



**LAMBTON SHORES
PHRAGMITES
COMMUNITY GROUP**



Building Partnerships to deal with Invasive Phragmites australis

a “Grass Roots Perspective”

Nancy Vidler and Bill MacDonald, LSPCG



LSPCG

We are dedicated volunteers committed to working with other organizations and private landowners to restore wetland habitat and beaches

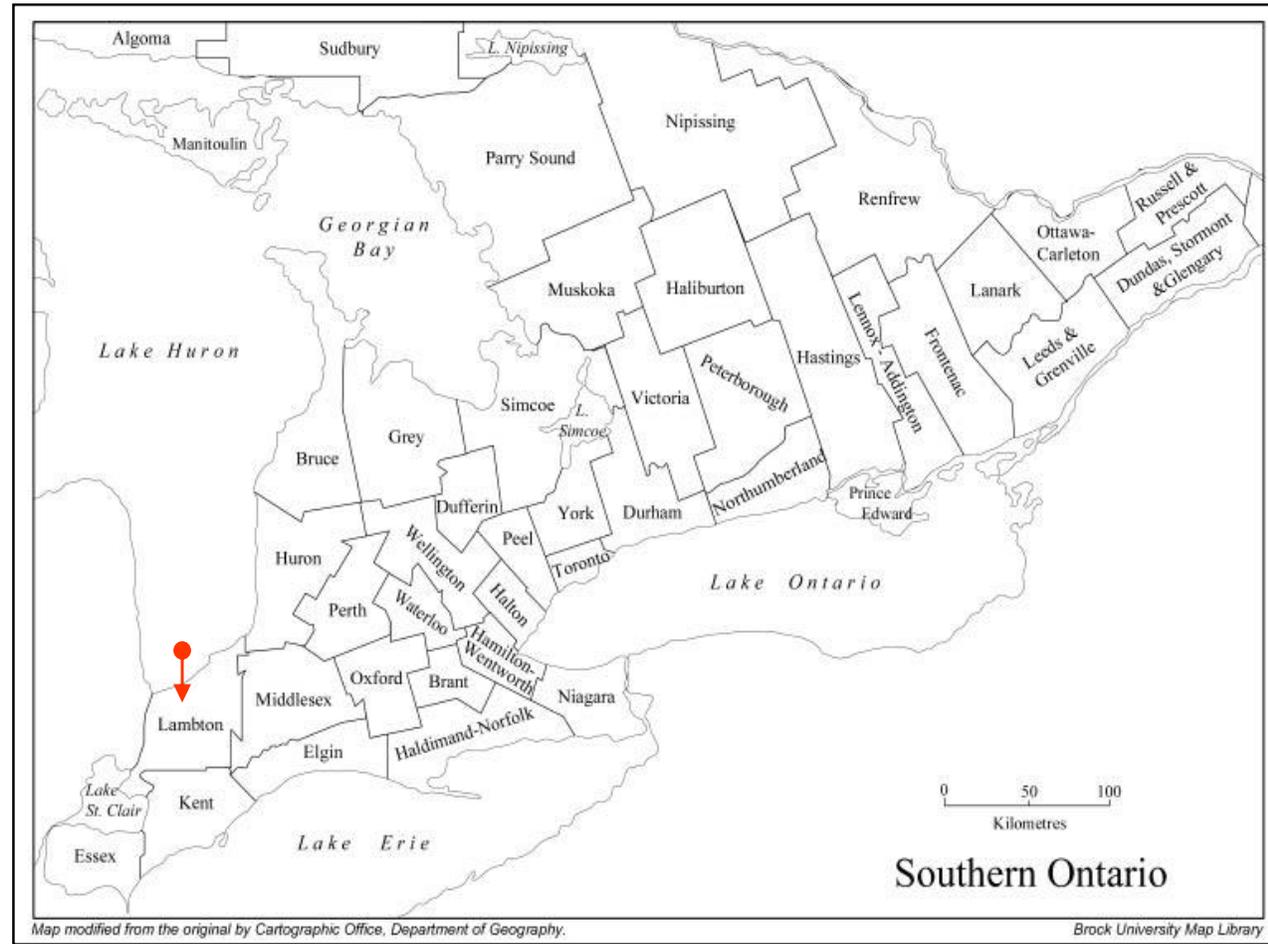
To date, restoration work has begun on over 300 acres along the shoreline and watersheds in Lambton Shores

Minister's Award for
Environmental Excellence

Honourable Mention for Environmental Achievement, 2013



Location of the Municipality of Lambton Shores within Southern Ontario





Port Franks Beach 2009



- **Role of Lake Huron Centre for Coastal Conservation**
- **Private Property**
- **Letter of Opinion, Species Inventory**
- **Hired contractor and recruited volunteers**

