

# Controlling *Phragmites australis*: Light at the end of the tunnel

Ontario Invasive Plant Council Conference and AGM  
Canadian Canoe Museum, Peterborough, ON  
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Rondeau Provincial Park, October 2012

J.M. Gilbert





Bruce Dale Conservation Area, Lake Huron, July 2015



# Presentation Outline:

- Background information
- Invasive Phragmites Control Centre
- Cutting Program



# Background Information cont'd

- Perennial grass
- Clones long lived; evidence of persisting >1000 yrs in Europe
- Spreads into new areas through seed dispersal, rhizomes, stolons and stems
- Easily establishes in disturbed sites





Kettle Point, Lake Huron, March 2012





Detroit River, May 2011 (M. Gartshore)



Rondeau Provincial Park, Lake Erie, September 2012







Wood Drive B1 Aug 1 2017



Sturgeon Creek Wetland, Lake Erie, July 2014







North Bruce shoreline, Lake Huron, June 4, 2015

J.M. Gilbert



# Background Information cont'd:

- Once established spreads predominantly underground through rhizomes
- Up to ~200 stems/m<sup>2</sup>
- Rhizomes observed at 10m depths
- Exponential growth in colony size





St. Joseph Island, Lake Huron, August 2011

J.M. Gilbert







# Background Information cont'd:

- Wide tolerance of habitat conditions:
  - brackish to freshwater
  - >1m water depth to >10 m above water table
  - low to high nutrient sites
  - pH 4.8 – 8.2
  - cool temperate to tropical desert

