

# Ministry of Transportation Phragmites Management Update

Ontario Phragmites Working Group  
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Waterloo, Ontario



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**Environmental Policy Office**  
**Ministry of Transportation**

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# Overview

- Phragmites Inventory
- Treatment Program
- New Contract Specifications
- Draft Best Management Practices
- Case Study - Hwy 401/Hwy 40 Interchange

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# Phragmites Inventory

- Inventorying phragmites locations within the provincial right-of-way commenced in West Region in 2013.
- An initiative to collect a provincial inventory commenced in 2017 and continued throughout 2018.
- The inventory was collected using the ArcGIS Collector App., allowing the data to be viewed in mapping applications.

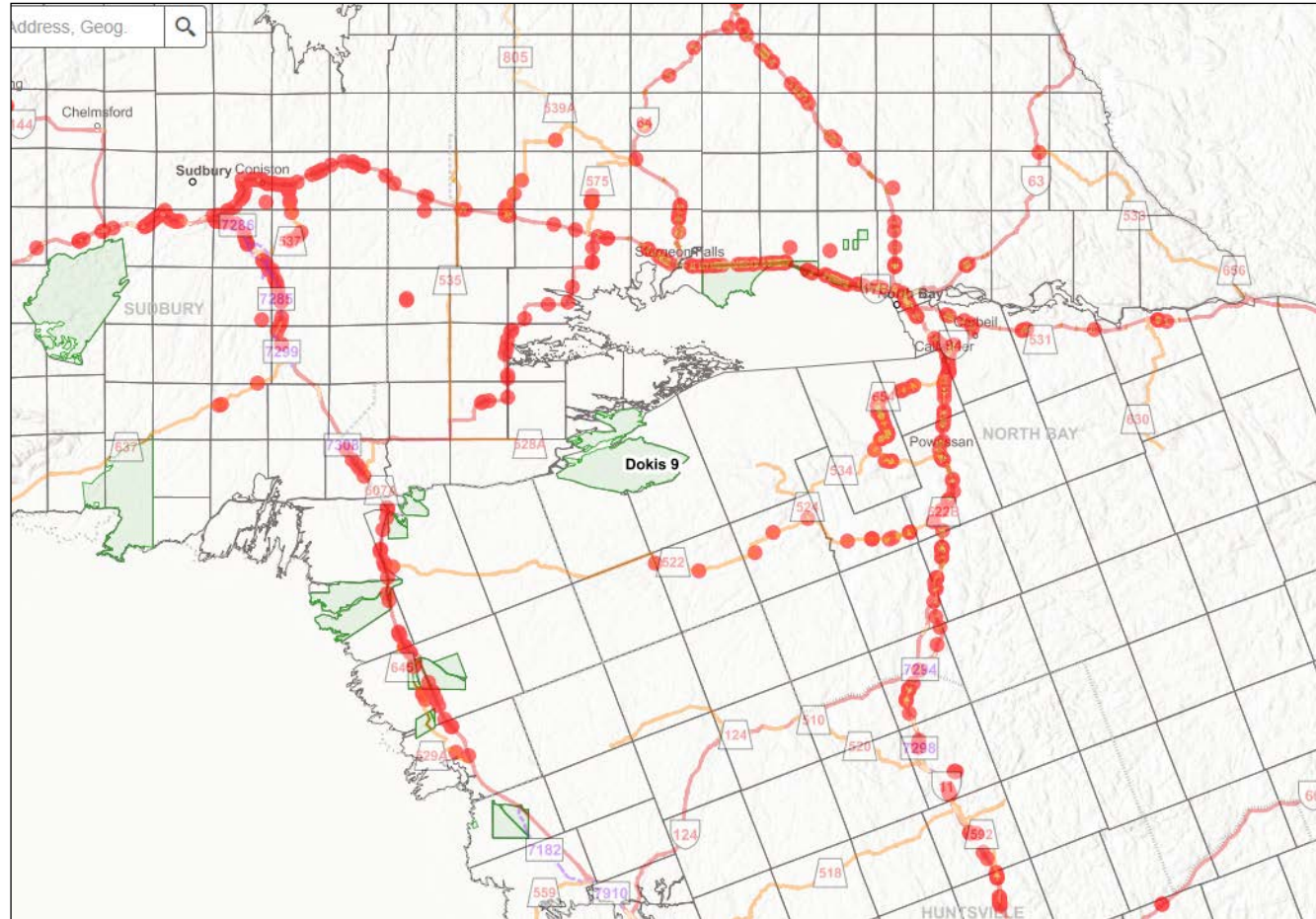
# Phragmites Inventory

## Purpose:

- To quantify the extent of phragmites along MTO's highways;
- To display data visually in mapping software;
- To use as a baseline to assess the effectiveness of MTO's phragmites management program;
- To identify priority locations for treatment through maintenance activities;
- To identify locations that coincide with the capital rehabilitation program, within which phragmites treatment could be included.

