



Controlling Phragmites in Great Lakes Wetlands

ASWM: Wetlands 2008

Michigan Department of Environmental Quality

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- The phragmites problem in the Great Lakes
- Controlling phragmites
- Phragmites projects in Michigan
- Elements of a phragmites outreach program



What is phragmites?

- Aggressive wetland grass
 - Up to 15 feet tall
 - Forms dense, monotypic stands
 - 80% of biomass is underground
- Native and non-native genotypes are found throughout the U.S.
- Invasive variety has been an increasing problem for the past 10-15 years in Michigan



Invasive Phragmites

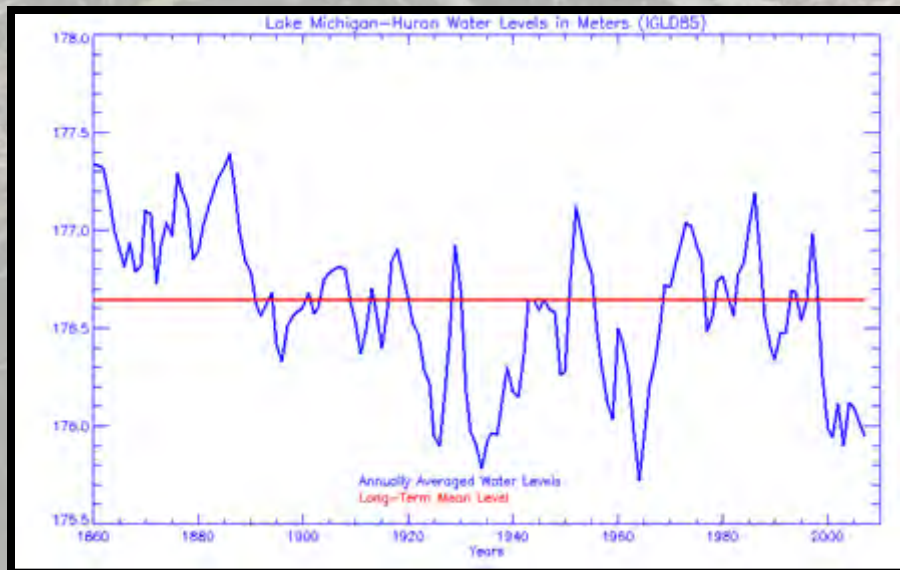
- Displaces and crowds native vegetation
- Reduces wildlife habitat diversity
- Dries marsh soils
- Traps Sediments
- Restricts shoreline views
- Reduces shoreline access for swimming, hunting, and fishing



Phragmites and Water Levels



- Water level fluctuations are a natural occurrence in the Great Lakes.
- Since 1998, water levels have dropped to near record lows
- Low water is important for coastal wetland persistence, but it also opens up bottomlands to new phragmites infestations



