AN INTRODUCTION TO INVASIVE PHRAGMITES MANAGEMENT ALONG ONTARIO ROADS AND RIGHT OF WAYS

May 22, 2024

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Invasive Species Centre

Agenda

- The many costs of invasive Phragmites
  - Ecological
  - Economic
  - Social
- Solutions for increased impact on Phragmites
  - Multi-partner collaboration
  - Best Management Practices
  - Invasive Phragmites Control Fund

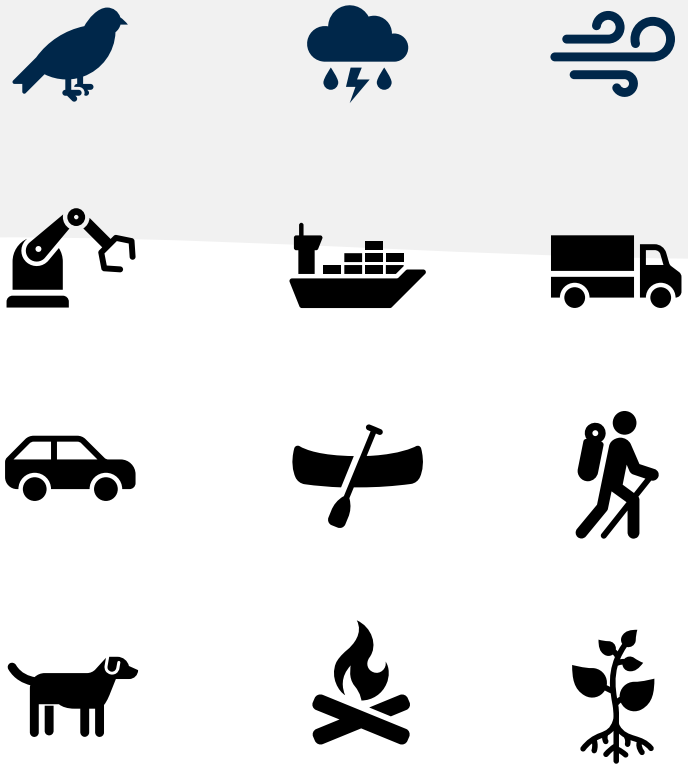
A SPECIES IS CONSIDERED **INVASIVE** WHEN:

It’s introduced to an ecosystem **outside of its native range.**

It has potential impacts on **ecology, the economy, or society** in its introduced range.

