October 28, 2025

To the Infrastructure & Environment Committee;

Re: Item 25.13 High Pollution Days and Two Stroke Engines

I am a member of the Cliffcrest and Bendale Butterflyway groups, part of the David Suzuki Foundation's Butterflyway Project, which aims to grow habitat for pollinators with native plants in neighbourhoods across Canada. I am also a member of Clean Indoor Air Toronto and one of our areas of concern is pollution from climate change-related events and human activity.

We strongly support Councillor Saxe's motion to recommend that City operations, residents, and businesses refrain from using two-stroke engines when the AQHI reaches 7–10. Two-stroke gas-powered engines are highly polluting, in terms of noise, greenhouse gases, and harmful air pollution.

As noted in the motion, the most common types of gas-powered equipment include lawn mowers and leaf blowers. However, we wish to advise the Committee of another type of equipment that is becoming increasingly popular. At the September 26, 2025 meeting of this Committee, we raised the issue of companies selling pesticide spraying services to property owners, with the supposed goal of limiting mosquitoes and ticks (please see our letter submitted for item IE24.11). This typically involves using a sprayer with a gas-powered two-stroke engine [1], to fog the area with a pesticide, typically permethrin or other pyrethroids.

Although there is a ban on cosmetic pesticide use in Ontario, pyrethrins and pyrethroids can still be used for pest control [2,3]. Pyrethrins are a class of pesticide derived from chrysanthemum (*Chrysanthemum cinerariifolium*). Permethrin and other pyrethroids are synthetic versions of pyrethrin, which do not break down as quickly in the environment. Consequently, spraying of permethrin and other pyrethroids contaminates the air, water, and soil; pyrethroids are highly toxic to insects and aquatic wildlife.

Pyrethrins and pyrethroids act upon contact. However, full-release fogging of an area with pesticide is not effective for controlling mosquitoes and ticks. Instead, fogging an area with pesticide spray ends up killing off many other insects in the area, including the pollinator species and other beneficial insects that we are trying to support with our native plant gardens.

We are not just concerned about the effect this type of pesticide spraying is having on the environment, we are also concerned about the health impact. Health Canada 's 2019 decision on permethrin states that this pesticide is not to be applied with "total release fumigating foggers" and it is not to be applied when people and pets are present [4]. The majority of the pesticide spray goes into the air, creating harmful air pollution that can be inhaled by anyone in the vicinity. If someone has a window or door open while this spraying occurs, that pollution will come indoors and can concentrate there, especially if the ventilation is not adequate.

We hope that the Infrastructure & Environment Committee will consider the issue of pesticide spraying using sprayers/misters with two-stroke gas-powered engines, and include this in the motion as an action to be limited at all times, not just on days when the air quality index is high. By doing so, we can protect the air quality of the city and the health of the city's residents and its wildlife, while continuing to promote biodiversity in the region.

Yours sincerely,

Louise Hidinger, Ph.D.

On behalf of:

Cliffcrest Butterflyway,

Bendale Butterflyway, and

Clean Indoor Air Toronto

Selected references:

1. (a) Tomahawk Power 2-stroke engine backpack sprayer/duster/mist blower, product description on Home Depot website. Accessed October 28, 2025. https://www.homedepot.ca/product/tomahawk-power-2-stroke-engine-backpack-sprayer-duster-mistblower-zika-protection/1001414809 ; (b) Stihl SR200 gas backpack sprayer, product description on Stihl website. Accessed October 28, 2025. https://www.stihl.ca/en/p/mistblowers-sprayers-sr-200-2273#sr200-2273

2. Using pesticides in Ontario. Government of Ontario. Accessed October 28, 2025. https://www.ontario.ca/page/using-pesticides-ontario

3. Health Canada. Pesticides in Canada. Health Canada, Government of Canada. Modified March 25, 2025. Accessed October 28, 2025. https://www.canada.ca/en/health-canada/services/consumer-product-safety/pesticides-pest-management/public.html

4. Pest Management Regulatory Agency, Health Canada. Re-evaluation Decision RVD2019-11, Permethrin and Its Associated End-use Products. Health Canada, Government of Canada. Published August 26, 2019. Accessed October 28, 2025. https://www.canada.ca/en/health-canada/services/consumer-product-safety/reports-publications/pesticides-pest-management/decisions-updates/reevaluation-decision/2019/permethrin.html