Port Franks beach remediation project



3 weeks later



9 weeks after spraying



- patches of Phrag greatly diminished
- native dune grasses not affected

18 weeks after spraying



- visible Phrag eliminated
- site now controlled by hand spading



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What we wanted to avoid





The Landscape



- **Mud Creek, Ausable River, Private Property, roadsides**
- **Municipality of Lambton Shores, Ausable Bayfield CA, Property Owners**
- **Nature Conservancy Canada**





Demonstration project



Mosquito Island
August 2010
Completely infested with Phragmites



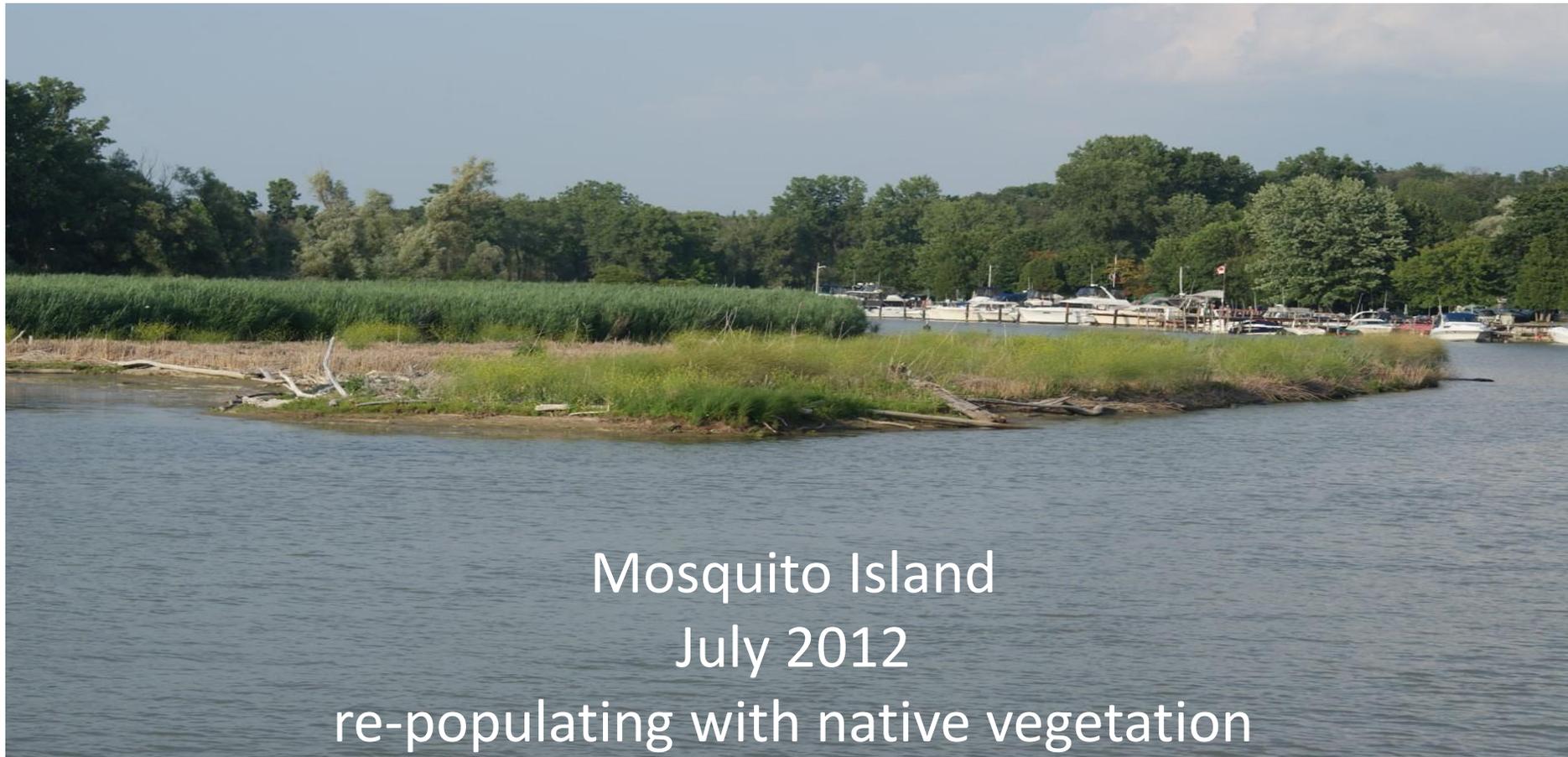
Demonstration project



Mosquito Island
April 2012
after Spraying & Cutting



Demonstration project



Mosquito Island
July 2012
re-populating with native vegetation



Other Shoreline Projects

- The Invasive *Phragmites* Management Plan for the Municipality of Lambton Shores adopted by council
- Initiated projects in other shoreline communities
- Municipality committed to managing *Phragmites* on their property and coordinated roadside work to coincide with shoreline



