

Invasive Phragmites

Collaborating to Address the Threat

Wetland Restoration via Phragmites Control in the
Long Point Region

Ontario Phragmites Working Group AGM
January 29, 2019

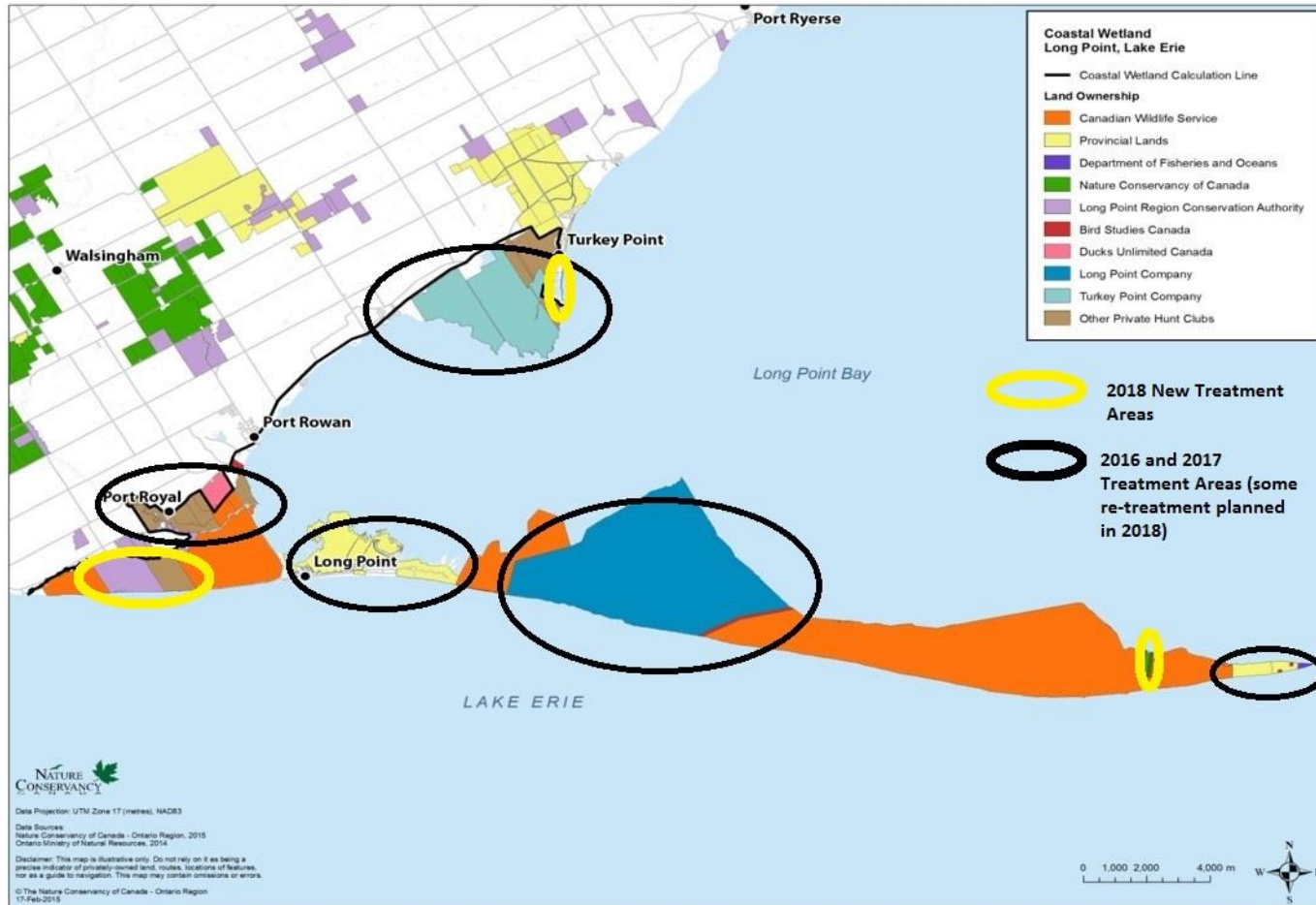


Phragmites (*Phragmites australis*)

- Perennial grass; spreads by seed, rhizome, stolon
- Forms dense stands that choke out other vegetation; inhospitable to wildlife
- Allelopathic; nutrient competitor
- Canada's worst invasive plant (P. Catling, 2005, Agriculture and Agri-food Canada)
- European native – no natural controls in North America