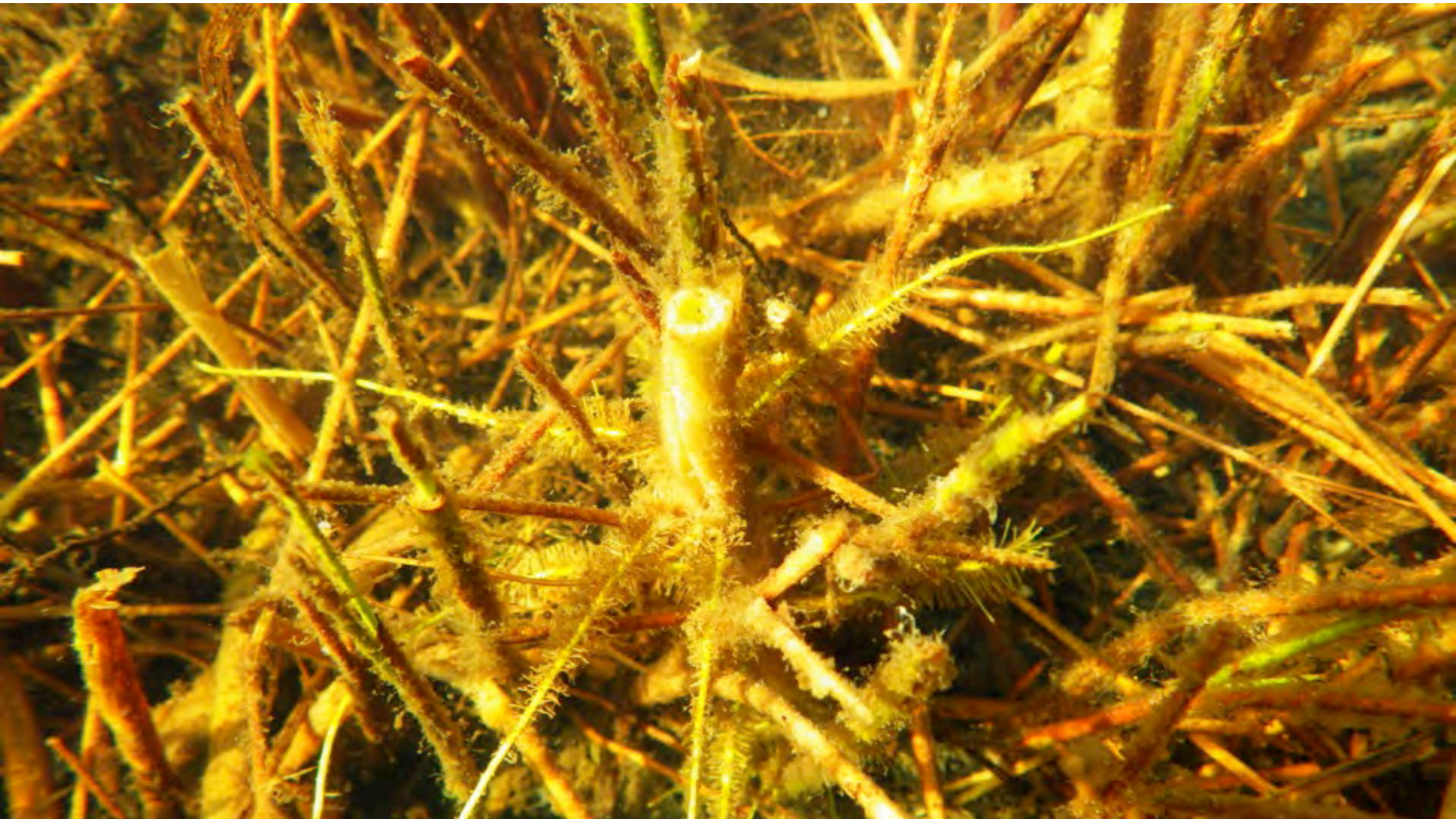




Crown Marsh, Long Point Bay, Lake Erie, July 2008



➤ Cutting to drown





# Non-chemical Control Options

## ➤ spading



## ➤ raspberry cane cutting



Oliphant, Lake Huron, September 26, 2017





Bruce Dale Conservation Area, Lake Huron, July 20, 2015





Wood Drive Coastal Wetland, Municipality of Lambton Shores, August 2015





Wood Drive Coastal Wetland, Municipality of Lambton Shores, August 2015



Before cutting  
August 2015

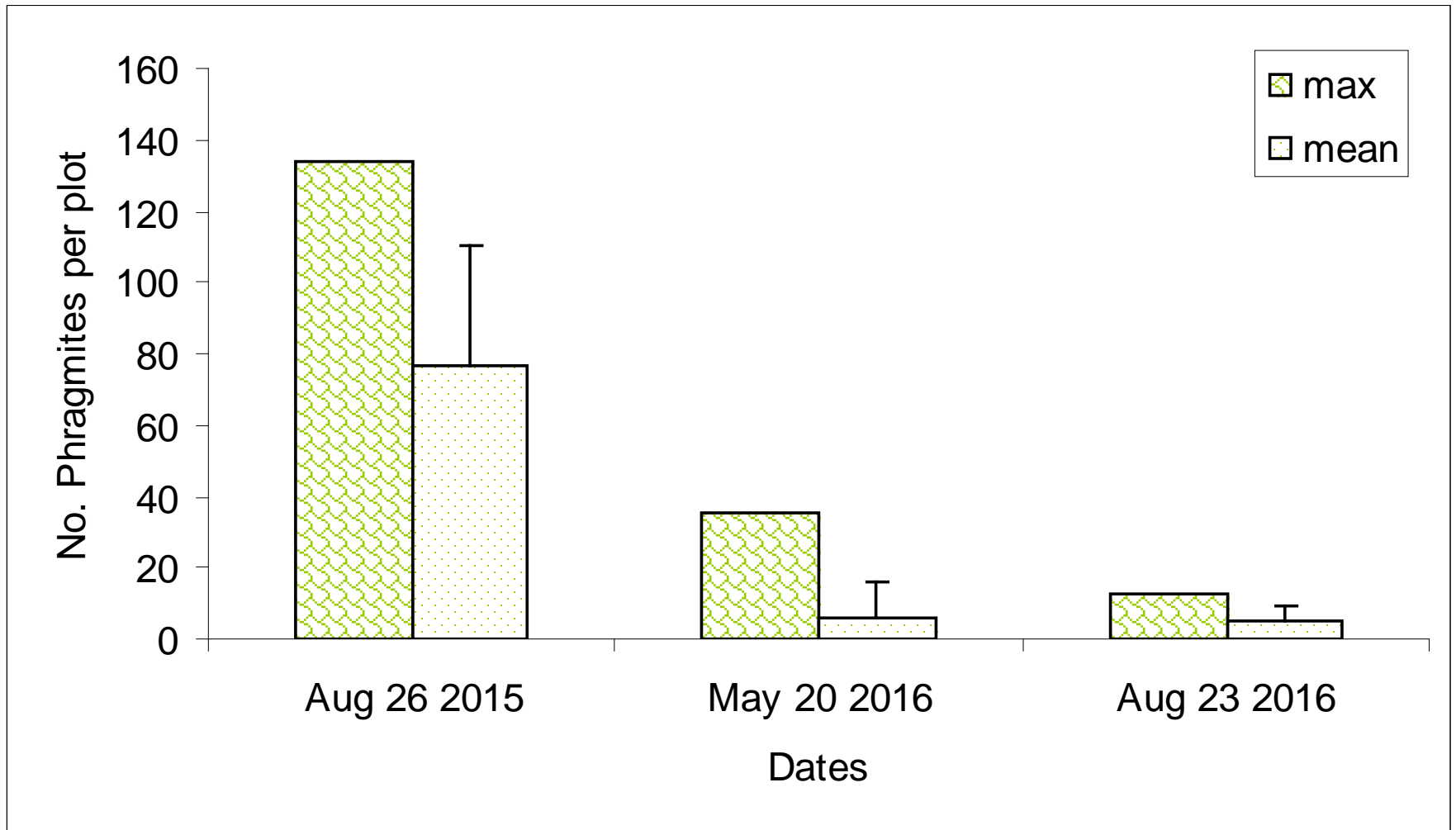


After cutting  
August 2016





Number of Phragmites plants per plot in August 2015 before cutting, May 2016 after one cutting event and August 2016 after two cutting events.





