



## MEMORANDUM

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**TO:** Mayor Lawlor and Members of Council

**FROM:** Jennifer Spence, Environmental Stewardship Coordinator

**DATE:** October 8, 2024

**MEMO NO.:** CSE-2024-007

**SUBJECT:** Invasive Species Study

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### **PURPOSE OF THE MEMORANDUM:**

The purpose of this Memorandum is to provide Council with highlights from the Town of Halton Hills Invasive Species Study technical report, including a framework for developing an Invasive Species Management Plan.

### **BACKGROUND:**

Invasive species are non-native plants and/or animals that enter an ecosystem, compete with native species and cause environmental damage. Invasive species can have devastating environmental, economic and societal impacts on communities, such as:

- Reducing biodiversity and threatening species at risk (e.g. a plant or animal in danger of extinction or of disappearing from the province).
- Decreasing ecosystem services provided by green infrastructure/natural assets (e.g. air quality, water filtration, flood mitigation).
- Interfering with infrastructure (e.g. clogged pipes, blocked sight lines).
- Increasing costs to maintain recreational spaces and green infrastructure assets (e.g. clearing trails, removing diseased, hazardous or dead trees).
- Reducing enjoyment of nature (e.g. loss of habitat for bird watching, nature appreciation).
- Additional costs to agriculture, businesses and residents.
- Risks to health and safety (direct and indirect).

The Town acknowledges these impacts and has previously developed responses to significant invasive species threats (e.g. Spongey Moth, Emerald Ash Borer, invasive

species removal), and has incorporated invasive species removal activities as part of some natural environment restoration projects. While the Town recognizes and values a healthy environment and natural assets, it does not yet have in place a coordinated and comprehensive approach to managing invasive species. However, important and incremental progress is being made, while recognizing existing resource limitations.

As part of the Tree Canopy Management program, the Town worked with Credit Valley Conservation, with input from Conservation Halton, to develop an Invasive Species Study technical report. Approved as part of the 2024 Budget, this technical study provides an overview of the policies, roles and responsibilities related to managing invasive species in Ontario, a local analysis of invasive species in Halton Hills, and a potential framework to develop a Town of Halton Hills Invasive Species Management Plan.

The full report of this technical study is being finalized and will be shared and discussed with the Healthy Environment and Community Committee and the Mayor's Priority Black Creek Advisory Group. Key findings have been summarized in this Memo.

Technical background information from the study will be an important input into the development of the Invasive Species Management Plan, a process which will involve Council and community consultation. Relevant elements from the technical document will be brought forward to Council as part of the more comprehensive Invasive Species Management Plan.

## **COMMENTS:**

Managing invasive species requires considerable collaboration and resources. Federal and provincial government roles focus on coordination, policy, strategies and enforcement – and some of their approaches include providing funding for invasive species management. Institutions and non-profit organizations contribute to research, knowledge sharing, and funding for projects. Landowners, including municipalities, are largely responsible for on-the-ground management of invasive species.

Municipalities are in a unique position as they have a closer relationship with residents and businesses, manage municipally-owned properties, enact by-laws, collaborate with other agencies, provide funding, carry out outreach, and undertake community engagement.

In response to the key role played by municipalities, many are developing Invasive Species Management Plans to help prioritize efforts and ensure the effective use of limited resources. On average, municipalities in Ontario (over 50,000 population) spend \$2.76 per capita on invasive species management, per year.

Ontario has the highest number of invasive species of any province or territory in Canada. New invasive species continue to arrive, and existing invasive species are

expanding. Through the Study, a total of 155 invasive species have been identified in Halton Hills. The study drew on existing data from natural area inventories, watershed monitoring program data, and incidental observations.

Key findings from the technical analysis include:

- Plants represent 94% of all invasive species detected.
- The majority of detected invasive species (60%) have the ability to significantly impact natural habitats, reducing biodiversity and ecosystem function.
- The number of different invasive plant species has remained stable since monitoring began.
- The abundance (i.e. % cover, number of stems) of individual species has been increasing across the watershed (1999-2023).
- Fifty-three additional invasive species that are known to have harmful impacts elsewhere in Canada or in the United States are considered at risk of being introduced into Halton Hills in the future.
- Invasive species presence and abundance is exacerbated by the impacts of climate change.

With so many invasive species already present in Halton Hills, establishing an Invasive Species Management Plan is crucial for identifying priorities and effectively allocating resources to protect green infrastructure/natural assets and associated levels of service.

It is not reasonable or practical to manage/control every invasive species in every location. Plans allow municipalities, like Halton Hills, to more efficiently and effectively direct scarce resources to manage invasive species in a manner that will be most impactful. Investing in prevention is also a key component, since the costs associated with prevention and early detection/eradication are considerably less than the cost to control an established invasive species.

The key components of an Invasive Species Management Framework include:

- **Prevention and Protection:** Understanding potential threats and actions that can be taken to prevent the spread and establishment of new invasive species.
- **Identification and Monitoring:** Establishing a process to inventory and monitor invasive species. This may be integrated into other green/natural asset management processes for efficiency.
- **Containment and Management:** Identifying which invasive species and locations are the highest priority to manage and the best mechanisms to manage them.
- **Engagement and Collaboration:** Effective management requires collaboration with other agencies to leverage research and funding, as well as engaging with the public to implement the framework.

The technical study provides background information for the Plan and a proposed Management Framework to guide its development. While the Plan will largely provide

direction on how the Town should manage invasive species on Town-owned lands, it will also include a program to ensure residents and businesses are informed and empowered to participate in managing invasive species by understanding the impacts, what to look out for, how to manage invasive species on their own properties, and by providing input into the Town's management and monitoring program.

Engagement with the public, Council, Strategic Plan committees, Mayor's priority committees, and a variety of other stakeholders (including Town departments) is a critical component of this project to ensure a collaborative approach.

If approved as part of the staff recommended 2025 budget, development of the Invasive Species Management Plan and Management Prioritization Tool will begin in 2025, and is expected to take approximately 12-18 months to complete. The Plan and Tool will be comprehensive, proactive and adaptive to fit the Halton Hills context.

## **CONCLUSION:**

Invasive species can negatively impact infrastructure, green infrastructure/natural assets, ecosystems, the economy, and community well-being. Invasive species are on the rise and their spread and impact is exacerbated by a changing climate. Managing invasive species can be costly, and it is impossible to manage all invasive species in every situation.

Building on the technical Invasive Species Study, the Invasive Species Management Plan will provide a coordinated, practical effective, and comprehensive approach to managing invasive species in Halton Hills, and allow focus on areas that will have the most impact. It will help ensure data-informed and cost-effective invasive species management decisions.

This project will advance Council's Strategic Plan priorities related to Halton Hills being a nature-rich community and the priorities of Natural Areas & Heritage and Infrastructure & Asset Management, support implementation of the Fairy Lake Water Quality Study, and align with the pending Green Infrastructure (Natural Assets) Asset Management Plan.

Reviewed and approved by,

Michelle Bourdeau, Manager of Environment & Climate

Kevin Okimi, Director of Parks, Community Development & Environment

Damian Szybalski, Commissioner of Community Services

Chris Mills, Chief Administrative Officer