Phragmites Control in the Long Point Region



NCC's Role

- Support the MNRF-led application for Emergency Use Registration of glyphosate (RoundUp Custom) for use in aquatic habitats
- Leading the control work on private lands in Long Point region – aerial and ground
- Support and deliver aspects of Communication and Monitoring Plans
- Support and participate in the **Long Point Phragmites Action Alliance** (LPPAA)

Tools of the Trade

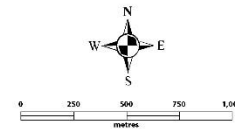


Aerial Treatment



COMMON REED, AERIAL TREATMENT SITES, LONG POINT COMPANY

- Parcel Network
- Flight Line
- Common Reed
- Aerial Treatment Site (13.71 ha/ 33.88 ac)



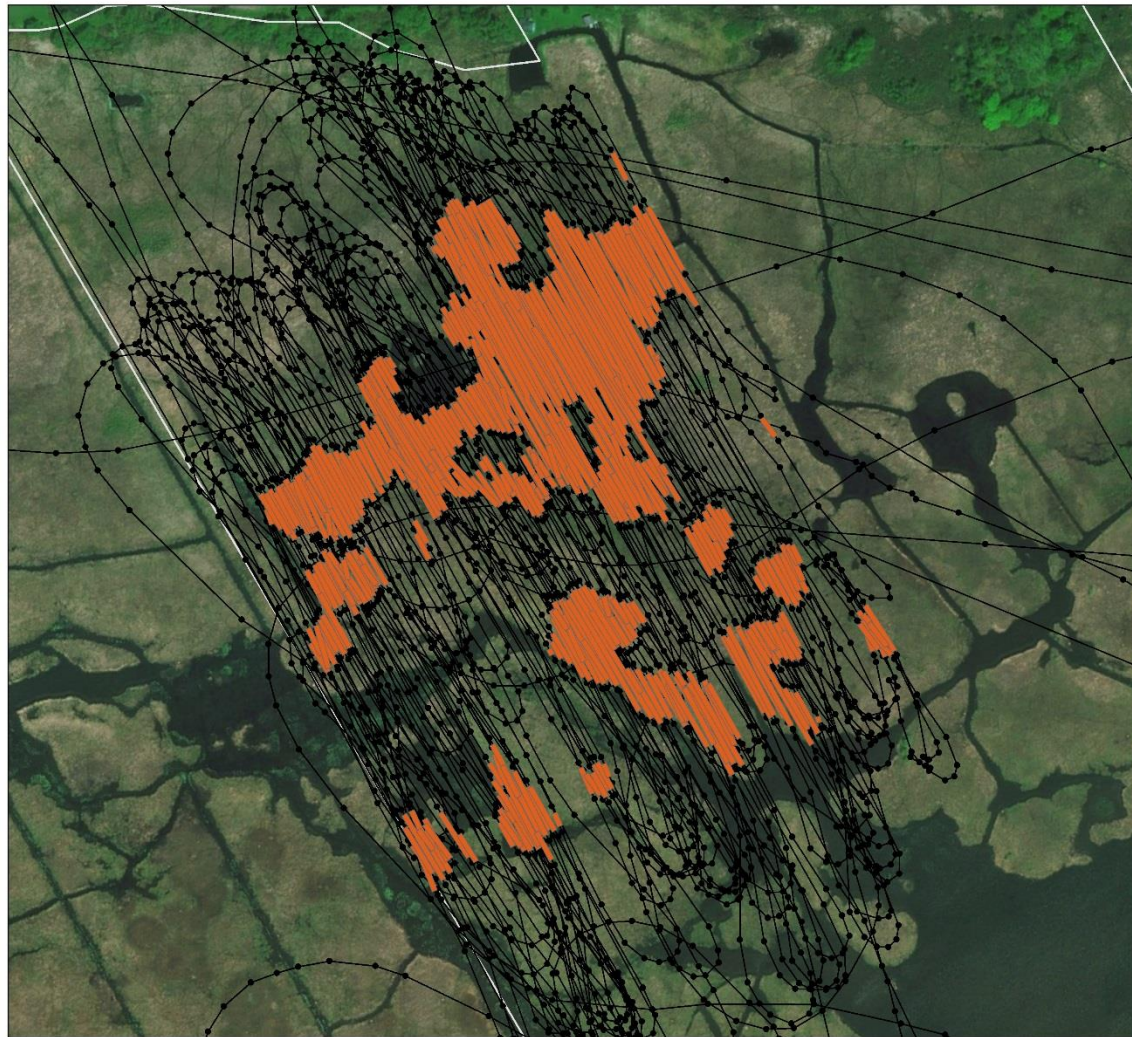
This map is illustrative only. Do not rely on it to make a precise prediction of the results of aerial treatment. Location of features, size and shape of features. This map may contain errors or omissions. No warranty is made.