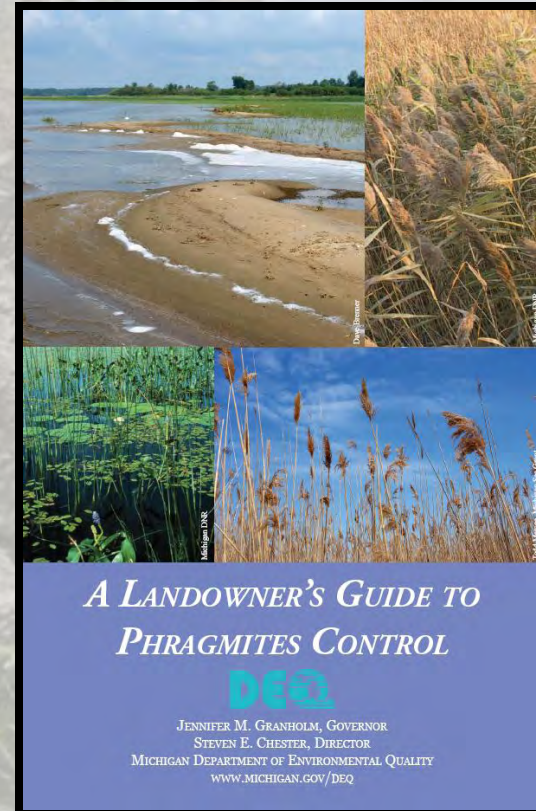
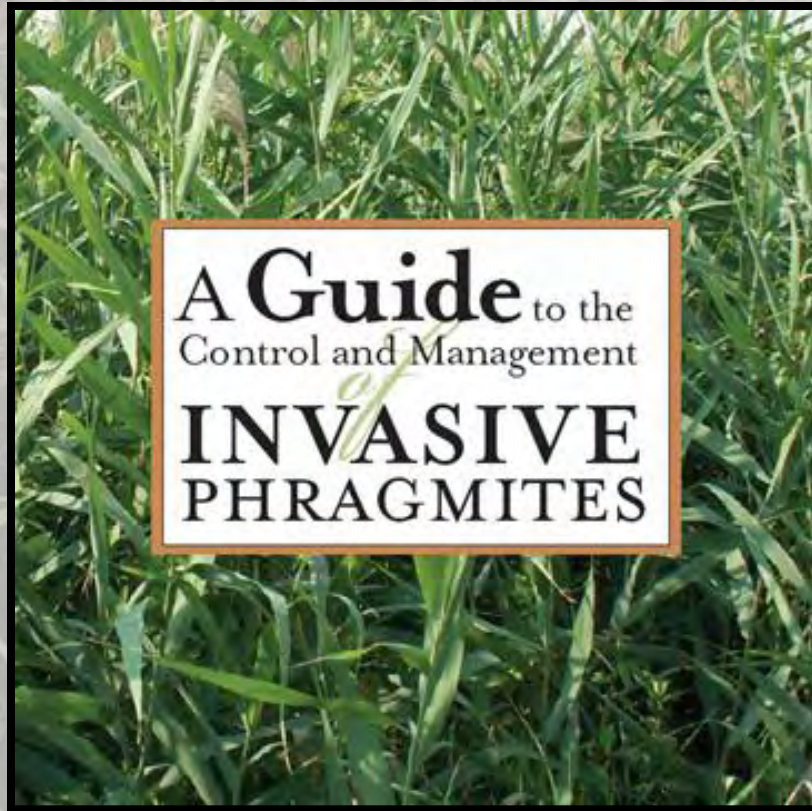


Initial Reaction and Control

- Legislative changes in 2003 allowed shoreline property owners to mow, groom and remove vegetation without a permit.
- Exemptions expired in 2007, allowing regulatory agencies to promote sound management techniques

