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Collaborating to Restore Coastal Wetlands

The Long Point Phragmites Emergency Use Registration Pilot Project

> Ontario Phragmites Working Group AGM January 18, 2018



Phragmites australis The Threat

- 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





Long Point Region Coastal Wetlands What's the big deal?

- One of the few remaining coastal wetlands on Lake Erie with natural, hydrological connections and pulses
- Global, national and provincial designations (e.g. UNESCO Biosphere Reserve, Earth Science and Life Science Areas of Natural & Scientific Interest, Provincially Significant Wetland, RAMSAR Site, Important Bird Area, etc.)
- Provides habitat for a high number of wetland-dependent wildlife, including ~23 species at risk.
- High number of provincially rare species and vegetation communities
- Significant opportunity for landscape-scale impact



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)
- LPPAA represents over 25 groups, collaborative to support phragmites awareness, education and control efforts



Tools of the Trade





Aerial Treatment – 236 ha



- Expedition Helicopters contracted by MNRF
- Using GPS-based software to control spray booms
- Accu-Flo nozzles at ASAE Coarse classification to control drift
- Maximum height of spray
 3m of above plants
- Maximum speed of 60 km/h



Aerial Treatment – 236 ha



Helicopter calibration





Aerial Treatment – 236 ha

PHRAGMITES TREATMENT - HELICOPTER FLIGHT LINES TURKEY POINT





Ground Treatment – 254 ha



- Two Marsh Masters required
- MMs designed for wetland work; low impact travel, low ground pressure, amphibious, built to work in tough conditions
- One 20' Jon boat with Godevil motor and sprayer



Ground Treatment





Ground Treatment





Ground Treatment





OMNRF Aerial & Ground Treatment





Ground Program Technology





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
- PAMF Phragmites Adaptive Management Framework



Next Steps – Ensuring a job well done

Winter 2017-18

- Cutting, rolling and prescribed burn where feasible
- Support MNRF in 2018 EUR Application development

2018 Planning

- Focus on filling in the gaps (new areas) in the 2016 and 2017 control programs
- Identify follow-up treatment (re-growth) needs in 2016 and 2017 spray sites
- Determine application methods that will be most beneficial and least impact for follow-up treatment



Questions?