Data Sources:
Natural Resources of Canada - Ontario Region, 2018
Ontario Ministry of Natural Resources and Forestry, 2018
ESR, 2018

September, 2018

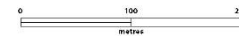


Aerial Treatment



COMMON REED, AERIAL TREATMENT SITES, THE FLIGHT MARSH LIMITED

-  Parcel Network
-  Flight Line
-  Aerial Treatment Site (10.75 ha/ 26.56 ac)

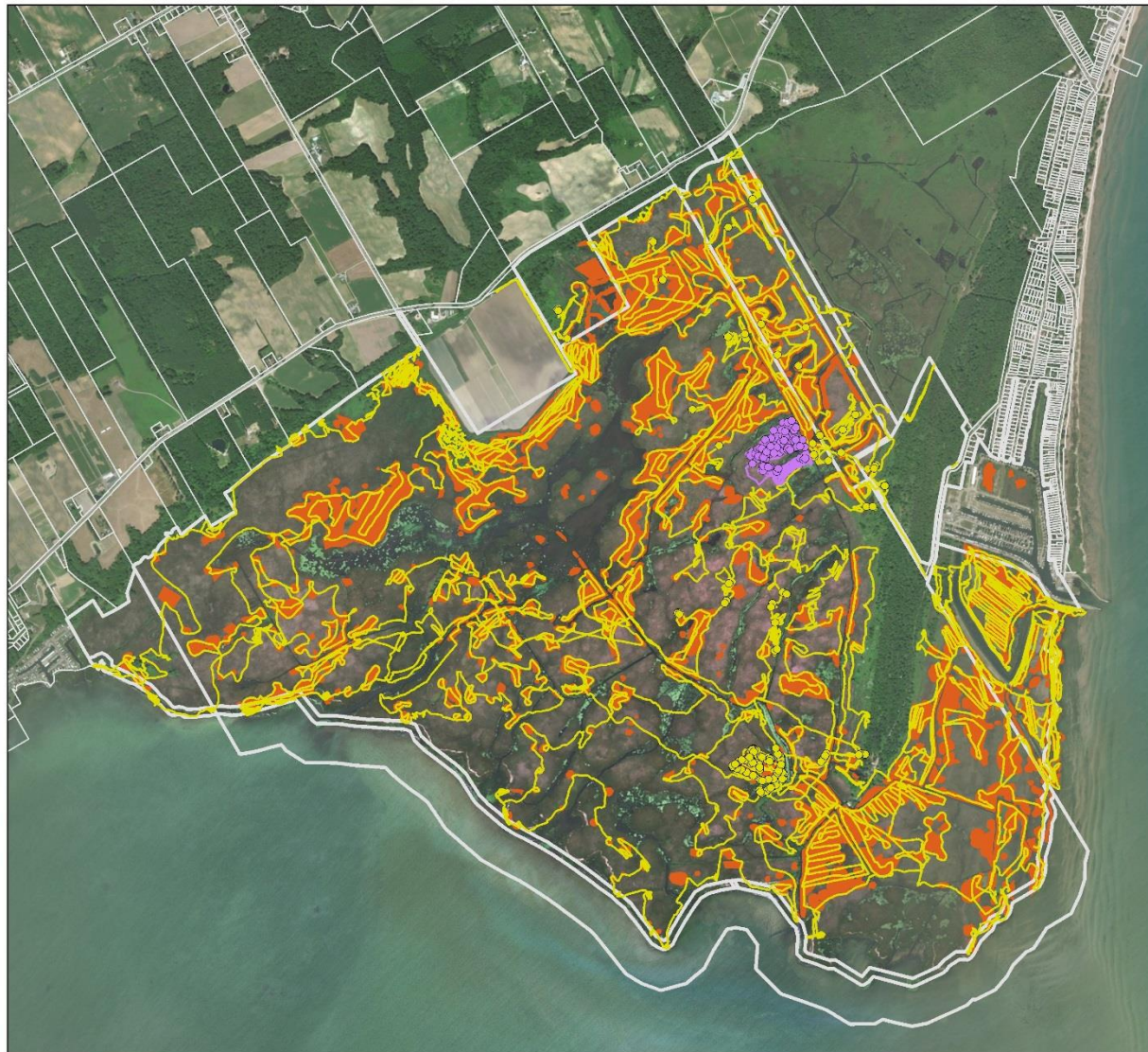


This map is illustrative only. Do not rely on it as being a precise indicator of property ownership, nature, location of features, nor as a guide to navigation. This map may contain inaccuracies or errors. Not survey grade.

Data Source:
Nature Conservancy of Canada, Ontario Region, 2018