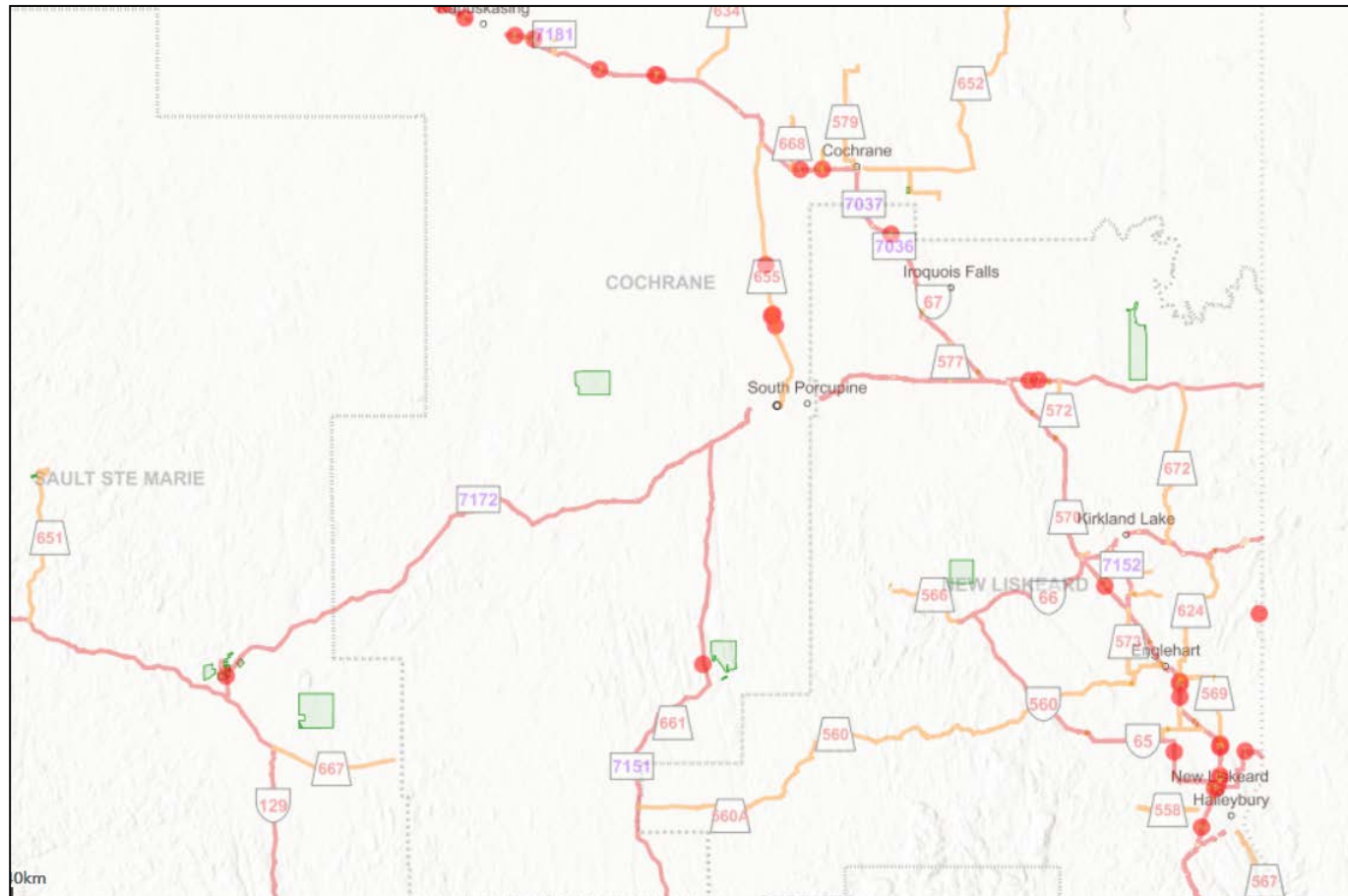
# Phragmites Inventory

## Northeastern Ontario Inventory - 2018

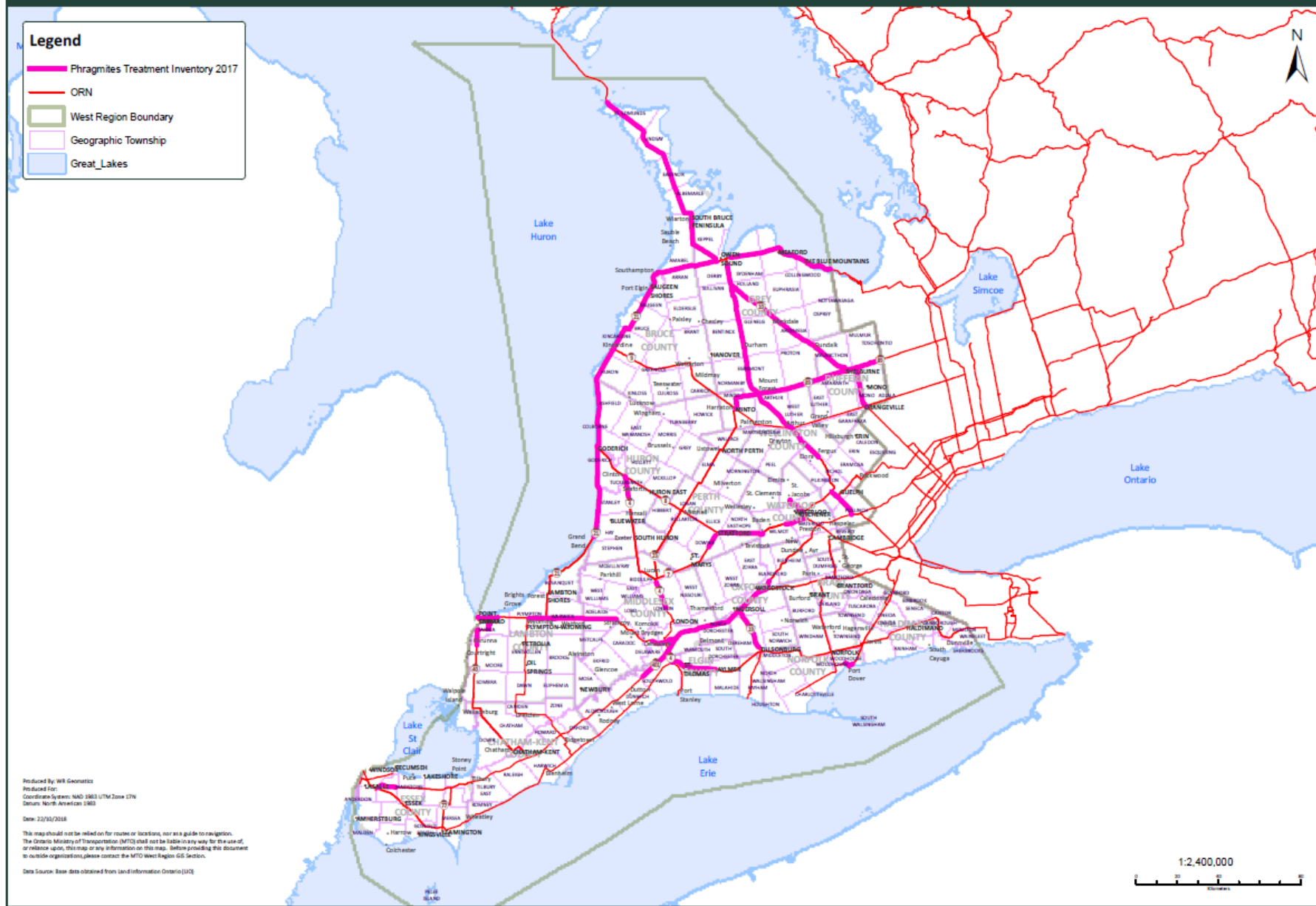


# Phragmites Inventory

## Northeastern Ontario Inventory - 2018









# Phragmites Treatment

## 2018 Program

- Treatment program was completed in early November 2018.
- Eastern, Northeastern and West Region all did some treatment.



