

St. Thomas Plan of Action

Phragm Free City 2020



Phragmites australis

North America's most invasive species



Prepared for St. Thomas Phragmites Learning Symposium by David Collins, Chair,
St. Thomas Phragmites Control Committee

An environmental and ecological disaster



Lake
Margaret
from
west to
east





This is why we want
Lake Margaret to be
Phragmites free.



The view
of Lake
Margaret
from
most of
the
backyards



THE GRASSROOTS - WHERE IT ALL BEGAN

Spring 2011

- chat with neighbor employed in agriculture sector
- personal research into Phragmites
- casual conversations with several neighbours
- owners of lake and adjoining lands is a local home builder and they cut the Phragmites in fall

Fall 2012

- Phragmites has seriously blocked view of lake, prevented birds from nesting, hampered turtles from egg laying
- owners of lake and adjoining lands once again cut Phragmites in fall

July 2013

- owners of lake and adjoining lands communicated in writing Council that Phragmites cutting had ended
- residents notified by myself and Phragmites literature circulated, blog site created
- petition circulated asking Council "to form a citizen's committee to investigate methods to eradicate Phragmites australis and recommend a plan of action to be implemented" and 97 % signed
- Phragmites literature circulated to Council members
- Dr. Janice Gilbert toured Lake Margaret

January 2014

- Council created the Select Committee for Phragmites Control comprised of six citizens and resource personnel
- email address created with regular updates

February 2014

- first committee meeting

Developing a plan

The Phragmites Control Committee agreed that the Lake Margaret Watershed would be Year 1 of the plan as this area has multiple cells of Phragmites which are inflicting irreparable damage in a very sensitive environment.

Dr. Janice Gilbert was hired to create the Management Plan.

**INVASIVE *PHRAGMITES* MANAGEMENT PLAN
FOR THE CITY OF ST. THOMAS, ONTARIO**

**PHASE I
LAKE MARGARET, PINAFORE LAKE AND SURROUNDING AREA**



Lake Margaret, August, 2013.

July 6, 2014

St. Thomas Phase 1 - 2014 and 2015 Lake Margaret Watershed



Once the first location was selected, the method of mass eradication was investigated. Dover Agri-Serve was selected as preferred contractor. Mid September was selected as earliest eradication date. A public meeting was held. Mailings and home deliveries began.

Request for a Letter of Opinion from the Ministry of Natural Resources and Forestry was drafted. Both documents were submitted to, and approved by Council assuring Best Management Practices be followed.

All residents in the spray area were twice notified in writing of the spray date and precautions. Spray areas were signed. High Schools were notified to alter track team practices. Committee members were stationed to answer questions.

September 10, 2014 was initial spray date. Weathermax mixed with Soybean Oil was applied to all Phragmites growing on dry land. Spraying was concluded the next day.

Four weeks later all sprayed Phragmites was pronounced dead, was cut, removed from site and burned off site by Green Edge Property Maintenance. Spring 2015 will see an inspection of sprayed areas. Possible spot spray required.



WHAT IS OUR BUDGET?

Year 1

Management Plan development
Dover Agri-Serve
GreenEdge Property Maintenance

Total Cost shared equally by City of St. Thomas and Doug Tarry Homes was \$13,000.00

Year 2

Physical check and respray any new growth from year 1
Implementation of second year of Management Plan created by Dr. Gilbert
Implementation of first year of Management Plan created by Committee. Spray Hydro Corridor as priority
Meet spray company to determine corridor spray and cost for year 2

Budget allocated by City of St. Thomas is \$13,000.00

Year 3 and onward

Annual visual check and respray as required
Costs will go down with successful eradication but will be set at \$13,000.00 annually until 2020.

It should be noted that, since *Phragmites* has become so pervasive throughout Southern Ontario, total eradication on a site level is practically impossible. Seed and rhizome dispersal from uncontrolled sites, combined with human activity will ensure constant infestations. For this reason it is highly recommended that an ongoing monitoring and rapid response control program be implemented to ensure that *Phragmites* densities do not return to pre-control conditions. This can only be achieved by monitoring sites during the growing season and controlling new shoots by either mechanical (cutting, pulling) or chemical (backpack, handwicking) means. A reduction in these efforts/costs should be realized each subsequent year as control efforts throughout the region continue to expand.