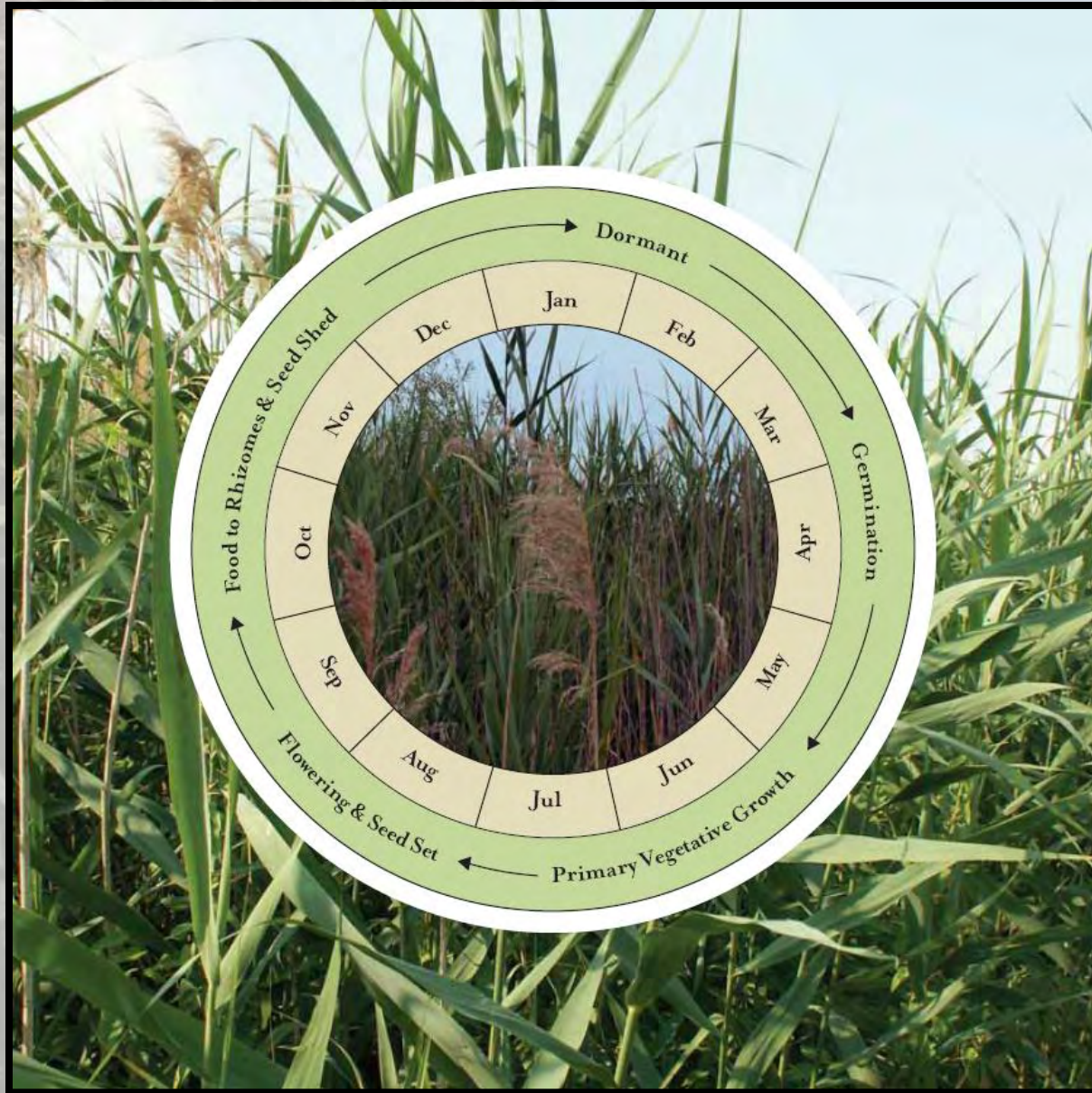


Resources for Control



www.michigan.gov/deqaquaticinvasives

Phragmites Life Cycle



Herbicides

- Must use herbicides to adequately control phragmites
- Treatment timing- late summer is best
- Treatment below the OHWM of the Great Lakes requires a permit

	Imazapyr	Glyphosate	Combination
Treatment Timing	June – First Killing Frost	Late August – First Killing Frost	Late August – First Killing Frost
Cost	High	Low	Medium
Effectiveness	High	Medium	High

Secondary Treatments

- Mowing
- Prescribed Fire
- Flooding



Yearly Follow-up Treatments

Annual maintenance plan should include spot treatment of new growth with herbicide



Phragmites Projects



- Lake St. Clair- St. John's Marsh
- Saginaw Bay Coastal Initiative Demonstration Project
- Beaver Island Phragmites Ordinance
- Grand Traverse Bay Phragmites Project