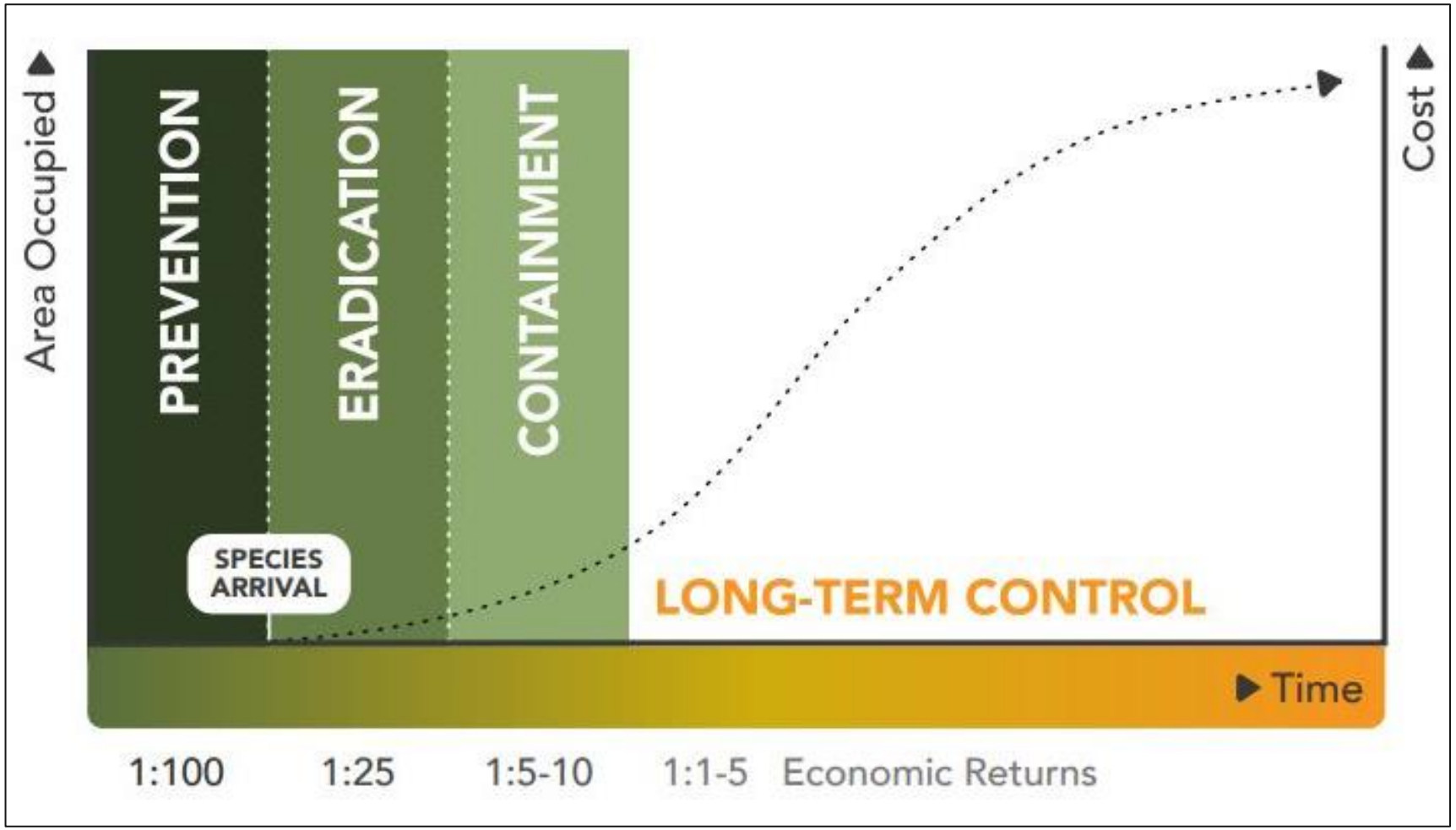
Non-native does not mean invasive

How do invasive species spread?



How do invasive species spread?

The Invasion Curve: *Prevention = Value*



Controlling invasive species before they become established in an area will reduce their impact on human health, biodiversity, the economy and society.

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Adapted from the Generalised Invasion Curve (Agriculture Victoria, 2009).

The problem in one photo

The Costs Add Up!

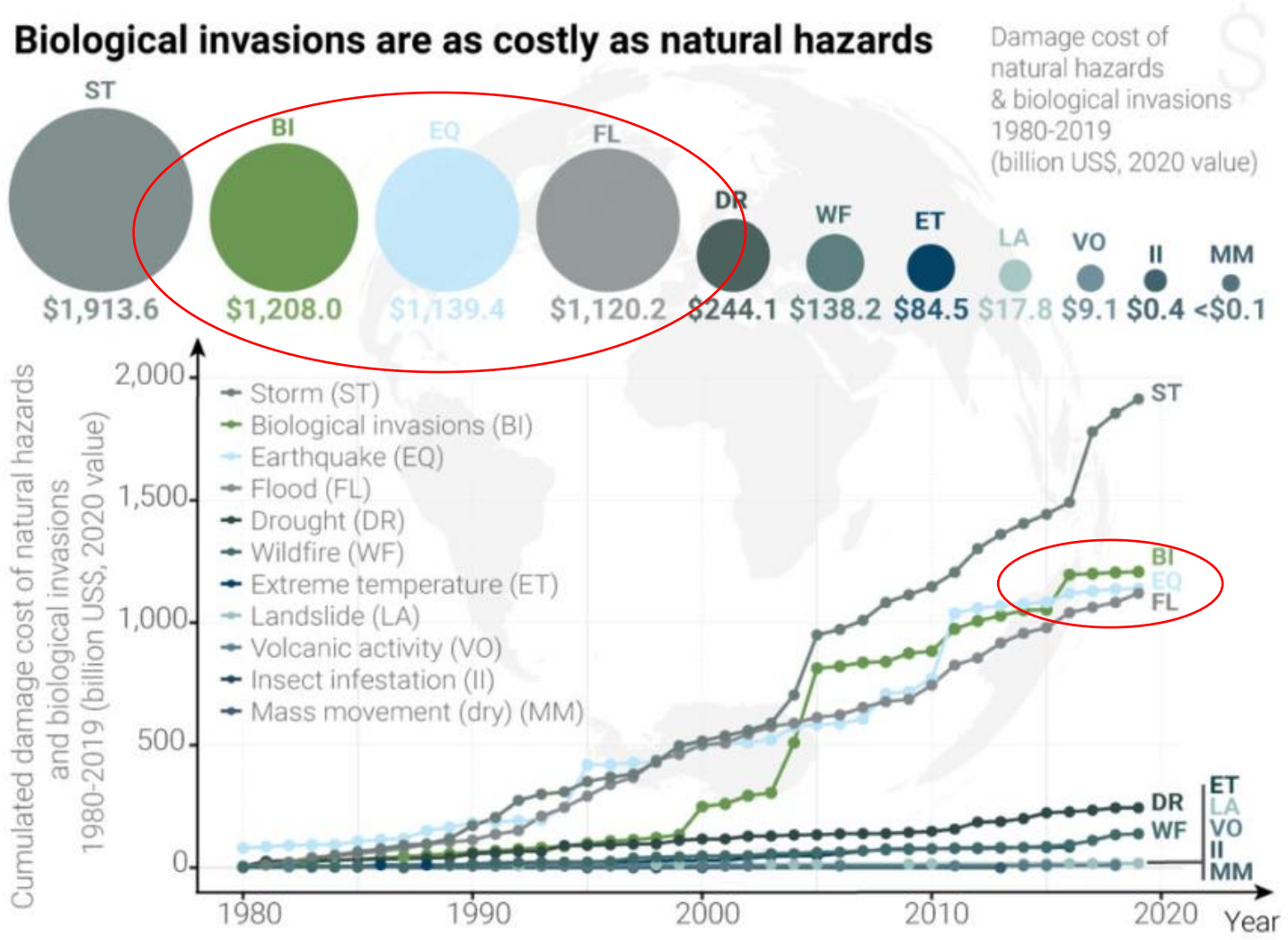
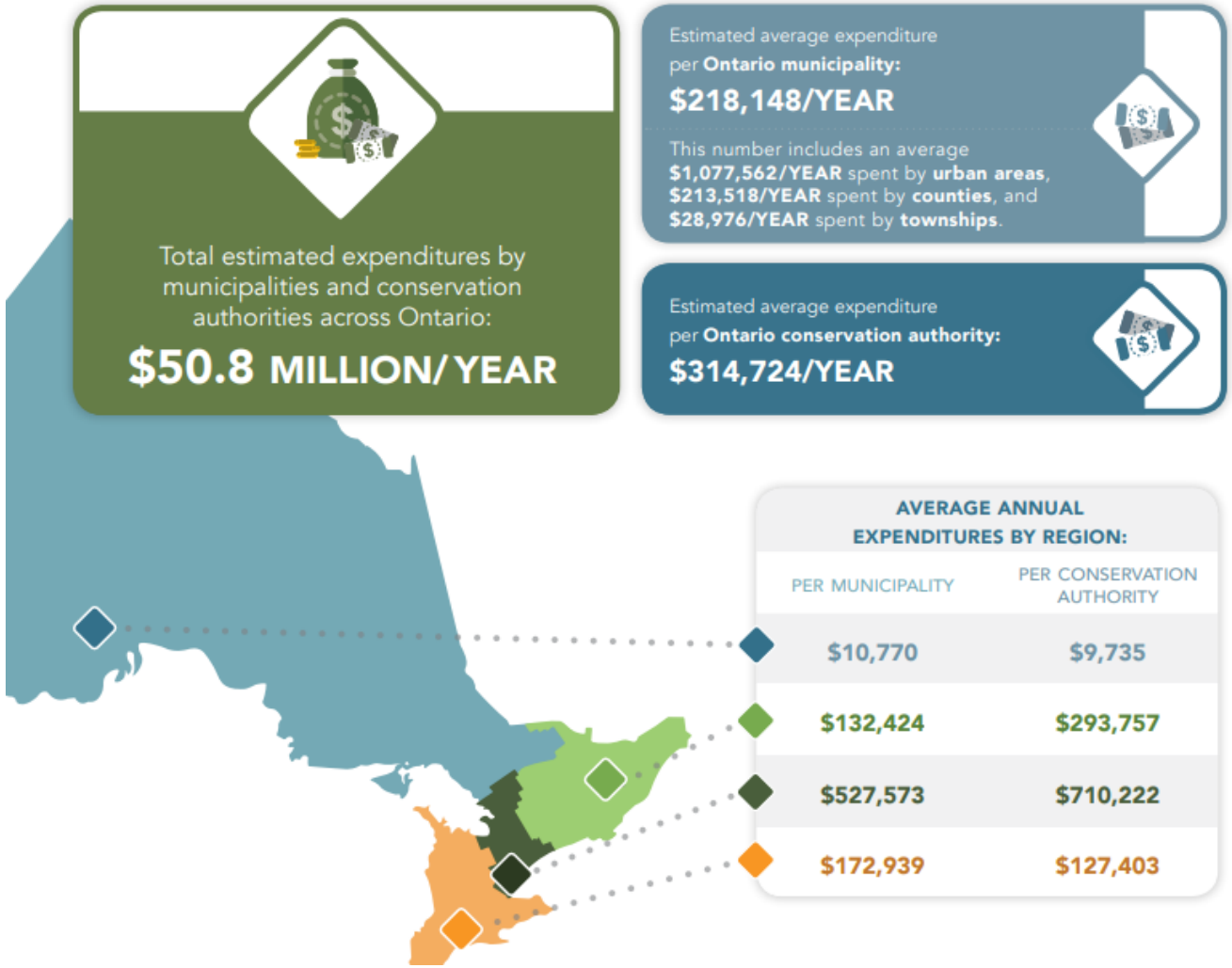