Ontario Ministry of Natural Resources and Forestry, 2018
NRCO, 2018
September, 2018

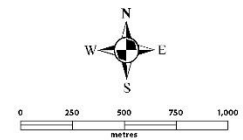


Ground Treatment



PHRAGMITES AUSTRALIS GROUND TREATMENT, TURKEY POINT

- Property Boundary
- Phragmites Australis
- New Treatment Area**
 - Ground Treatment Site - Hand Spray
 - Ground Treatment Site - Marsh Master
- Retreatment Area**
 - Ground Treatment Site - Hand Spray
 - Ground Treatment Site - Marsh Master



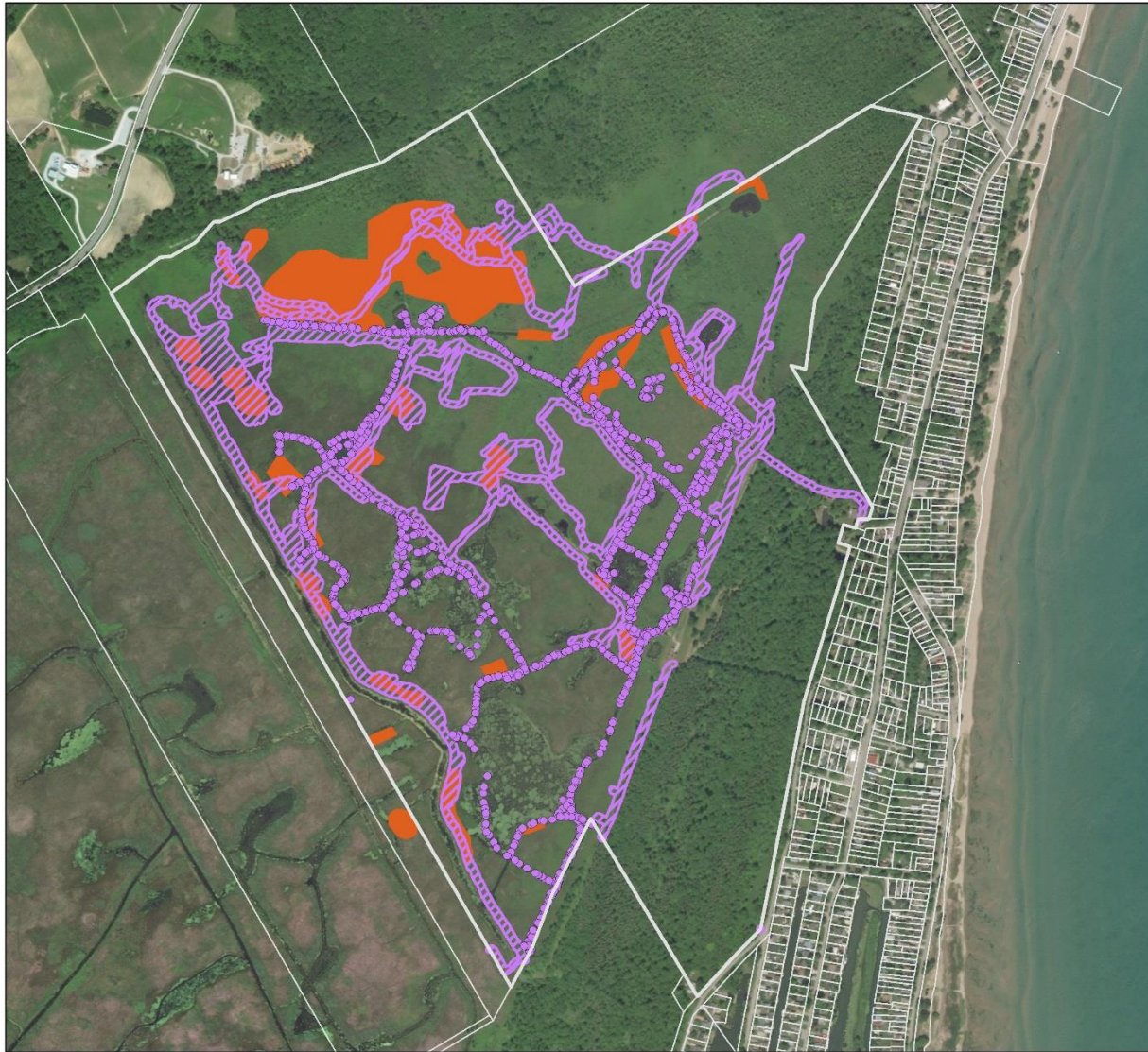
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Data Sources:
Nature Conservancy of Canada - Ontario Region, 2015
Ontario Ministry of Natural Resources and Forestry, 2015
ESRI, 2015

