

# 2025 PHRAGMITES MANAGEMENT FIELD SEASON REPORT



# ABOUT US



*GenE staff removing Phragmites with long-reach hedge trimmers.*



*GenE and Seguin Township staff removing Phragmites from a wetland.*

The Township of Seguin and GBB have a history of collaborating on climate action, species at risk, habitat stewardship, and water quality projects. Building on this relationship, the Township retained GenE to collaborate on a Phragmites management project focused on restoring wetland habitats.

Generations Effect (GenE) is a social enterprise rooted in the Georgian Bay Mnidoo Gamii Biosphere (GBB). We provide consulting and technical services that advance ecological, social and economic well-being, ensuring that we work to maximize benefits to society and ecosystems while giving back to community. We reinvest our profits into initiatives and projects in the Georgian Bay Mnidoo Gamii Biosphere Region.

Our approach is to bring people and ideas together. Through collaboration, we bring ingenuity to complex challenges and develop clear strategies to achieve goals with positive, long term outcomes. We look at each project in the context of achieving sustainable development goals as defined by the United Nations. We know that the decisions we make today will have an effect on future generations, so we strive to solve immediate problems with a view to long-term resilience.



*Seguin Township staff transporting cut Phragmites biomass out of a wetland with a canoe.*



# PROJECT OVERVIEW

The *Expanding Phragmites Control and Wetland Enhancement in Seguin Township* project launched in the spring of 2025 as a year-long initiative to build upon and expand Phragmites management and wetland restoration within the Township. It builds directly on the success of the *2024 Enhancing Wetlands in Seguin Township* project, which marked the first year of partnership for Phragmites management between Seguin Township and GenE. That effort scouted roads and trails, recorded dozens of new sites, removed over 3,500 kg of invasive Phragmites, and restored nearly 30 hectares of wetlands. Building from those accomplishments, this year's project prioritized expanded mapping and management of Phragmites from wetland habitats, with the overarching goal of restoring and improving ecosystem functions and services across an even greater area of Seguin Township.



*GenE staff providing training on best management practices for invasive Phragmites.*



*Seguin staff managing invasive Phragmites at a terrestrial site with spade shovels.*



*GenE staff stockpiling and bagging cut Phragmites biomass.*

Funded by the Invasive Species Centre (ISC) through the Invasive Phragmites Control Fund (IPCF), this initiative highlighted the value of partnership between Seguin Township and GenE in tackling the regional challenge of invasive Phragmites. By combining municipal leadership with local ecological expertise, the project demonstrates how coordinated partnerships can deliver measurable results for wetlands, wildlife, and communities across the region.

# PROJECT RATIONALE

Wetlands, often referred to as the "kidneys of the landscape," provide essential environmental, economic, and social benefits, including:

- Improving water quality;
- Reducing stormwater impacts and flood risks;
- Enhancing resilience to climate change;
- Supporting recreational and tourism opportunities;
- Providing critical habitats for fish spawning, breeding, and endangered species; and
- Offering ecological and culturally significant goods and services, particularly for Indigenous communities.

A major threat to wetlands in Seguin Township is invasive Phragmites (*Phragmites australis* subsp. *australis*). This aggressive plant displaces native vegetation, such as cattails and bulrushes, which are essential to wetland health. The spread of Phragmites diminishes wildlife habitats—especially for Species-at-Risk like the Blanding's Turtle and Eastern Massasauga Rattlesnake—alters hydrology by accelerating water depletion, and degrades water quality by disrupting nutrient cycling and the physical structure of wetlands. Additionally, Phragmites negatively impacts recreational activities and poses safety risks for drivers by obstructing sightlines along roads.

Recognizing these threats, Seguin Township has taken measures to control Phragmites and protect its wetlands, focusing on restoring natural heritage systems and supporting biodiversity.



Stand of Phragmites beginning to displace native vegetation in a wetland.

# METHODS & IMPLEMENTATION

This project focused on expanding the control efforts of invasive Phragmites that occurred in 2024, while simultaneously building local capacity for long-term management through training and collaboration to enhance and restore wetlands within Seguin Township. Following a structured timeline (Table 1), Best Management Practices (BMPs) for Phragmites control were implemented, targeting local wetlands.



