




Hamilton

INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	February 13, 2023
SUBJECT/REPORT NO:	2023 <i>Lymantria dispar dispar</i> (LDD) Moth Treatment Plan (PW21069(b)) (City Wide) (Outstanding Business List Item)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Robyn Pollard (905) 546-2424 Ext. 3919 Kristen Bill (905) 546-2424 Ext. 5495
SUBMITTED BY:	Cynthia Graham Acting Director, Environmental Services Public Works Department
SIGNATURE:	

COUNCIL DIRECTION

Report PW21069(a), approved on January 19, 2022 at Public Works Committee, directed City of Hamilton staff to implement aerial treatment of *Lymantria dispar dispar* (LDD) Moth. Report PW21069(b) fulfils the requirement of reporting on the 2022 spray program and anticipated program for 2023.

INFORMATION

Report PW21069 outlines the biology and history of LDD moth in Ontario, as well as the legislation and historical management. Report PW21069(a) outlines the 2022 LDD Moth Treatment Plan.

In the Spring of 2022, aerial treatment was conducted by Zimmer Air Services for the areas that exceeded the recommended treatment threshold. A total of 925 hectares in Ancaster, Dundas, Hamilton and Waterdown were treated with two applications of organic biological insecticide - Foray 48 Biological Insecticide Aqueous Suspension (PCP# 24977). Foray 48B contains bacillus thuringiensis 'kurstaki' (Btk), which is registered to control caterpillars and effective at management of LDD moth populations.

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The first application was applied on May 24, 2022 and the second application was applied on May 31, 2022.

In the Fall of 2022, Lallemand Inc. was engaged to complete egg mass surveys for potential infestations of LDD Moth in publicly owned areas of concern across the City of Hamilton based on previous egg mass surveys and resident reports. The egg mass surveys are used to generate defoliation forecasts for the next year and recommend a treatment program based on that forecast.

Of the 122 plots surveyed, low levels of infestations were reported, indicating a successful 2022 Spring aerial treatment program. New egg masses were found on only 35% of plots surveyed which indicates that the LDD moth population is in a declining phase after the elevated populations seen in Hamilton in the previous two years.

Survey results show there are some persistent pockets of infestation, particularly in Dundas (Dundas Driving Park, Fisher's Mill Park), Ancaster (Ancaster Community Park), and in Hamilton (Woodland Cemetery) that may experience severe to moderate defoliation in 2023. In light of these pockets, a localized treatment program will be completed in 2023, including ground spray treatment with Btk, manual egg mass scraping and tree banding. The areas recommended for localized treatment are outlined in Appendix "A" of Report PW21069(b).

An aerial spray program in 2023 is not recommended based on the data collected as the areas of high LDD population are localized and can be managed with non-aerial methods. Aerial spray programs are only economical or practical when LDD populations are in widespread, contiguous areas at levels that would result in severe defoliation.

Communication and outreach to the community surrounding the localized public properties identified in Appendix "A" of Report PW21069(b) will be included as part of the treatment program, along with continued monitoring of LDD populations in 2023 following localized treatment of control methods.

The 2023 LDD Moth treatment program will cost \$130,000, which is affordable within the current allocated funding for the program, approved through Report PW21069(a).

Staff have consulted with the City of Toronto, City of Burlington, and the Town of Oakville regarding LDD populations, they all noted an LDD population decline similar to the City of Hamilton. These municipalities will not be conducting aerial spraying for LDD Moth control in 2023, at this time. Staff have also consulted Conservation Halton and the Hamilton Conservation Authority. Both have seen LDD population declines and will not be conducting any spray programs in 2023.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW21069(b) – LDD Treatment Plots 2023