A Phragmites Control Committee will endorse

Best Management Practices

which very clearly states that -

“EVERY possible care is taken to protect the native vegetation and wildlife.”



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Lake Margaret Phase 1 (2014) success



Phragmites growing in the water at the shore **cannot** be sprayed but was cut in the fall. Alternate plans are in the works.



Phragmites on dry land was treated, cut and removed. Every care possible was taken to prevent spray damage to adjacent vegetation.

St. Thomas Phase 1 Year 2 (2015)

Visual check for any regrowth in Lake Margaret, Butterfly Meadow, Hickory and Sauve Storm Water Management Ponds. Treat as necessary.

Perform initial eradication through Mill Creek to Pinafore Lake. Osprey Storm Water Management Pond is included.

Management plan has already been approved by City Council and MNRF.

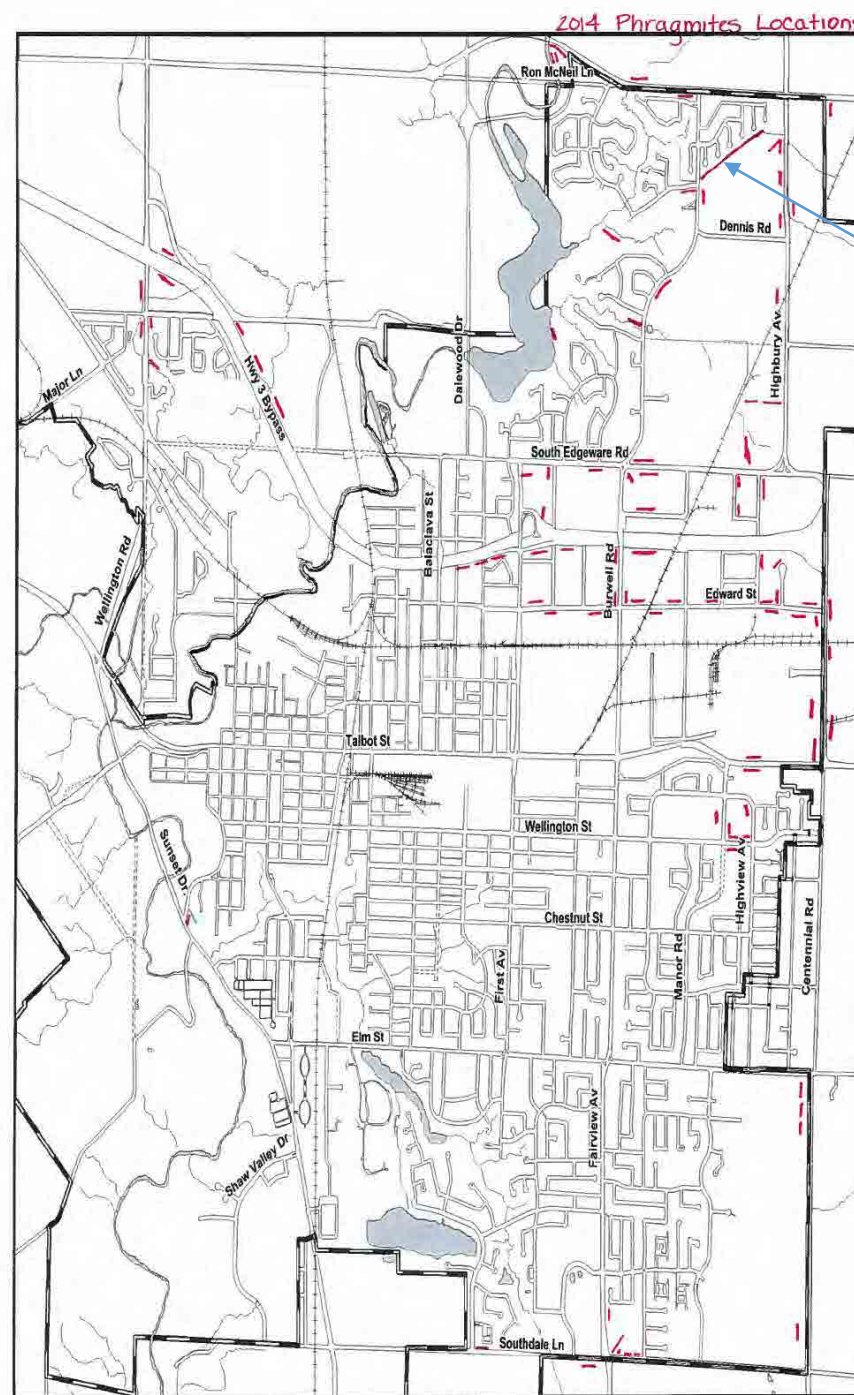
St. Thomas Phase 2 (2015)