*Phragmites australis subsp. australis.*

**Table 1.** Project timeline for *The Expanding Phragmites Control and Wetland Enhancement in Seguin Township.*

Timing	Project Activity
<b>May - June</b>	<ul style="list-style-type: none"> <li>Completed scouting for initial observations of Phragmites in gap areas of the Township.</li> <li>Updated the Phragmites distribution map.</li> <li>Engaged with local First Nations.</li> <li>Hosted a Phragmites Identification and Removal Training workshop with staff and community.</li> </ul>
<b>June - September</b>	<ul style="list-style-type: none"> <li>Updated the treatment schedule and verified priority sites for removal.</li> <li>Managed, controlled, and disposed of Phragmites.</li> </ul>
<b>October</b>	<ul style="list-style-type: none"> <li>Re-visited treated sites for a post-cut assessment.</li> <li>Conducted project reporting.</li> </ul>

# METHODS & IMPLEMENTATION

To prioritize sites for Phragmites management, the following priority ranking system was used to guide site selection:

- **Small, Sparse Sites:** Begin with small, sparse Phragmites sites. These are easier to eradicate when addressed early, preventing them from spreading into larger, more challenging areas.
- **Previously Treated Sites:** Follow up on previously treated sites in order of smallest to largest. Revisiting these areas ensures any remaining Phragmites is effectively controlled, maintaining progress.
- **High-Value Areas:** Prioritize sites supporting Species-at-Risk (SAR) populations and/or cultural values. These areas require immediate attention to protect ecological integrity and cultural/community access and use.
- **Large, Dense Sites:** Address larger, denser Phragmites sites last. These areas are more resource-intensive and may require additional support, such as volunteers, to manage effectively.

By applying a structured yet flexible approach, we ensured that our Phragmites management efforts remained strategic and impactful, maximizing ecological benefits.



*Large, dense, aquatic stand of Phragmites.*

# METHODS & IMPLEMENTATION

Key removal methods included mechanical controls, such as selective and clear cutting of invasive Phragmites. Large, dense stands were clear-cut using long-reach hedge trimmers, while less dense areas were selectively cut to preserve native vegetation, using raspberry cane cutters in aquatic zones or serrated-spade shovels in drier locations. Canoes were employed to access Phragmites stands in high-water areas. Where feasible, plant material was disposed of on-site by leaving it wrapped in a tarp to solarize in direct sunlight for a minimum of 3 weeks; otherwise, off-site disposal using a bagging method was carried out by Seguin Public Works, utilizing recycled boat shrink wrap.

Equipment pictured in Figure 1, was utilized throughout the project to effectively manage and control Phragmites, ensuring successful removal and restoration of wetland habitats.



**Figure 1.** Equipment used to manage Phragmites.

# METHODS & IMPLEMENTATION

The project utilized the EDDMapS Pro (Early Detection and Distribution Mapping System) app to track and monitor Phragmites stands, enabling an adaptive management approach. Data was recorded in the app at three key stages:

1. **Initial Observation (Spring)**: Documented the size, location, and density of Phragmites stands.
2. **Post-Removal (Summer)**: Recorded the treatment method and amount of biomass removed following manual removal.
3. **Post-Cut Assessment (Fall)**: Evaluated the effectiveness of control efforts by assigning a qualitative regrowth score: no regrowth, minor regrowth, moderate regrowth, or major regrowth.

This system provided real-time updates on Phragmites distribution, supported the assessment of spread, and offered valuable insights into the success of control measures. These capabilities ensure informed, data-driven decision-making throughout the project.