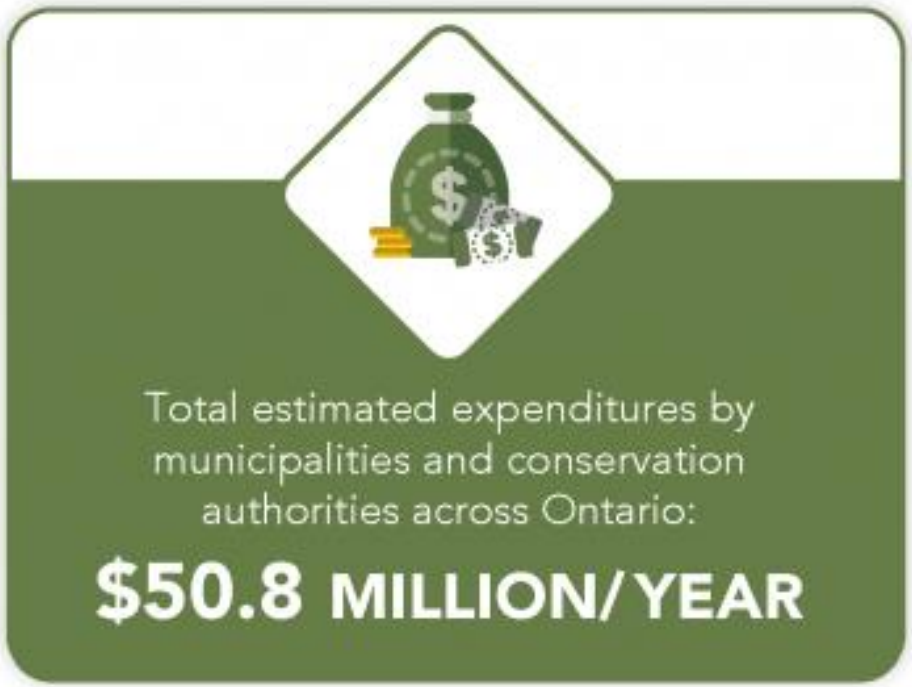
Image source: Turbelin et al., 2023

The Costs of Invasive Species Add Up!