Balance of City focusing on Hydro and road corridors, trails and parkland

The same spray will be used, but application process will be site specific. Best Management Practices will be in use. All applications will be completed by certified personnel.

A management plan has been approved by City Council and a request for Letter of Opinion forwarded to MNRF.

Phragmites
cells
identified
November
2014 within
the City of
St. Thomas



Dense stand of Phragmites in Hydro corridor presents a very high-risk fire hazard. This area is identified as Priority 1 for control and eradication in Spring 2015. Cut early, followed by pesticide spray at appropriate time, followed by another cut.

WANTED



EUROPEAN COMMON REED

AKA "PHRAGMITES"

* VOLUNTEERS NEEDED! *

THE MIGHTY PHRAGMITES

INVASIVE PLANT HUNT ROAD RALLY



Wednesday, August 21st, 2013
8:30am to 12pm
(Participants are asked to arrive by 9:30am)

Tooley Mills Park
Old Kingsmill Road
Clarington ON

What you need:

- A team of 2-3 people (children under 16 must be accompanied by an adult)
- a vehicle and camera

Your team will receive a guided tour from a Clarington to locate, photograph and identify Invasive Phragmites, a plant with many negative environmental impacts. Volunteers without access to a vehicle or camera will be put on a list with conservation staff.

Pre-Registration is required.

Participants will receive a free lunch.
For more information and to register, visit www.4000.com or call (905) 374-1477 ext 352



Clarington
Township of Clarington



Control Methods

Through much experimentation with:

- repeated cutting
- cut and roll
- drowning
- burning
- physical removal

Only one method has proven to have immediate eradication with long term non regrowth:

The use of an herbicide approved by the Pesticide Regulatory Management Agency, applied to vigorously growing Phragmites by a certified and registered sprayer. St. Thomas is using Weather Max mixed with Soybean Oil and hand sprayed by a certified company.

Trailer Spraying

Sites which can be easily accessed, such as dry roadside ditches and residential properties, can be controlled on foot using a spray unit secured to a trailer or pickup truck. This set up is more efficient than backpack units while also allowing for the same select spray application benefits.



CUT-WAIT-SPRAY

This is a simple control protocol in widespread use.

1. In the spring of Year 1 of a multi-year plan, when new growth is about a meter in height the Phragmites is cut. This will include the previous years growth which is now dead.
2. Wait until new growth is about a meter in height. Eradicate using a P.M.R.A. certified product as outlined in the Letter of Opinion approved by the Ministry of Natural Resources and Forestry(Weathermax or Arsenal).
3. Eradication success will be evident within 4 weeks.
4. Resume normal cutting.
5. Repeat process as necessary.

Areas of concern when spraying

In Canada the Pesticide Management Regulatory Agency has, to this point in time, not granted certification and registration to ANY herbicide which may be sprayed over or in close proximity to water. Products which may be used in these areas have been approved by the United States Environmental Protection Agency since at least 1999. Without the use of a certified and registered herbicide in Canada, *Phragmites australis* will never be eradicated and our beaches will disappear, our rivers will become barren and our irrigation canals will cease to provide water to crops.