Lambton County

- Mayor and Deputy Mayor took concerns to County in 2012
- Contacted by Manager of Public Works
- Phragmites was “prolific” and an increasing concern for drainage and maintenance
- PW directed to develop a “Control Strategy” for consideration in 2013 budget
- Expressed interest in learning more about roadside control
- Hired a student in 2012 to map occurrence
- Attended our Community Information Session
- Experimented with an “Eco Blade”



Building Relationships-Lambton County

A meeting was held in December 2012

- **for the first time, the municipality and the County began sharing their ideas for roadside control**
- **we stressed the importance of cleaning heavy equipment to avoid spreading *Phragmites* and the importance of proper disposal of contaminating materials**
- **they later attended a workshop we hosted called “*Building Capacity for a Municipal Response to Invasive Phragmites australis*”**



Building Relationships-Lambton County





Building a Relationship with Agriculture

OFA recognizes the importance Phragmites control in drainage ditches

“OFA wants to rid Ontario of Canada’s most invasive plant

OFA....is taking key recommendations to the Ontario government, centred around four action items to reduce the impact of this invasive species. These recommendations include emergency use permits for herbicides, approval of aerial treatment application, establishing a province-wide control program and establishing an Invasive Species Act for Ontario” -Sept. 26, 2014 OFA news release



Information for Agricultural and Rural Landowners

With the financial support of our partner Grand Bend Community Foundation, we partnered with the Ausable Bayfield Conservation Authority to map upstream Phragmites infestations in our watersheds and prepare information targeting the agricultural and rural landowner community. We were then able to implement a management plan for this area.

We created a Fact Sheet which explained Phragmites' impact, offered identification tips and detailed control information.

Two public information sessions were held where expert speakers provided detailed information and answered landowner's questions.



LAMBTON SHORES PHRAGMITES COMMUNITY GROUP

Information for Agricultural and Rural Landowners

COMMUNITY INFORMATION SESSIONS
7:00 TO 9:00 PM
FREE!
Expert speakers, practical solutions and refreshments
Wednesday, August 5, Grand Bend Community Health Centre, 69 Main St. E., Grand Bend
Thursday, August 6, Legacy Centre, 16 Allen St., Thedford
Opening Remarks: Don McCabe, President, OMA
For more info, contact Ausable Bayfield Conservation Authority at 1-888-296-2636 or www.abca.on.ca

FACT SHEET Controlling *Phragmites australis* (European Common Reed) in Agricultural and Rural Areas

What is Phragmites?

Phragmites is an aggressively spreading invasive grass capable of reaching heights greater than 5 m and densities of over 200 plants per square metre. In 2009 it was recognized as Canada's worst invasive plant by scientists at Agriculture and Agri-Food Canada.



Lambton Shores Phragmites Community Group

Why is Phragmites a concern in agricultural areas?

If left uncontrolled, Phragmites can develop into a dense mass that clogs drainage tiles and ditches, impeding water flow and causing flooding. Old stalks are resistant to decay and can remain for several years, further impeding water flow if not removed.



Lambton Shores Phragmites Community Group

Phragmites is spreading along roadside ditches and municipal drains, interfering with water flow.



Same roadside ditch after herbicide application & excavating

Controlling Phragmites on the Farm

Phragmites control options are site specific and may include a combination of herbicide application, excavation, cutting or burning.

Timing is Everything

Regardless of the control method selected it is important to note that animals, including nesting birds, turtles, frogs, toads, or snakes, may be present on the edges of Phragmites cells, and timing control activities to reduce potential harm or mortality should be a consideration.