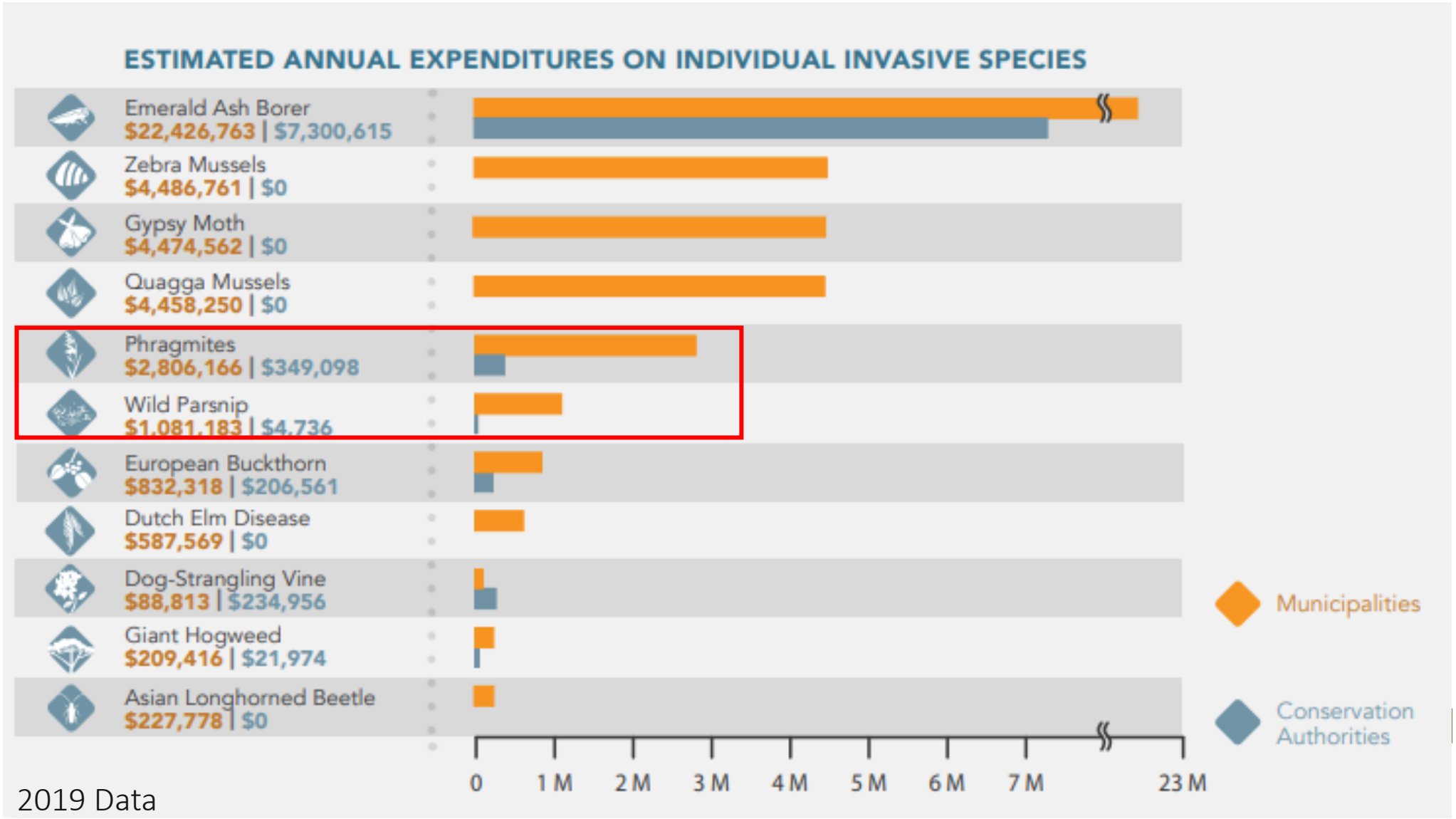


Economic Impact of Invasive Species on Municipalities in Ontario

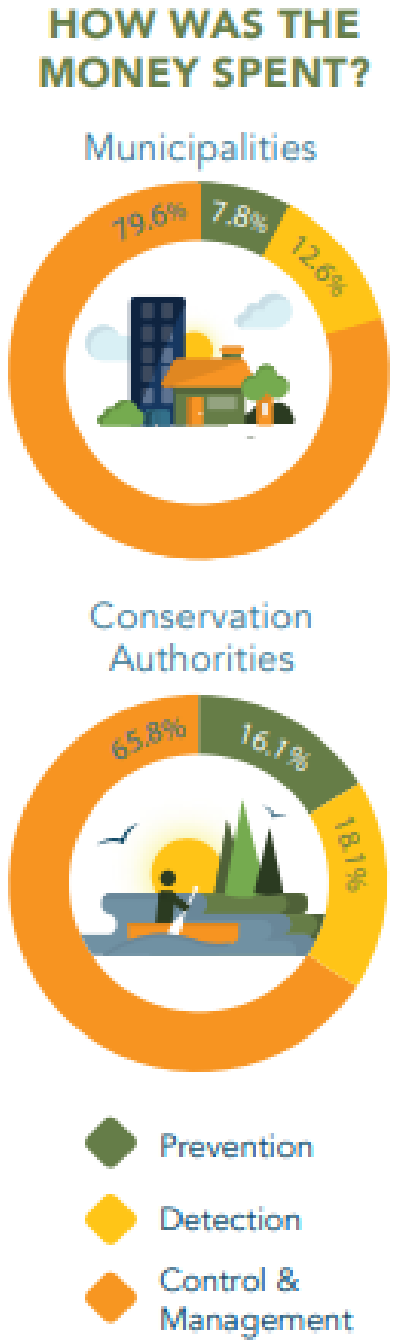
- Did you know?
- The potential economic impacts of invasive species on Ontario's economy is **$3.6 billion/year**