October 25, 2018

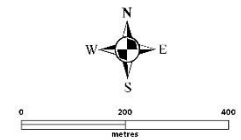


Ground Treatment



PHRAGMITES AUSTRALIS GROUND TREATMENT, TEEPEE FARMS

- Property Boundary
- Phragmites Australis
- New Treatment Site
 - Ground Treatment Site - Hand Spray
 - Ground Treatment Site - Marsh Master



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Editor: NATURE
Nature Conservancy of Canada - Ontario Region, 2018
Cartography: Ministry of Natural Resources and Forestry, 2018
November 5, 2018

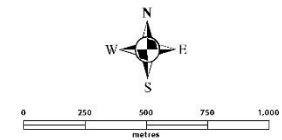


Ground Treatment



PHRAGMITES AUSTRALIS GROUND TREATMENT, LOWER BIG CREEK

- Property Boundary
- Phragmites Australis
- Retreatment Site
 - Ground Treatment Site - Hand Spray
 - Ground Treatment Site - Marsh Master

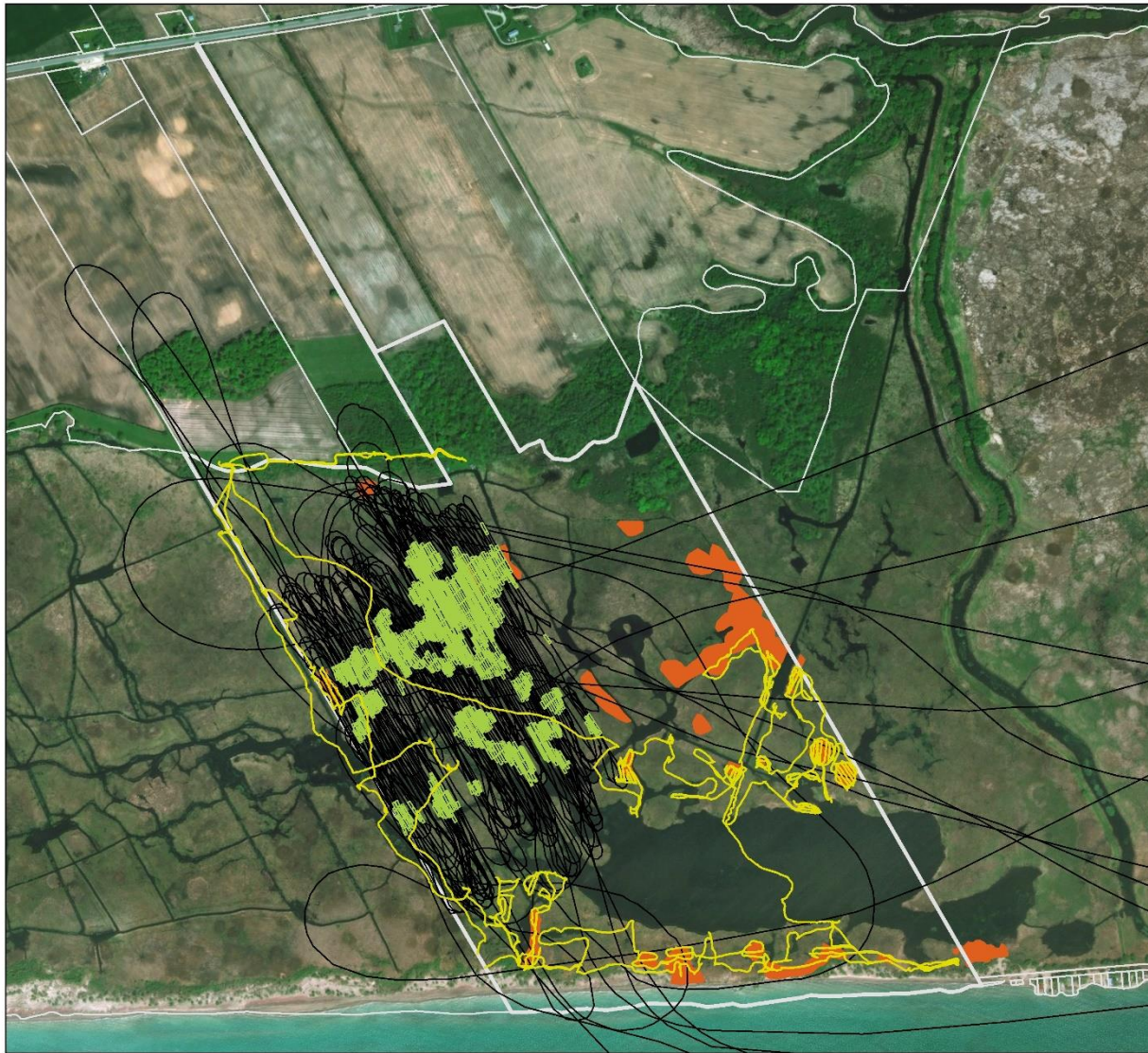


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Editor: NATURE
NATURE Conservancy of Canada - Ontario Region, 2018
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October 24, 2018



Ground Treatment



PHRAGMITES AUSTRALIS, GROUND & AERIAL TREATMENT SITES, THE FLIGHT MARSH LIMITED

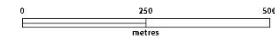
- Property Boundary
- Phragmites Australis

Retreatment Area