EDDMapS Pro  
for iOS



EDDMapS Pro for  
Android



*Initial Observation (Spring)*



*Post-Removal (Summer)*



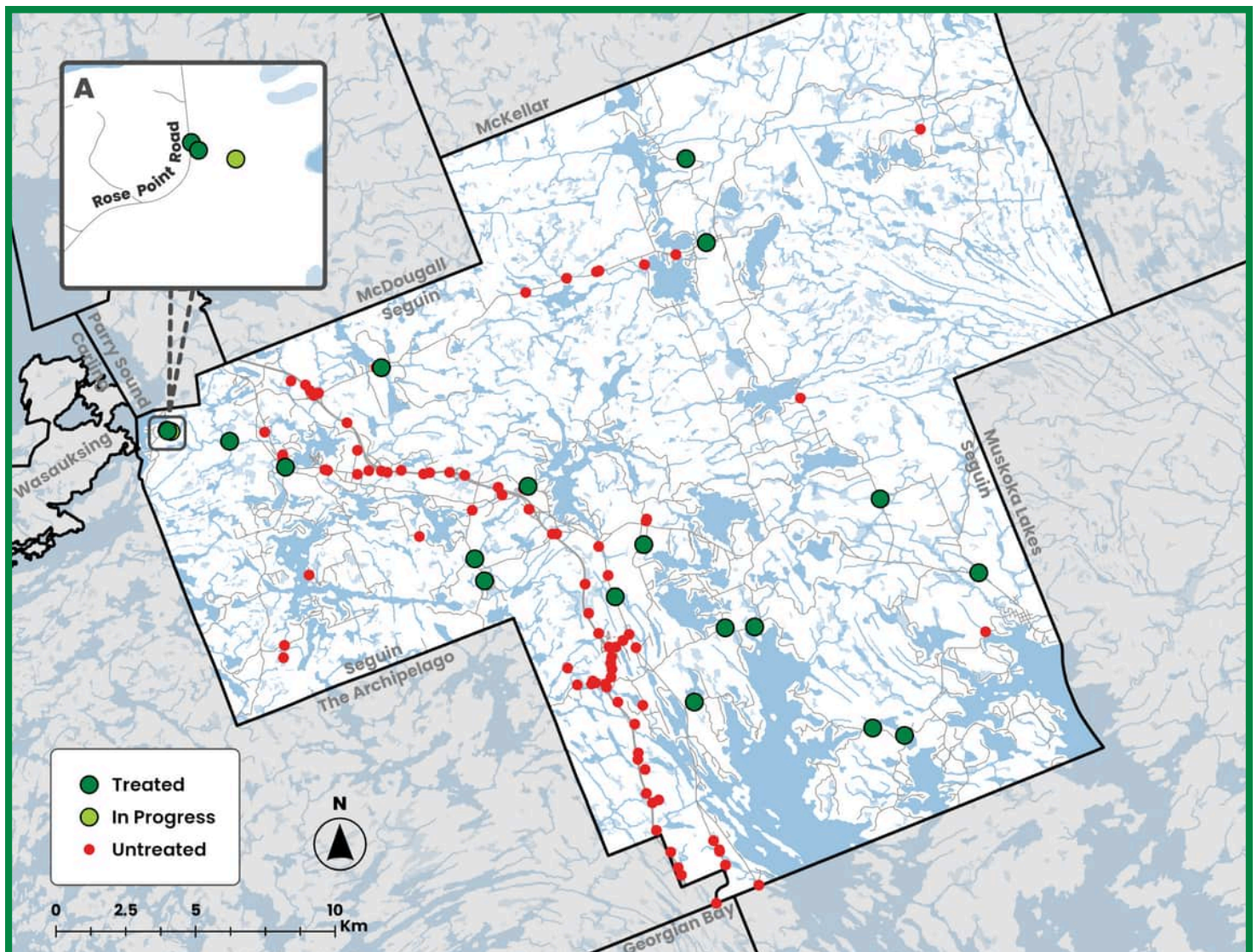
*Post-Cut Assessment (Fall)*



# RESULTS

A total of 20 sites were managed for Phragmites in the 2025 field season (see Figure 2), including 11 sites that were managed in 2024 and 9 newly identified sites:

- Complete removal of Phragmites from 13 aquatic sites and 6 terrestrial sites.
- Partial removal of Phragmites from 1 aquatic site.
- Removal of over 4300 kg of Phragmites biomass, preventing further spread and regrowth.
- Restoration of 34.5 ha of wetland habitat, enhancing ecosystem services such as water filtration, flood mitigation, and wildlife support.



**Figure 2.** Locations of complete site treatments (dark green), partial/in progress site treatments (light green), & untreated sites (red) in Seguin Township.

# RESULTS

## Complete Site Treatments

### Black Road Wetland



45.27862, -79.89146



Selective cutting (serrated-spade shovels & cane cutters)



40 m<sup>2</sup> of Phragmites removed



20 kg of Phragmites removed



Moderate regrowth



Initial (left) & post-cut monitoring (right) observation at Black Road Wetland.

### Blackstone-Crane Lake Road Site



45.27148, -79.88724



Selective cutting (serrated-spade shovels)



200 m<sup>2</sup> of Phragmites removed



250 kg of Phragmites removed



Moderate regrowth



Initial (left) & post-removal observation (right) at Blackstone-Crane Lake Road Site.