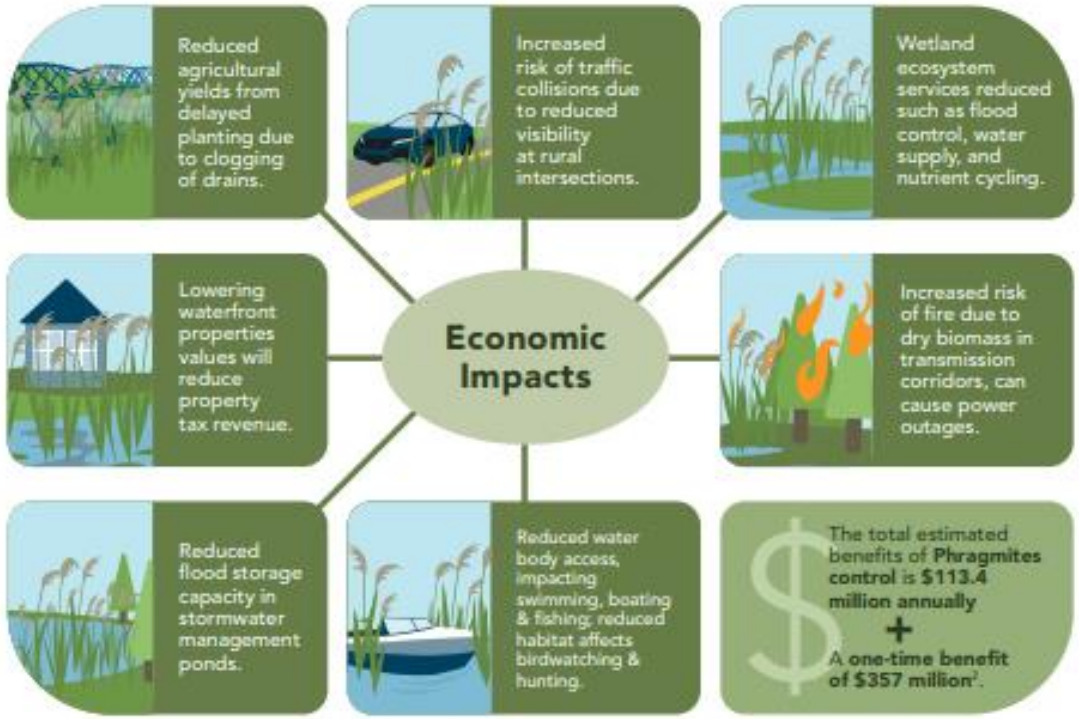
How Are These Investments Allocated?

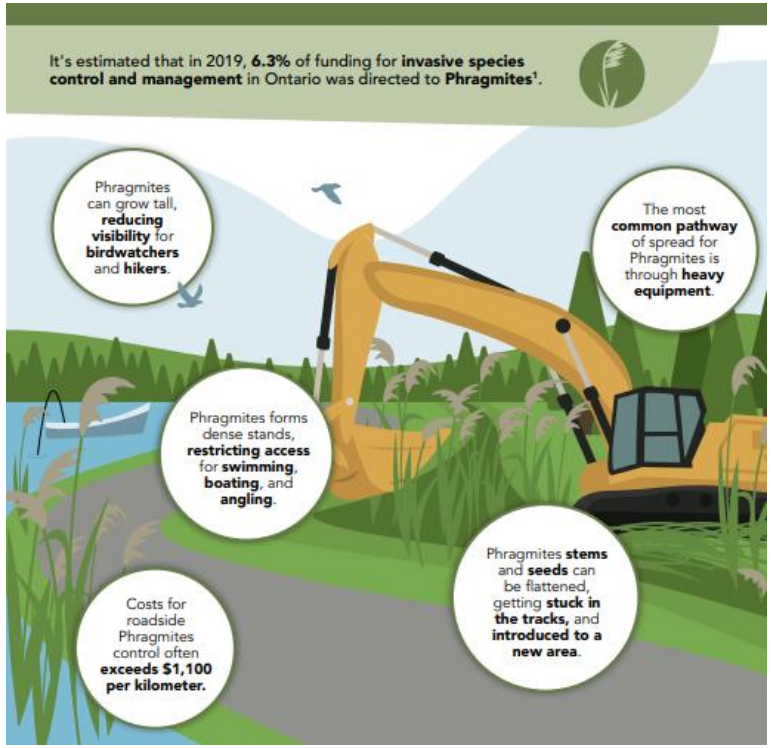


2019 Data



The Costs of Phragmites in Ontario





National Invasive Species Municipal Expenditures Survey

Enquête sur les dépenses municipales associées aux espèces exotiques envahissantes