- Ground Treatment Site - Marsh Master

Aerial Treatment

- Aerial Flight Line
- Aerial Treatment Site (10.75 ha/26.56 ac)



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Edits: November 2018
Nature Conservancy of Canada - Ontario Region, 2018
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ESR, 2018
October 25, 2018

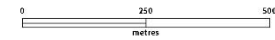


Ground Treatment



PHRAGMITES AUSTRALIS, GROUND & AERIAL TREATMENT SITES, LONG POINT REGION CONSERVATION AUTHORITY

- Property Boundary
- Phragmites Australis
- Retreatment Area**
- Ground Treatment Site - Marsh Master



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Nature Conservancy of Canada - Ontario Region, 2018
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ESR, 2018

October 25, 2018



Ground Treatment



PHRAGMITES AUSTRALIS, GROUND & AERIAL TREATMENT SITES, LONG POINT COMPANY & BIRD STUDIES CANADA

Property Boundary

New Treatment Area

Ground Treatment Site - Marsh Master
16.41 ha/40.54 ac

Retreatment Area

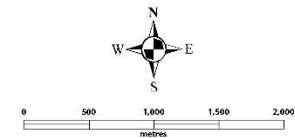
Ground Treatment Site - Hand Spray

Ground Treatment Site - Marsh Master

Aerial Treatment

Aerial Flight Line

Aerial Treatment Site (13.71 ha/33.88 ac)