# Phragmites Treatment

## 2018 Program – West Region

|                            |                    |
|----------------------------|--------------------|
| <b>Hectares Treated:</b>   | 272                |
| <b>Control Techniques:</b> | Spraying           |
| <b>Highways:</b>           | 3, 40, 401, 402    |
| <b>Herbicide Used:</b>     | Roundup Weathermax |
| <b>Approximate Cost:</b>   | \$326,792          |

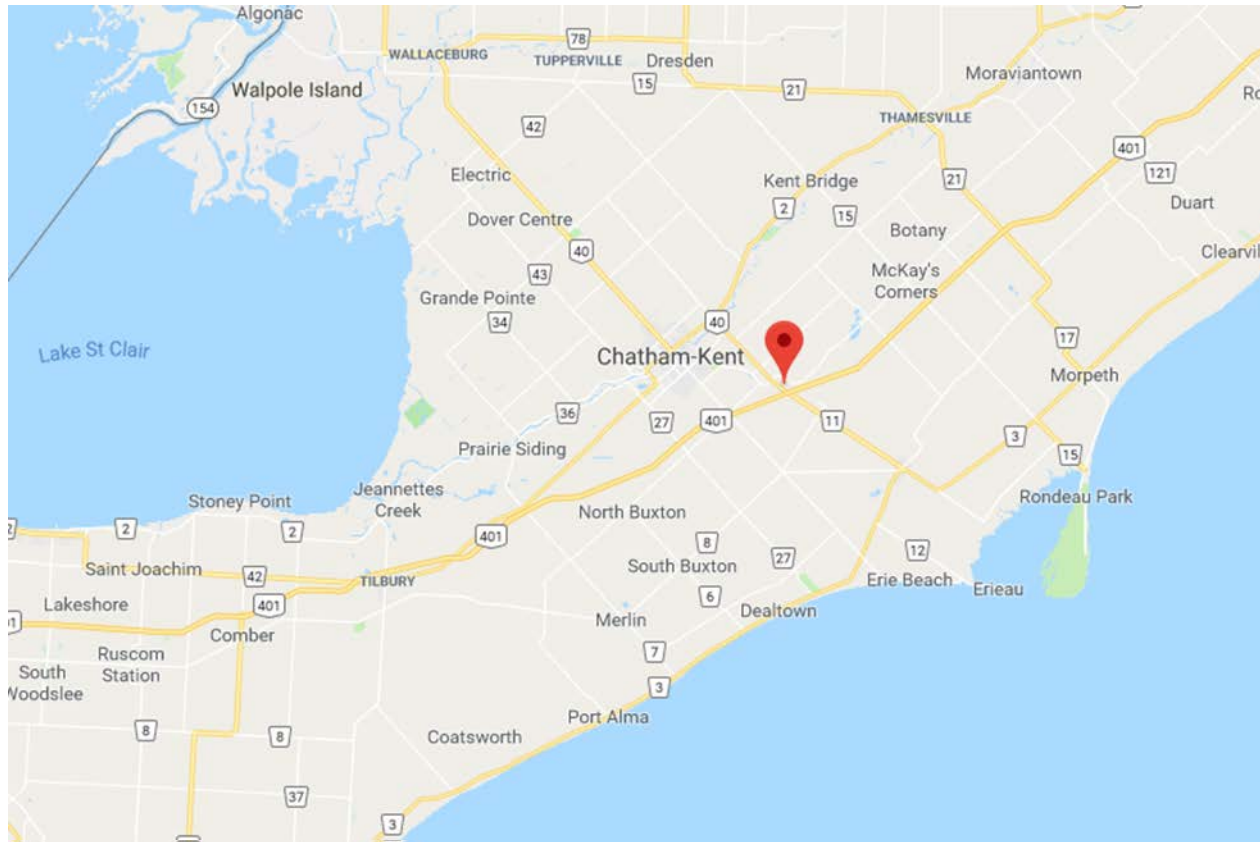
# New Contract Specifications

1. A Special Provision was created in 2018 to provide consistent direction to contractors when treating phragmites or other invasive/noxious vegetation species in ministry contracts by cutting and/or spraying.
2. Another Special Provision is being developed to provide direction to contractors on how to properly manage materials containing phragmites (ie. earth, soil or plant material from excavation)
  - In most cases, impacted material must be taken to landfill as non-hazardous solid industrial waste.
  - Currently exploring trial projects for burial of material within the highway right-of-way.

# New MTO Best Management Practice (BMP)

- MTO is in the early stages of developing a Best Management Practice (BMP) in an effort to limit the spread of phragmites along provincial highways.
- The BMP is intended to provide guidance to ministry staff, service providers and contractors on all aspects of the ministry's business including design, construction and maintenance.
- MTO has partnered with McMaster University and has provided funding for two research projects to provide MTO with best management strategies:
  1. Using high resolution remote sensing image data to map and scientifically assess the effectiveness of control methods.
  2. Research to test how native seed mixes affect phragmites seedling establishment.
  3. Both projects are due to be completed by the spring of 2019 and results will be shared on MTO's website once the reports are finalized.
- Relevant results from the research will be considered for incorporation into the BMP.

# Highway 401 / Highway 40 Interchange Phragmites Management Case Study











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# Questions?