Invasive Species Centre

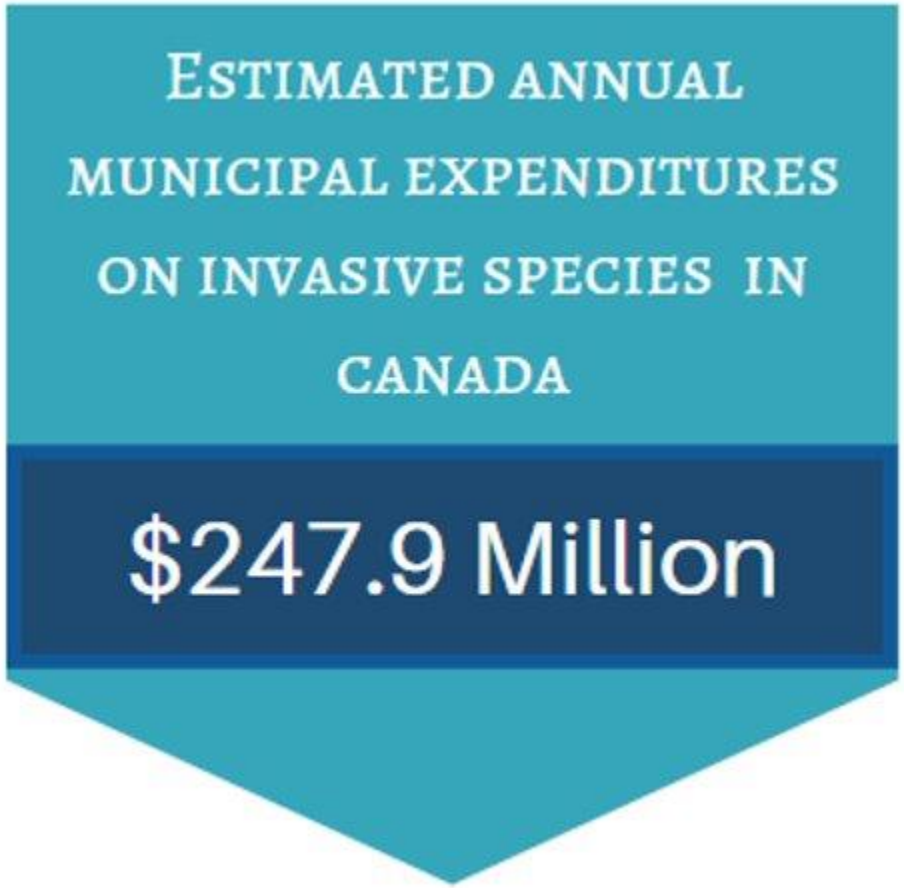
Centre des espèces envahissantes

Environment and Climate Change Canada

Environnement et Changement climatique Canada

National Survey Results

- 179 (77.5%) municipalities indicated costs incurred due to invasive species activities, but 140 respondents indicated **funding was not sufficient** for management
- Average expenditure across all responding municipalities: **$142,101/year**
- The majority of expenditures were incurred for **control and management** activities (61.6%)



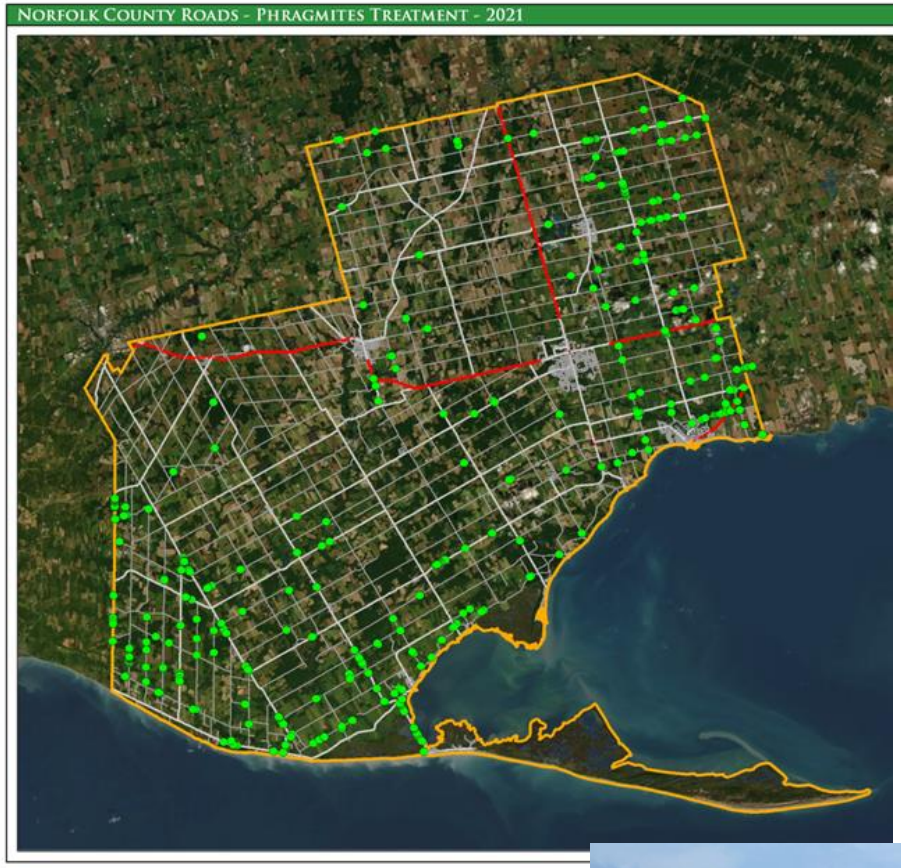
Protecting community spaces one Stalk at a time!

The Need for Collaboration

- Phragmites does not respect property lines
- Important to treat the patch, not just the edge!