# Invasive Phragmites Control Centre

Est. 2017

- Not-for-profit organization
- emphasis on promoting site specific, appropriate control actions
- focus on restoring challenging sites (coastal areas, Species at Risk habitat, wetlands)





# Invasive Phragmites Control Centre

1. Research and Development
2. Program Support: monitoring, education, workshops, management plan development, control program management
3. Control Services: Herbicide and Cutting



# IPCC: Cutting Program

➤ Truxor amphibious machine



Oliphant, Lake Huron, September 15, 2017



# Invasive Phragmites Control Centre Cutting Program

2017

1. Wood Drive Coastal Wetland: Lambton Shores Phragmites Community Group
2. Lambton Centre
3. Kettle and Stony Point First Nation
4. Municipality of Kincardine
5. Brucedale Conservation Area: Lake Huron Centre for Coastal Conservation/Saugeen Valley CA/ Enbridge
6. Oliphant: Bruce Peninsula Biosphere Assoc., Friends of Oliphant
7. Manitoulin Is.- Judith Jones, Wiikemkoong FN
8. Long Point, Lake Erie (winter cutting)

➤ ~ 140 tonnes cut and removed



# IPCC: Cutting Program 2018

➤ 2 Truxors



Manitoulin Island, August 14, 2018







# Invasive Phragmites Control Centre: Cutting Program

2018

1. Wood Drive Coastal Wetland: Lambton Shores Phragmites Community Group
  2. Lambton Centre
  3. Kettle and Stony Point First Nation
  4. Municipality of Kincardine
  5. Brucedale Conservation Area: Lake Huron Centre for Coastal Conservation/Saugeen Valley CA/ Enbridge
  6. Oliphant: Bruce Peninsula Biosphere Assoc., Friends of Oliphant
  7. Manitoulin Is.- Judith Jones, Wiikemkoong First Nation
  8. **Fish Islands, Oliphant**
  9. **Nawash First Nation**
  10. **Baie du Dore coastal wetland: Bruce Power, Ontario Power Generation**
  11. **Honey Harbour: Georgian Bay Forever**
  12. **Saugeen First Nation**
- ~ 310 tonnes cut and removed