Cutting

- Although cutting will not cause Phragmites mortality, it may slow growth, reduce stand density and reduce seed head development
- If this method is selected as a management option, a regular cutting regime must remain in place for perpetuity, since the plants can grow quite rapidly and dense cells can re-establish once cutting discontinues

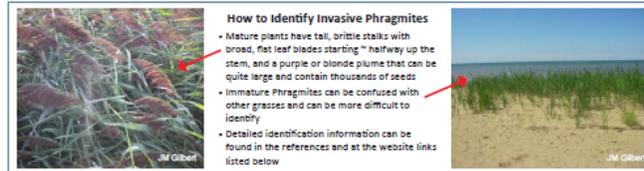
Herbicide Application

- Mortality rates of between 70 – 95% can be expected after one treatment and complete control can be expected after two treatments for most sites
- Depending upon the site conditions, control can be undertaken using conventional equipment such as boom sprayers
- Allow at least three weeks after herbicide application before cutting, burning or excavation activities take place to ensure the chemical has time to be effective
- If plants are to be treated before they reach full height it is highly recommended that the standing dead plants be flattened or cut prior to the growing season, to increase herbicide contact with live plants and reduce product waste

Disposal

- There are many benefits to removing dead plant material including restoring water flow and native vegetation
- For more information on proper disposal refer to "Smart Practices for the Control of Invasive Phragmites along Ontario's Roads" – Ontario Phragmites Working Group

Fact sheet created by:



How to Identify Invasive Phragmites

- Mature plants have tall, brittle stalks with broad, flat leaf blades starting 1/2 way up the stem, and a purple or blonde plume that can be quite large and contain thousands of seeds
- Immature Phragmites can be confused with other grasses and can be more difficult to identify
- Detailed identification information can be found in the references and at the website links listed below

Herbicide Control Information

With proper timing, concentration and application methods, Phragmites mortality can be accomplished using herbicides effectively, efficiently and environmentally responsibly. Currently there are only two products legally available in Canada to control *Phragmites australis*: WeatherMAX® (registration No. 27487) and VisionMAX (registration No. 27736). It is important to note that neither product can be applied over water.

- The recommended concentration of either product for the control of Phragmites is 4.5% – 5% by volume
- It is highly recommended that the surfactant MSO Concentrate Methylated Seed Oil (Adjuvant commercial, active ingredients 70% methylated soybean oil, Registration No. 28385) also be added at a 1% concentration to increase plant uptake and improve herbicide efficacy
- Timing for herbicide application is anytime after the plants have reached at least 1.5 m in height (when there is sufficient leaf surface for herbicide interception) up until natural senescence, which takes place mid to late fall; plant growth responses are driven by weather and site specific conditions

STOP Currently there are no herbicides available in Canada to control invasive Phragmites growing in water.

Phragmites Impacts on Non-agricultural Areas

- Native plant species cannot effectively compete against Phragmites which severely alters wetlands and other sensitive habitats
- Hundreds of hectares of habitat are now infested with Phragmites
- While wildlife may use the edges of a Phragmites cell the interior sections are effectively dead zones
- A high number of Species at Risk are negatively impacted
- Phragmites can grow so tall and thick that cells become effective barriers along shorelines greatly impacting recreational access, aesthetic enjoyment and property values
- During the dormant period the standing dead biomass presents a significant fire hazard to infrastructure and residential areas
- Phragmites creates safety hazards along roads by blocking sight lines



Lambton Shores Phragmites Community Group

More Information about Phragmites

- There are no natural controls to keep Phragmites in check
- Phragmites is a strong competitor for nutrients and can survive and even thrive in a wide variety of conditions
- It is allelopathic, exuding chemicals from roots that harm other plants
- Below ground the rhizomes and roots can develop into a dense, thick mat several metres thick
- Its typical growth habit is to develop into dense, mono-culture cells, even where it grows naturally in Europe

Stop the Spread

- Phragmites colonizes new sites via seeds, rhizomes, stolons
- Seeds can be dispersed by winds up to a 10 kilometre radius
- Seed germination rates tend to be low, but this increases where plants are growing in high nutrient sites
- Humans are the main spread vector, moving Phragmites throughout the province on contaminated heavy equipment
- Farmers can help stop the spread of Phragmites into creeks, wetlands, beaches and other sensitive habitats by controlling this plant on their properties