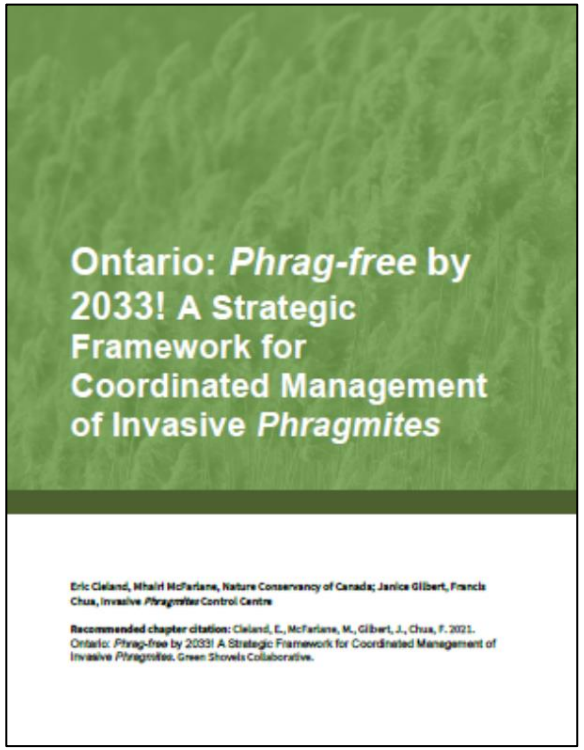
- Collaboration across the fence is essential for long term success

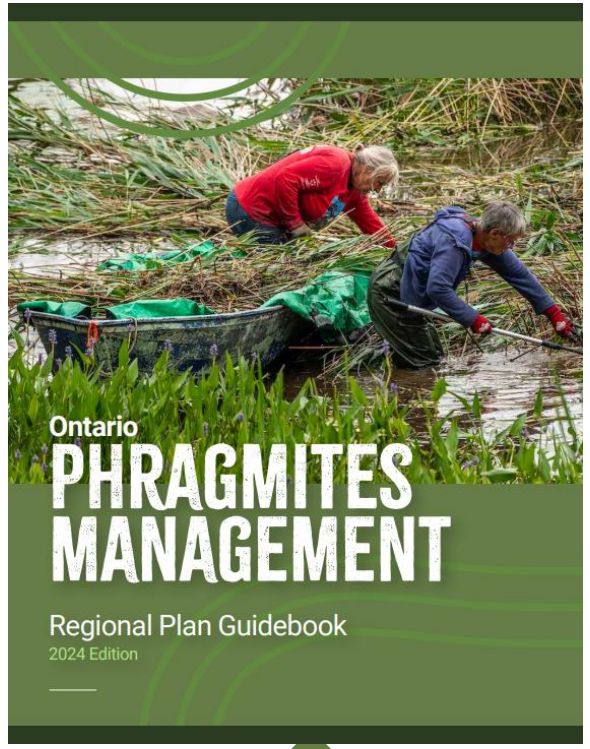
Delivering Landscape-scale Phragmites control in Ontario



Guiding Documents for Coordinated Phragmites Control

- Comprehensive vision for *collaborative* action - including prioritized actions and program governance
- Regional Implementation Planning Guidebook – How-to guide for establishing landscape-scale programs across Ontario
- Indigenous Engagement Strategy to support a larger program
- Communications Strategy with outreach priorities to ensure public and key sector support/participation
- Cost-Benefit Analysis – make sure the numbers add up!
- Provincial input received from the Inter-ministerial Invasive Species committee (NDMNRF, OMAFRA, MTO, MECP)





Developing a Coordinated Response

- There are great people doing great work on the landscape!
- Projects are often localized (think site, wetland, property) in scale, and may be occurring alongside other efforts.
- Jurisdictional boundaries can create obstacles or limit implementation by individual groups
- Coordination through regional lens allows the opportunity to leverage available resources, expertise and funds.

To successfully manage Phragmites, an integrated, landscape-scale implementation plan that includes all necessary partners, rights holders and stakeholders within a region is needed.

Technical Resources for Phragmites Management

- Newly updated Best Management Practices & Technical Bulletin documents as of March 2024
  - www.invasivespeciescentre.ca
- What you'll find:
  - Updated information on overwater herbicide application
  - Guidance for working in sensitive habitats
  - Mapping and monitoring guidance
  - Much more!

Invasive Phragmites Control Fund

- Granting program now in our 5th year
  - 2024-25 cycle is now open – closing May 30th 2024 @ 11:59pm

2023/2024 Recipients

Organization	Project Overview
Long Point Ratepayers' Association	An ongoing, collaborative, well-managed project to control phragmites in an important, fragile environment using proven strategies and personnel.
West Carling Association	Map, eradicate, dispose of, and monitor invasive phragmites in Carling Township coastal regions
Near North Enviro-Education Centre	This season, the Near North Enviro-Education Centre will continue to implement the control plan focusing on three main areas for management.
Town of Ajax	The project will map locations of phragmites across Ajax and prioritize these locations for strategic, realistic, and effective management.
Georgian Bay Forever	This project will work collaboratively with other organizations to map, remove, and properly dispose of phragmites to save our wetlands.
Evergreen	We will control and reduce the phragmites population present at Evergreen Brick Works while engaging volunteers and educating the public.
Trent University	Trent University to take a proactive approach to invasive phragmites control, towards a phragmites free campus in 5 years.
Shawanaga First Nation	We are creating an Indigenous Phragmites Control Unit within the Shawanaga First Nation traditional territory.
The County of Brant	Our Phragmites Control Project will be a multi-departmental collaboration to substantially reduce the population of Phragmites within our municipality.
Lakehead Region Conservation Authority	The LRCA will facilitate the TBRPC, intended to locate, map, and treat invasive Phragmites in Thunder Bay and surrounding areas.
Heartland Forest Nature Experience	Heartland Forest's project is to control the invasion of phragmites within our unique ecosystem and create community awareness.
The Corporation of the Town of Mono	The Town of Mono aims to reduce the spread of phragmites through expanding phragmites prevention and control activities.
Lakehead University	Extension of the Phragmites Control Youth Action Project for CELL's Environmental Specialist High Skills Major (SHSM) Invasive Species module.
The Nature Conservancy of Canada	Coordinating and collaborating on invasive phragmites control in the southeastern Georgian Bay
Toronto Nature Stewards – Hoptree/Misty Hill Parks Site	Community volunteers under supervision by Lead Stewards of TNS will conduct manual removal of phragmites within Hoptree/Misty Hills parks
Severn Sound Environmental Association	Surveying & mapping roadside invasive phragmites in the southern portion of the Severn Sound Watershed.