Fire Services

Consultation with St. Thomas Fire Service led to the development of a strategy to fight Phragmites fires within the city. The service was consulted on the eradication plan for 2105 and asked for input into high risk fire sites. Their concerns were incorporated into the plan for 2015.

Subsequently, educational information has been provided to the Fire Co-ordinators of Ontario and the Elgin County Fire Chiefs through webinar and face to face presentations.



Residential encroachment
creates high risk of fire





Harsens Island

Walpole Island

In 2009, Ducks Unlimited mapped 12,000 acres of *Phragmites* around Lake St. Clair with more than 8,000 acres in the St. Johns Marsh, St. Clair Flats area of Clay Township alone.



Sarnia



Walpole Island

Police Services

Our local Police Service has been requested and have agreed, to have patrolling officers be aware of Phragmites at intersections.

Phragmites which restricts visibility at intersections and rail crossing will be reported to City Officials for immediate removal.



Phragmites which restricts visibility at intersections and rail crossing must be reported to City Officials for immediate removal.

Roads and Parks Departments

Crews will provide the manpower to cut the Phragmites and maintain road corridors according to City established protocols.

It may be necessary for crews to respond to an overgrown intersection or encroachment onto private property. This is to be established through City procedures.

Equipment cleaning procedures will need updating.

City Road Corridors



Any local Highway



If you wonder why there are so many car/deer collisions, you can't see the deer standing in the weeds. You can't avoid them, as they come out so quickly. (Sarnia Observer, October 3, 2014)

“causes a road safety hazard”
Invasive Species Fact Sheet
Invasive Phragmites
Government of Ontario



Clean Equipment Protocol for Industry

Inspecting and cleaning equipment for the
purposes of invasive species prevention



In partnership with the Peterborough Stewardship Council, the Ontario Invasive Plant Council has developed the [“Clean Equipment Protocol for Industry: Inspecting and Cleaning Equipment for the Purposes of Invasive Species Prevention”](#) to assist in preventing the spread of road and trailside invasive species.



What is our next step in the fight?

Annually report to Council

Offer presentations to local, interested groups

Encourage letters to appropriate Provincial and Federal Ministries to lobby the Pesticide Management Regulatory Agency for an effective and safe, over the water herbicide to eradicate Phragmites

Learning Symposiums hosted by local municipalities

Enhanced community education through the local newspapers and schools

Work closely with the Ontario Phragmites Working Group and encourage others to join

Affiliate with other groups with the same objective

Council initiated strategy would look like this

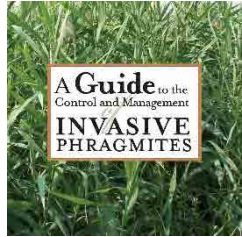
1. Recognize that there is a problem with Phragmites in the region.
2. Ask for citizens to be part of a Phragmites Control Team/Committee.
3. Offer resources from Parks and Recreation and Roads Departments as well as Conservation Authority. Create invasive species list.
4. Map the community, recording Phragmites cell locations.
5. Develop a Management Plan incorporating Best Management Practices.

6. Create and send a request for a Letter of Opinion to the Ministry of Natural Resources and Forestry.
7. Develop a cost analysis and allocate a budget.
8. Make sure necessary staff hold appropriate pesticide spray licenses or hire a certified company.
9. Commence mass eradication programme (not over water).
10. Assess success, move to year two.
11. KEEP COMMUNITY INFORMED AND EDUCATED.

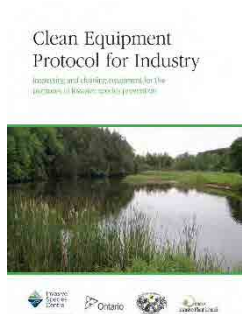
RESOURCES



St. Thomas Plan of Action - Phragmites australis, North America's Most Invasive Species - Prepared by David Collins, Chair, St. Thomas Phragmites Control Committee. Please request a copy at phragfreecity@outlook.com



www.michigan.gov/documents/deq/deq-ogl-ais-guide-PhragBook-Email_212418_7.pdf



www.ontarioinvasiveplants.ca/files/CleanEquipmentProtocol_Mar152013_D3.pdf