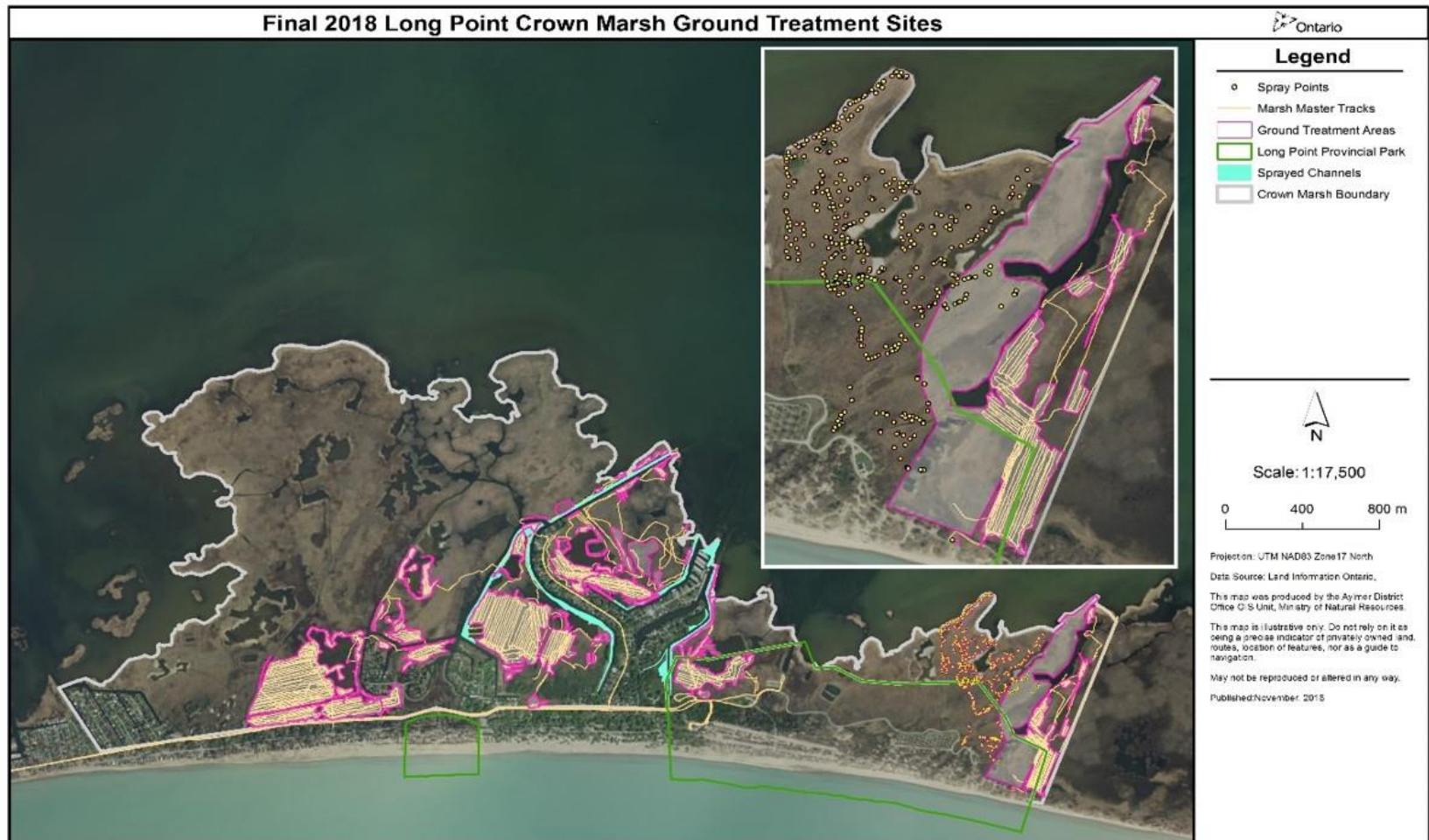
This map is illustrative only. Do not rely on it as being a precise indication of property, natural land resource, location or features, nor as a guide to navigation. The map may contain inaccuracies or errors. Not to be used for legal purposes.

Map Sources:
Nature Conservancy of Canada - Ontario Region, 2018
Ontario Ministry of Natural Resources and Forestry, 2018
LNR, 2018