2022/2023 Recipients

Organization	Project Overview
Credit Valley Conservation Authority	Control of phragmites and a feasibility study and creation of an outreach campaign for future over-water chemical control.
Friends of Second Marsh	Management of invasive Phragmites in McLaughlin Bay Wildlife Reserve (Zone 1).
Kettle Creek Conservation Authority	KCCA will manage invasive phragmites in the Kettle Creek watershed at 3 wetland creation sites and 1 provincially significant wetland.
Near North Environmental Education Centre	This project, brings a robust control program to the west end and lakeside phragmites stands.
The Corporation of the City of Mississauga	The City is consulting the Invasive Phragmites Control Centre to create a Phragmites Control Plan using surveyed phragmites data
Wye Marsh Wildlife Centre	Eliminate of invasive phragmites for sites on and immediately adjacent to the Wye Marsh National Wildlife Area.

2021/2022 Recipients

Organization	Project Overview
Centre Ipperwash Community Association	Comprehensive phragmites control truck using multiple removal methods.
Friends of Second Marsh	Management of Invasive Phragmites in McLaughlin Bay Wildlife Reserve (Zone 1).
Georgian Bay Forever	Georgian Bay Forever has partnered with many communities to eradicate Phragmites, including Beausoleil First Nation, and have recognized the need to not only cut Phragmites but invest in more robust mapping techniques to fully understand the true scope of the issue.
Lambton Shores Phragmites Community Group	Management targeting Phragmites growing on the banks of Mud Creek.
Marl-Tiny-Matchdash Conservation Association	Multi-resource plan to combat the spread of phragmites at Tiny marsh.
Municipality of Whitestone	Community tool kit for residents to borrow that will remove financial barriers and encourage them to tackle invasive species on their property.
Near North Enviro Education Centre	The project will bring together communities in Almaguin to remove phragmites from Almaguin lakes and watershed.

Invasive Phragmites Control Fund – Now Open!

Apply for the Invasive Phragmites Control Fund

With support from Ontario's Ministry of Natural Resources and Forestry, the Invasive Phragmites Control Fund is seeking proposals for grants to support groups or organizations to implement Phragmites prevention and control activities in Ontario.

The purpose of the Invasive Phragmites Control Fund is to support local on-the-ground action on Phragmites and amplify and expand control activities into a provincial scale, coordinated Phragmites program.

Program Objectives

The Invasive Phragmites Control Fund will support collaborative action in Ontario to:

1. Map and develop integrated collaborative plans to prevent and control invasive Phragmites at scale (e.g., watersheds, municipalities, regions etc.) and consider post-management restoration to prevent re-establishment, and/or
2. Amplify and expand Phragmites control implementation, and/or
3. Address the leading edge and rapid spread of Phragmites, and/or
4. Increase collaboration and coordination, volunteer, and landowner participation & capacity

Application deadline: May 30, 2024 @ 11:59pm

More info: www.invasivespeciescentre.ca/grants

Invasive Phragmites Control Fund – Now Open!

Program Priorities
Funding for multiple categories may be requested in one application.

1. Phragmites Mapping, Monitoring and Planning (e.g. mapping surveys, developing integrated plans for prevention, control and considering post-management restoration to prevent re-establishment, employing a regional approach to planning, consulting fees, budgets, partner engagement, landowner engagement, equipment etc.)
2. Phragmites Control Implementation (e.g. follow integrated pest management approach, prevention, spading, physical and mechanical removal, chemical removal, prescribed burns, cutting, rolling, biocontrol, equipment)
3. Phragmites Innovation (e.g. advancing the use of innovative prevention and control techniques available for use in Ontario)

Projects can receive $2,500 to $25,000, with exceptional (e.g. multi-partner, landscape scale collaborations) projects up to $50,000.

Virtual Information Sessions

- General information session: Tuesday, May 7 at 11 a.m. ET | Register **here**
- Developing a budget and understanding in-kind contributions: Monday, May 13 at 11 a.m. ET | Register **here**

If you aren't able to attend, copies of the recording will be available to watch on **YouTube**.

Interested applicants should review the Applicant Guide and **complete an online application by Thursday, May 30, 2024 at 11:59 p.m.**

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Easiest steps for getting started

- Start with assessing what's already underway
  - Many doing Phragmites control work already but perhaps under a different name!
- Mapping municipal roads is always a cheap and easy starting place
- Be selective in control efforts – start small, protect key assets, grow in time
- Collaboration is key
  - MTO, CA's, NGOs and others are doing excellent work. Connecting projects yields the greatest value

Invasive Species Centre

Thank you for your interest!

Questions?

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