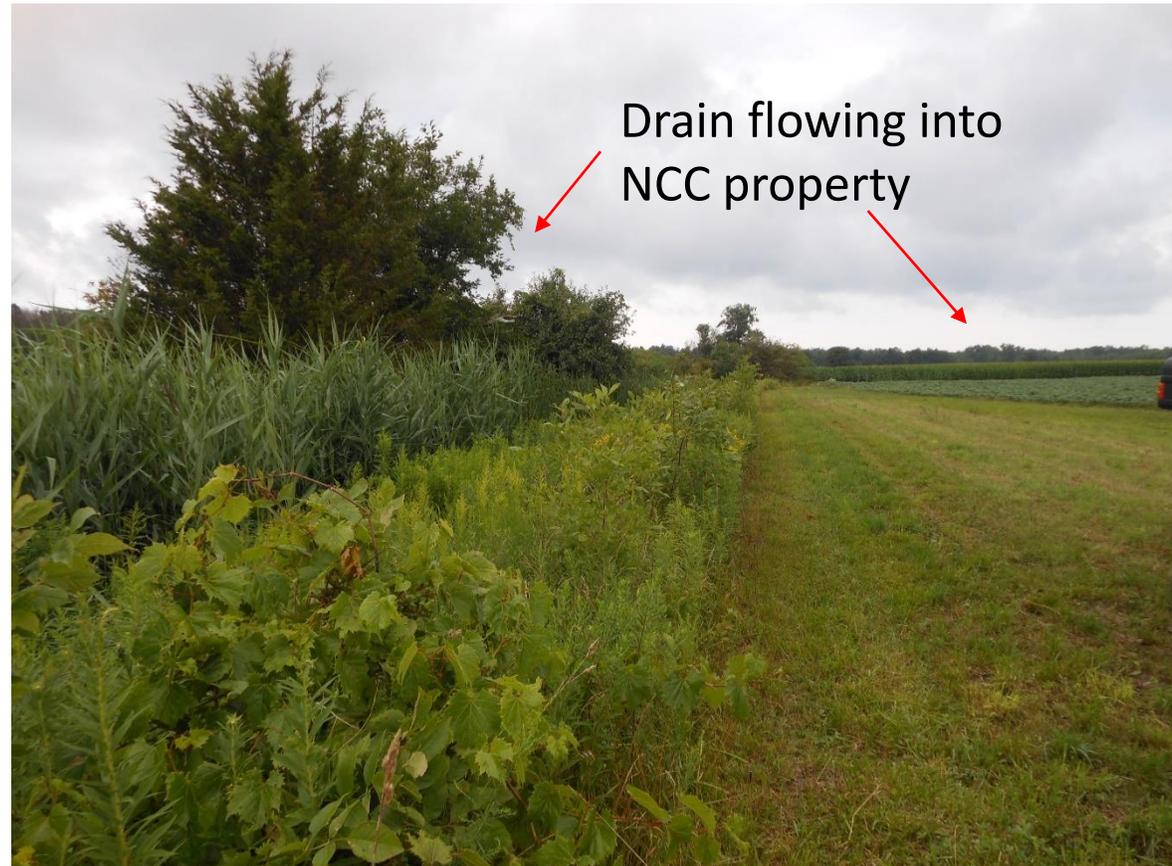
For more information please refer to:
Ontario Invasive Plant Council and Ontario Phragmites Working Group: <http://www.opwg.ca/>
Great Lakes Phragmites Collaborative: <http://greatlakesphragmites.net/>

Ministry of Natural Resources & Forestry: <http://www.ontario.ca/document/invasive-phragmites-best-management-practices>

Disclaimer: The information provided in this publication is provided for educational and informational purposes only. The document is believed to be accurate at the time it was produced (April 2016) and is subject to change. It may not cover aspects of your particular situation. All control methods and management must be done in compliance with applicable legislation. Under no circumstances shall the Lambton Shores Phragmites Community Group, Ausable Bayfield Conservation Authority, Nature Conservancy of Canada and/or Grand Bend Community Foundation be held liable for any loss or damage (including any type of damage), which may be attributable to the reliance on and use of this publication.



Building Relationships Agriculture





Building Relationships Agriculture

Roadside Phragmites



Same area after control measures





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Lesson Learned

The importance of Partnerships



THE MUNICIPALITY OF
LAMBTON SHORES



Ontario



COUNTY OF
LAMBTON



GRAND BEND
COMMUNITY
FOUNDATION





Other Lessons Learned

The Importance of:

- **Education**
- **Communication**
- **Community Involvement and help with monitoring**
- **Mapping and a Management Plan**
- **Support of experts**
- **Landscape approach**
- **Site visits**
- **Media support**
- **5 year permits**



More Lessons Learned

- **Planning for “touch up” in all projects**
- **Stress the cost- What happens if NO action?**
- **Demonstration project**
- **Education and training for front line staff**
- **Early detection and rapid response**
- **Solution focus**

11 Key Elements (Management Plan)

1. Understand the scope of the problem
2. Establish a Program Coordinator Position
3. Acquire sufficient funds
4. Implement an education program
5. Engage the local community
6. Ensure appropriate initial control efforts and follow up on control measures used

Key Elements

7. Institute a long term control program
8. Track activities, efficacy, successes, challenges
9. Designate Phragmites as a noxious weed
10. Expand control program outside of Municipal jurisdiction
11. Availability of herbicides appropriate for aquatic environments use



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