Lambton Centre United Church Camp, Lake Huron, September 2017





Manitoulin Island, August 14, 2018





Oliphant, Lake Huron, August 9, 2018





Oliphant, Lake Huron, September 14 2017





Oliphant, Lake Huron, September 14 2017





Wood Drive, Lake Huron, September 16, 2017





Wood Drive, Lake Huron, July 27, 2018





Oliphant Fishing Islands, August 8, 2018





Oliphant Fishing Islands, August 8, 2018





Oliphant Fishing Islands, August 8, 2018





Oliphant August 8, 2018



## ➤ Stihl brush cutters



Manitoulin Island, August 13, 2018





Oliphant, Lake Huron, August 9, 2018





Wood Drive, Lake Huron, July 23 2018





Lambton Centre, Lake Huron, August, 2012





Lambton Centre, Lake Huron, August, 2012





Lambton Centre, Lake Huron, August 13 2017





Lambton Centre, September 7, 2017





Lambton Centre, July 18, 2018





Lambton Centre, July 18, 2018





Brucedale Conservation Area, Lake Huron, July 20, 2015





Brucedale Conservation Area, Lake Huron, July 20, 2015





Brucedale Conservation Area, Lake Huron, July 20, 2015





Bruce Dale Conservation Area, Lake Huron, July 20, 2015





Brucedale Conservation Area, Lake Huron, July 21, 2015





Brucedale Conservation Area, Lake Huron, July 6, 2016





Brucedale Conservation Area, Lake Huron, August 24, 2017





Brucedale Conservation Area, Lake Huron, August 1, 2018





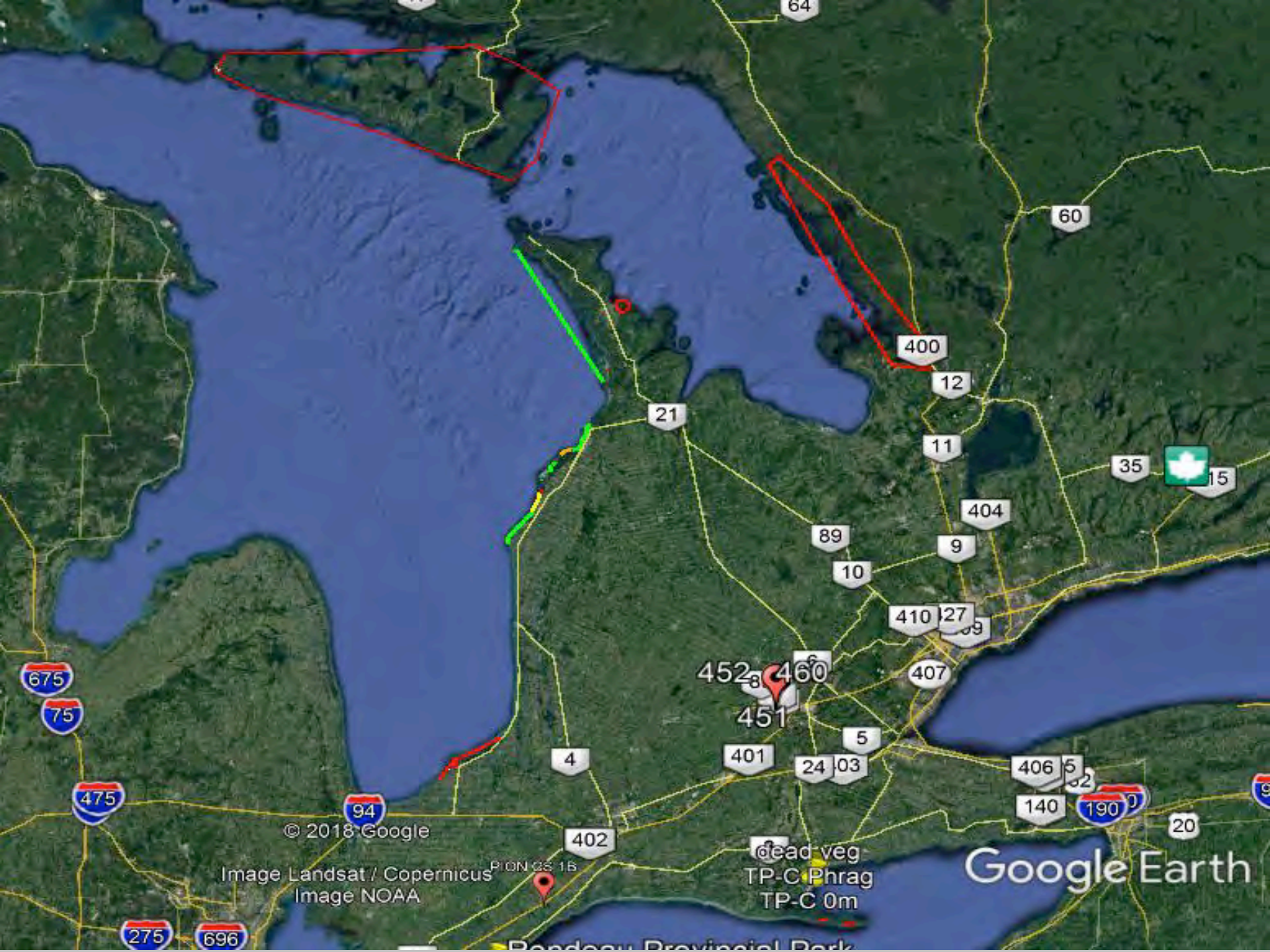
Brucedale Conservation Area, Lake Huron, September 14, 2018





Municipality of Kincardine staff removing piles of cut invasive Phragmites from the Brucedale CA shoreline, September 12, 2017.





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Image Landsat / Copernicus  
Image NOAA

PION 03 1B

dead veg  
TP-C Phrag  
TP-C 0m

Google Earth

Rondeau Provincial Park



# Challenges

- Water depths: not always sufficient to drown plants
- Lack of Tools: no herbicides available to control Phragmites in wet sites
- Funding: programs cut including National Wetland Conservation Fund (Federal), Great Lakes Guardian (Provincial)
- Lack of public education/awareness




Is this the next problematic invasive?





# Questions?

A black and white goat is shown from the chest up, facing the camera. It has a white body and a black face with long, dark, curved horns. It is holding a piece of green grass in its mouth. The background is a dense field of tall green grass and some dry stalks. A white thought bubble with a black outline is positioned above the goat's head, containing the text "I hope this stuff isn't fattening".

I hope this stuff  
isn't fattening