow for a comprehensive land use perspective balancing both economic and health concerns for the community. Given the wide range of comprehensive and scientific evidence as to the health consequences of PM (in particular fine PM), Ozone, and other pollutant substances, the role of PHS in review and application of these scientific findings is critical. Land-Use Planning can influence many of the factors which contribute to poor air quality by reducing our dependence on single occupancy vehicle travel.

Below is a list of possible tools for a municipality to utilize in the creation of an air quality plan:

- Zoning can be used strategically to protect 'sensitive' or 'vulnerable' areas which are subject to poor dispersion and poor air quality. It can also be used to protect places where more vulnerable populations will likely be, such as hospitals and schools. Zoning can be used to promote developments that include mixed use (residential and commercial), increasing walkability of neighbourhoods.

- Development Approval Permits (DAP's) are a process tool whereby local government requires a developer to provide information regarding the anticipated impact of the proposed activity or development on the surrounding community. Such information could include details on transportation patterns, proximity to public facilities (such as schools or parks) and the protection of natural environments.
- The use of traffic 'evaporation' schemes has been highly successful in European cities for creating 'car free' spaces and re-energizing communities. For example, charging tolls for entry into municipal boundaries can shift transport choices towards public transit, reducing smog. Fees recovered can be re-invested in improving public transit.
- Construction sites can be required to conduct risk assessments and institute mitigation and remediation Best Practices to reduce PM generation and dispersion.
- Development of a fugitive dust control by-law may reduce PM emissions from practices such as wood burning, open air burning and lawn maintenance. An airshed model could be used to identify areas where focused education and/or enforcement action may be required.

### **Future Work & Next Steps**

Through their affiliation and membership within Clean Air Hamilton, PHS staff are working with stakeholders to procure an airshed model for the City of Hamilton. Board of Health members approved this key recommendation that arose from the *Air Quality Task Force Action Plan* at the December 2013 meeting (BOH13029). This project is expected to begin in 2014 and conclude in 2015, at which time PHS staff will be pleased to present information obtained from the project to the BOH. Information arising from the airshed model is expected to assist in the identification of sector contributors (i.e. residential, commercial, industrial, transportation, etc.) to pollution concentrations within the City. This information should be considered an important factor when deciding what additional targeted actions may be needed in our City's efforts to improve air quality.

There is no one single solution available to a municipality that can reduce airborne particulate matter to a level where no other effort is required. Many actions are required from a diversity of stakeholders to reduce PM. Although the Streets By-law may not be the ideal tool for controlling PM, an alternate by-law may be a useful tool toward reducing PM levels. Any municipal tool used to regulate air quality should be supported by information systems that will allow any by-laws or policies to be evaluated for effectiveness, so that trends can be identified and improvements made. Once completed, the airshed model will be used to develop recommendations to the BOH about which actions and strategies would be best to implement in Hamilton to reduce PM levels.

**Appendices/Schedules Attached**

Appendix A to Report BOH14018 - McMaster Institute for Environmental Health report  
*REVIEW OF CITY OF HAMILTON ‘STREETS’ BY LAW #86-077 & A Literature and  
Policy Review of Available Municipal Air Quality Enforcement Tools*