# RESULTS

## Blackwater Road Site



45.40677, -79.79241



Selective cutting (serrated-spade shovels)



100 m<sup>2</sup> of Phragmites removed



30 kg of Phragmites removed



Minor regrowth



Initial (left) & post-cut monitoring observation (right) at Blackwater Road Site.

## Clear Lake Road Wetland



45.25522, -79.77775



Selective cutting (serrated-spade shovels)



3000 m<sup>2</sup> of Phragmites removed



200 kg of Phragmites removed



Moderate regrowth



Initial (left) & post-removal (right) observation at Clear Lake Road Wetland.

# RESULTS

## Clear Lake Road & Mets Road Site



45.25536, -79.76422



Selective cutting (serrated-spade shovels)



100 m<sup>2</sup> of Phragmites removed



70 kg of Phragmites removed



Minor regrowth



Initial (left) & post-removal observation (right) at Clear Lake Road & Mets Road Site.

## Haines Lake South Wetland



45.340727, -79.93295



Selective cutting (serrated-spade shovels)



8 m<sup>2</sup> of Phragmites removed



20 kg of Phragmites removed



Moderate regrowth



Initial (left) & post-cut monitoring (right) observation at Haines Lake South Wetland.

# RESULTS

## Hamer Bay Road Wetland



45.23148, -79.79235



Selective cutting (serrated-spade shovels)



4000 m<sup>2</sup> of Phragmites removed



350 kg of Phragmites removed



Minor regrowth



Initial (left) & post-removal (right) observation at Hamer Bay Road Wetland.

## Horseshoe Lake Road East Wetland



45.30179, -79.86683



Selective cutting (serrated-spade shovels & cane cutters)



1400 m<sup>2</sup> of Phragmites removed



20 kg of Phragmites removed



Minor regrowth



Initial (left) & post-removal observation (right) at Horseshoe Lake Road East Wetland.

# RESULTS

## Humphrey Barn & Nature Trails Wetland



45.30179, -79.86683



Selective cutting (serrated-spade shovels & cane cutters)



3000 m<sup>2</sup> of Phragmites removed



525 kg of Phragmites removed



Major regrowth



Initial (left) & post-removal observation (right) of Humphrey Barn & Nature Trails Wetland.

## Humphrey Drive & Stoneman Drive Site



45.28252, -79.81433



Selective cutting (serrated-spade shovels)



20 m<sup>2</sup> of Phragmites removed



150 kg of Phragmites removed




Minor regrowth




Initial (left) & post-removal observation (right) at Humphrey Drive & Stoneman Drive Site.

# RESULTS


## James Bay Junction Wetland

 45.30899, -79.97740

 Selective cutting (serrated-spade shovels)

 20 m<sup>2</sup> of Phragmites removed


 2 kg of Phragmites removed

 Minor regrowth




*Initial (left) & post-removal (right) observation at James Bay Junction Wetland.*

## Lake Joseph Road East Wetland

 45.26583, -79.82773

 Selective cutting (cane cutters and serrated-spade shovels)

 1000 m<sup>2</sup> of Phragmites removed

 180 kg of Phragmites removed

 Moderate regrowth



*Initial (left) & post-removal (right) observation at Lake Joseph Road East Wetland.*

# RESULTS

## Nippissing Road Wetland



45.27169, -79.66160



Selective cutting (serrated-spade shovels)



10 m<sup>2</sup> of Phragmites removed



5 kg of Phragmites removed



Minor regrowth



Initial (left) & post-removal (right) observation at Nippissing Road Wetland.

## Orrville Community Centre Site



45.37952, -79.78360



Selective cutting (serrated-spade shovels)



10 m<sup>2</sup> of Phragmites removed



5 kg of Phragmites removed




Moderate regrowth




Initial (left) & post-removal (right) observation at Orrville Community Centre Site.