October 26, 2018



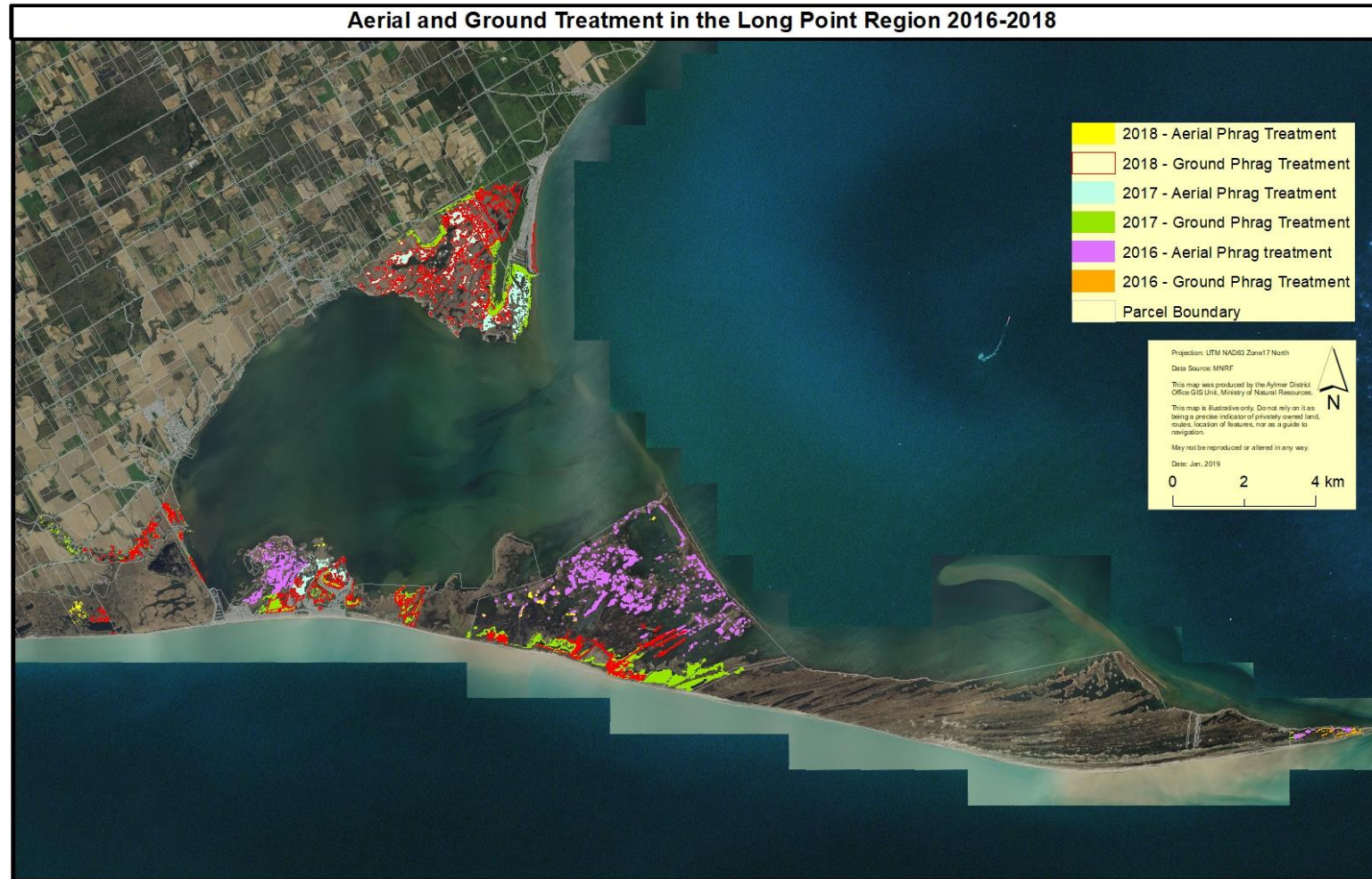
OMNRF Ground Treatment



OMNRF Aerial Treatment



Pilot Project Scale



Monitoring our work

- Drinking water quality – highest importance
- Efficacy – did it work?
- Fate of the herbicide – water and sediment sampling
- Impacts to aquatic organisms – confirm existing science
- Effects on fish and fish habitat
- Sensitive vegetation community response
- Benthic invertebrate monitoring as indicator species for reptiles and amphibians
- PAMF – Phragmites Adaptive Management Framework

Next Steps – Integrated Pest Management

- Develop follow-up treatment plans for sites that were treated with herbicide using guidance from MNRF's *Invasive Phragmites BMP, 2011*
- Could including cutting, rolling or prescribed burns



Next Steps – Landscape-scale Phragmites Control

- Develop a pilot landscape-scale project in the Long Point region
 - 2019 Big Creek Watershed inland treatment Phase 1 begins
- Identify follow-up treatment needs in 2016 - 2018 spray sites
- Engage federal government - ECCC Canadian Wildlife Service
- Expand to include other critical coastal wetlands in the lower Great Lakes and associated watersheds

Questions?



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