# RESULTS


## Park-to-Park Trail Culvert #2 Wetland

 45.31763, -80.00279

 Selective cutting (serrated-spade shovels)

 50 m<sup>2</sup> of Phragmites removed


 50 kg of Phragmites removed


 Minor regrowth





*Initial (left) & post-removal (right) observation at Park-to-Park Trail Culvert 2 Wetland.*

## Rose Point Road West Wetland

 45.32144, -80.03132

 Selective cutting (serrated-spade shovels)

 4000 m<sup>2</sup> of Phragmites removed

 600 kg of Phragmites removed


 Moderate regrowth



*Initial (left) & post-removal (right) observation at Rose Point Road West Wetland.*

# RESULTS

## Stanley House Road Wetland

 45.21967, -79.69675

 Selective cutting (cane cutters & serrated-spade shovels)

 60 m<sup>2</sup> of Phragmites removed


 30 kg of Phragmites removed

 Moderate regrowth




*Initial (left) & post-removal (right) observation at Stanley House Road Wetland.*

## Stanley House Road Site 2

 45.22222, -79.71107

 Selective cutting (serrated-spade shovels)

 800 m<sup>2</sup> of Phragmites removed

 650 kg of Phragmites removed


 Moderate regrowth




*Initial (left) & post-removal (right) observation at Stanley House Road Site 2.*

# RESULTS

## Turtle Lake Road & McCauley Road Site

 45.29609, -79.70608

 Selective cutting (serrated-spade shovels)

 35 m<sup>2</sup> of Phragmites removed

 5 kg of Phragmites removed


 Minor regrowth




Initial (left) & post-removal (right) observation at Turtle Lake Road & McCauley Road Site.

## Partial Site Treatments

### Rose Point Road East Wetland

 45.32121, -80.03103

 Selective cutting (serrated-spade shovels)

 8000 m<sup>2</sup> of Phragmites removed

 1160 kg of Phragmites removed

 Moderate regrowth



During removal (left & right) at Rose Point Road East Wetland.

# OUTCOMES

## PROJECT OUTCOMES

1. Updated inventory of Phragmites stands through the use of reporting tools such as EDDMapS Pro, creating an accessible dataset for future management.
2. Community engagement and education via:
  - a. a Phragmites Identification and Reporting poster shared online, at events and at major community hubs;
  - b. multiple social media posts engaging the public to identify and report Phragmites; and
  - c. an Invasive Phragmites Identification and Management Workshop attended by over 30 participants.
3. Fostered community collaboration and support by hosting a Community Phragmites Cut event, engaging local volunteers in hands-on conservation efforts.
4. Strengthened local capacity for invasive species management, laying the groundwork for long-term stewardship of wetland ecosystems.



**INVASIVE PHRAGMITES**

- ⚠️ Creates an inhospitable environment for native wildlife
- ⚠️ Traps and kills fish and turtles in its dense stalks
- ⚠️ Chokes out native plants, decreasing biodiversity
- ⚠️ Increases fire risk and inhibits recreational activities

**OBSERVATIONS WANTED!**  
Early detection and reporting are crucial for invasive Phragmites control and eradication. Learn how to distinguish between invasive and native Phragmites, and report your sightings!

GEORGIAN BAY BIOSPHERE MNIDOO GAMII Seguin Township



**IDENTIFYING PHRAGMITES**

Two Phragmites subspecies are found here: native (*Phragmites australis americanus*) and invasive (*Phragmites australis australis*). Both thrive in wetland, beach, and shoreline habitats, with the invasive species also found in roadside ditches. Native Phragmites are not harmful to the environment. Accurate identification of the two species is key for effective management.

INVASIVE	INVASIVE	INVASIVE	INVASIVE
			
Dense stands over 6m tall	Large, dense seed heads	Rough, beige stems	Blue-green leaves

NATIVE	NATIVE	NATIVE	NATIVE
			
Shorter & less dense stands	Smaller, sparser seed heads	Smooth with red colouring	Yellow-green leaves

**YOU CAN HELP!  
Report Invasive Phragmites!**

There are three reporting options:

1. Visit [eddmapps.org](http://eddmapps.org)
2. Download the EDDMapS Pro App
3. Call the Invading Species Hotline: 1-800-563-7711

EDDMapS Pro for IOS  
EDDMapS Pro for Android

Photos provided by: Georgian Bay Forever Learn more: [georgianbayforever.org/phragmites](http://georgianbayforever.org/phragmites)

Phragmites Identification and Reporting Poster.

# RECOMMENDATIONS

For the 2026 field season, it is important to return to the 19 completely treated sites from the 2025 field season to continue monitoring and management. Sustained efforts at these sites will further enhance wetland health and ecosystem functionality. To maximize efficiency and ecological return on investment, management should prioritize aquatic sites and smaller, less dense infestations first, where complete eradication is more achievable and the risk of rapid re-establishment is greatest. Following the successful stabilization of these priority sites, resources can then be strategically directed to larger, denser terrestrial infestations later in the season. Conducting control later in the growing period tends to increase treatment efficacy, as removing aboveground biomass at this stage disrupts nutrient translocation and limits the plant’s capacity to replenish energy reserves before dormancy, resulting in a more pronounced reduction in vigor and regrowth potential. Specific recommendations for these sites are provided in Tables 3 and 4.

**Table 3.** Management recommendations for sites treated in 2025.

Completed Sites in 2025	
<b>Black Road Wetland</b>	Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Manage mid-season.
<b>Blackstone-Crane Lake Road Site</b>	Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Engage cottage association to host another community cut event. Manage mid-season.
<b>Blackwater Road Site</b>	Continued monitoring and management through selective cutting with serrated-spade shovels. Manage mid-season.
<b>Clear Lake Road Wetland</b>	Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Manage early in the season.

# RECOMMENDATIONS

<p><b>Clear Lake Road &amp; Mets Road Site</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels. Manage near the end of the season.</p>
<p><b>Haines Lake South Wetland</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Manage mid-season.</p>
<p><b>Hamer Bay Road Wetland</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Manage early in the season.</p>
<p><b>Horseshoe Lake Road East Wetland</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Manage early in the season.</p>
<p><b>Humphrey Barn &amp; Nature Trails Wetland</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Manage early in the season.</p>
<p><b>Humphrey Drive &amp; Stoneman Drive Site</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels. Manage near the end of the season.</p>
<p><b>James Bay Junction Wetland</b></p>	<p>Continued monitoring and management through selective cutting with cane cutters. Manage early in the season.</p>
<p><b>Lake Joseph Road East Wetland</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Manage early in the season.</p>
<p><b>Nippissing Road Wetland</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels. Manage early in the season.</p>

# RECOMMENDATIONS

<p><b>Orrville Community Centre Site</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels. Engage Fowler Construction to obtain permission to manage along road side allowance. Manage near the end of the season.</p>
<p><b>Park-To-Park Trail Wetland</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Manage early in the season. Engage the community member who has been voluntarily trying to manage this site on their own.</p>
<p><b>Rose Point Road West Wetland</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Consider managing Japanese knotweed present at this site. Manage mid-season.</p>
<p><b>Stanley House Road Site 2</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Manage mid-season.</p>
<p><b>Stanley House Road Wetland</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Manage early in the season.</p>
<p><b>Turtle Lake Road &amp; McCauley Lake Road Site</b></p>	<p>Continued monitoring and management through selective cutting with serrated-spade shovels. Manage near the end of the season.</p>



*Seguin Township's Invasive Species Disposal Yard.*

# RECOMMENDATIONS

**Table 4.** Management recommendation for sites partially treated in 2025.

Partially Managed Sites in 2025	
Site	Management Recommendations
<b>Rose Point Road East Wetland</b>	Continued monitoring and management through selective cutting with serrated-spade shovels and cane cutters. Consider engaging community members and groups to volunteer in removal efforts. Prioritize treatment after smaller, less dense sites are completed first



*Seguin Township and GenE staff with volunteers from Crane Lake Association managing Phragmites.*

It is recommended that the Township continue implementing and refining its Invasive Plant Management Plan (IPMP) to guide long-term, adaptive management of invasive species. Following this plan ensures efforts remain responsive to monitoring results, ecological changes, and new research. Maintaining alignment with the IPMP promotes coordinated, species-specific management and collaboration across departments and partners. Future Phragmites control and monitoring should continue to follow the plan's objectives—particularly those focused on tracking treatment success, prioritizing high-risk areas, and engaging the community. To support transparency and public engagement, the Township may also consider posting the IPMP online for residents and community partners to view.

# RECOMMENDATIONS



*Phragmites out-competing native vegetation in a wetland.*

## ADDITIONAL SITES FOR FUTURE MANAGEMENT

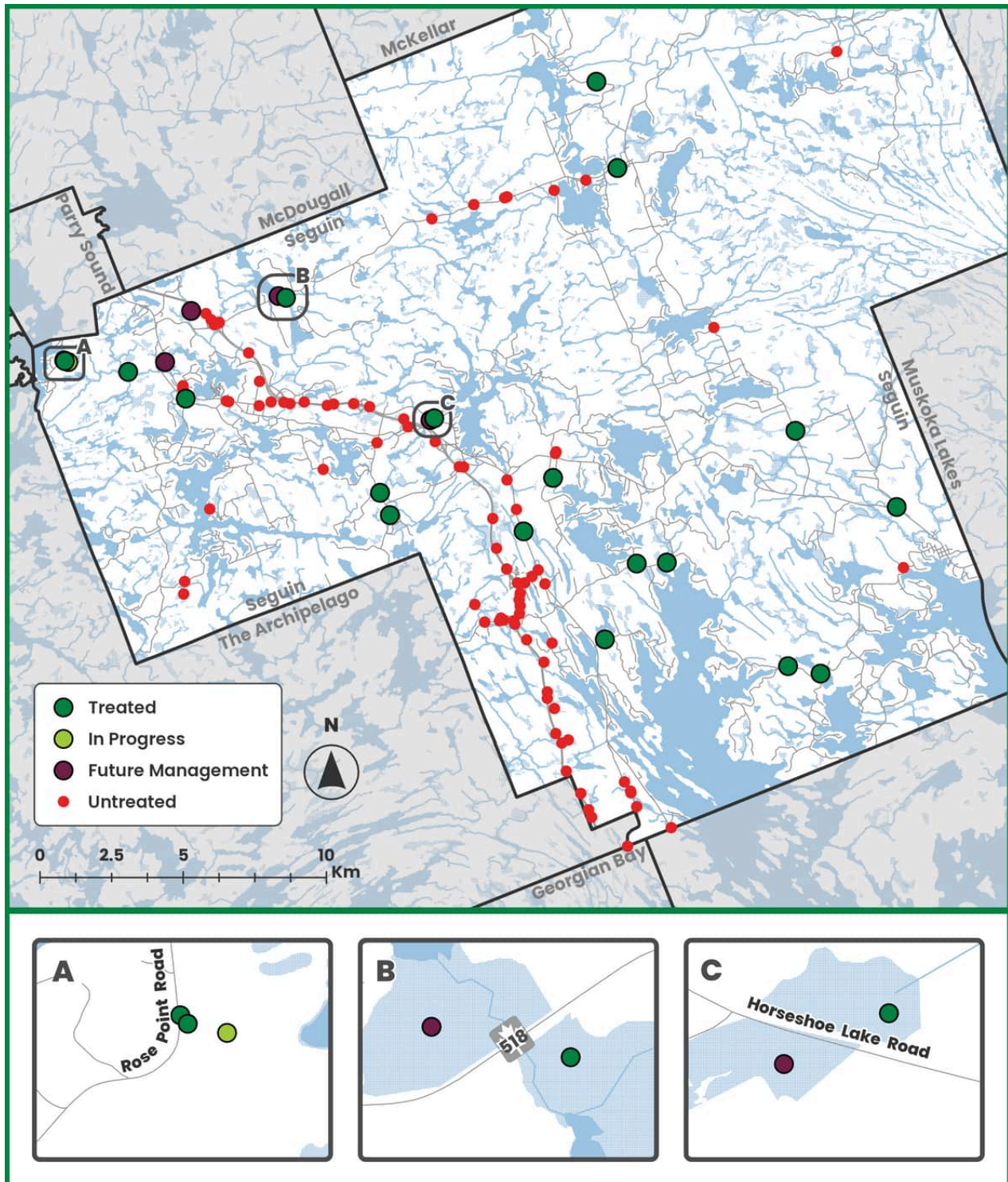
Where resources allow, additional sites should be added to the priority list, giving precedence to those previously treated over newly identified sites. New sites are listed in Table 5 and shown in purple in Figure 4, with an initial recommendation to begin management using the mechanical control method of selective cutting. Regular monitoring after implementing controls will be essential to assess progress and adjust management methods as needed.

**Table 5.** *Additional sites to prioritize for treatment in future years.*

Site	Location
Haines Lake North Wetland	45.340833, -79.935395
Horseshoe Lake Road West Wetland*	45.301237, -79.868512
Hunter Drive Wetland	45.336497, -79.974492
Oastler Park Drive Wetland	45.320554, -79.986348

*\*Treatment of this site was initiated in 2024, but did not occur in 2025 due to challenges securing landowner permissions.*

# RECOMMENDATIONS



**Figure 3.** Locations of complete site treatments (dark green), partial/in progress site treatments (light green), untreated sites (red), & future management sites (purple) in Seguin Township.