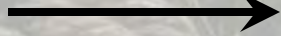
St. John's Marsh



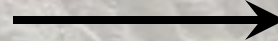
St. John's Marsh



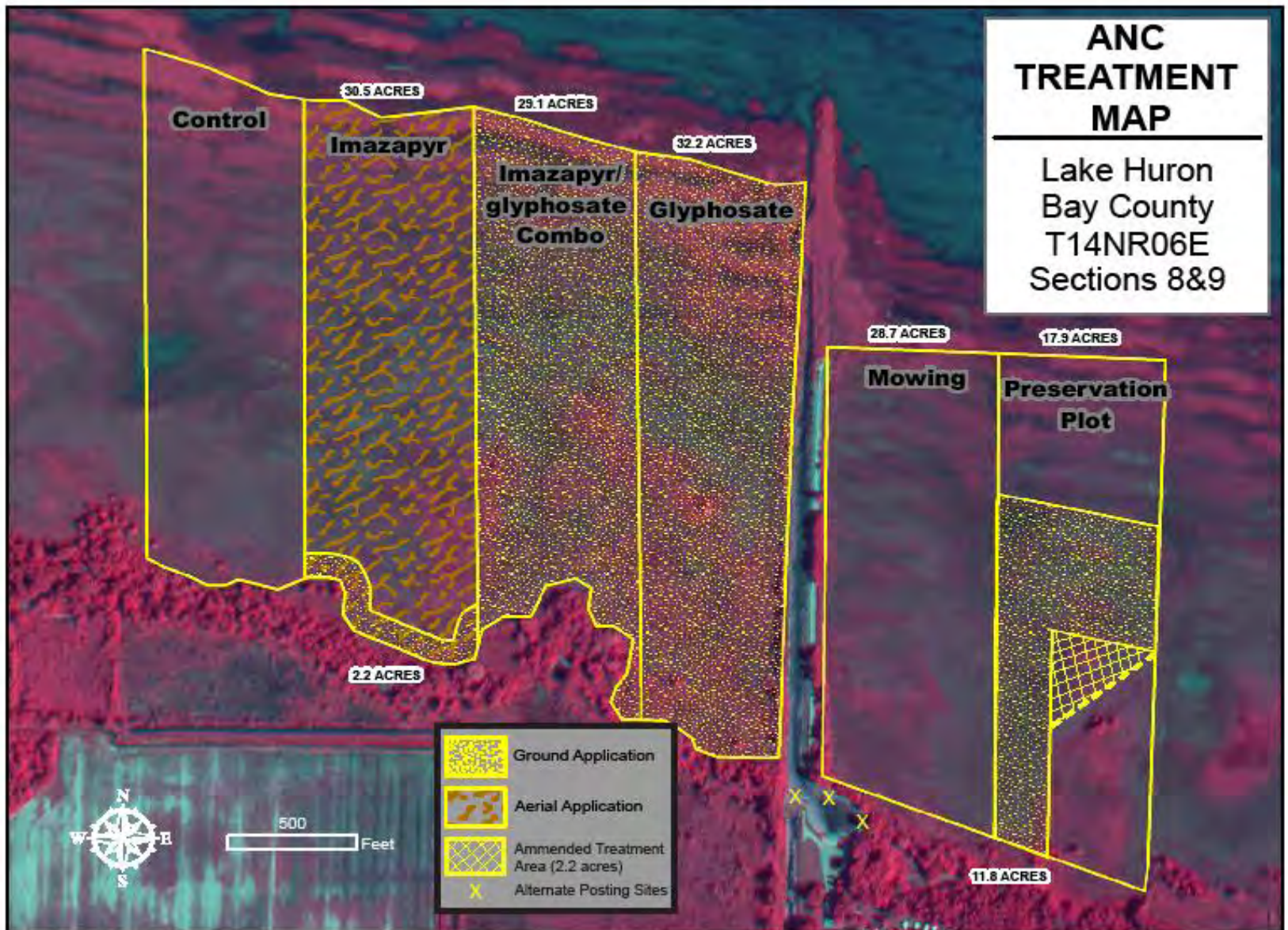
Herbicide
(glyphosate)

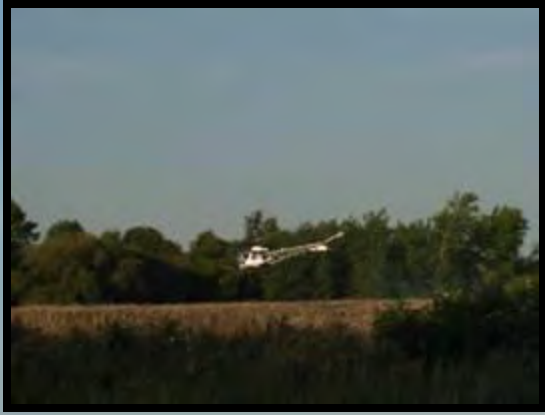


Burn
(winter)



Saginaw Bay Demonstration Project









Year 1 Results

Imazapyr (treated June 2008)



Combo (treated Sept 2007)



Year 1 Results



mow



Gly



combo



combo



Imaz



control

Beaver Island Ordinance



Save Our Shoreline
a project of Peaine and St. James Townships
36825 Kings Highway, Beaver Island, Michigan 49782

Name: _____

Property Location: Bay/Beach: _____

Property Address: _____ Beaver Island, MI 49782

Additional Property - Please list additional property or properties on the back of this form

July/August Phone # _____ Email _____

Check all that apply:


I give permission to Peaine/St. James townships to inspect my property for Phragmites annually.

I understand that I have invasive Phragmites on my property.

I give consent to Peaine/St. James townships and the authority to treat during 2008-2009.

Check enclosed, due June 24, Payable to: Peaine Township/SOS Fund.

Donation for SOS Fund. Funds used only for Phragmites control efforts.



_____ signature _____ please print

Grand Traverse Bay

- Mirroring Beaver Island strategy
- Survey for phragmites locations throughout the bay in Sept 2008
- Stakeholder meeting in October
- Use the meeting and the media to educate the public



Elements of a Phragmites Outreach Program

- Treatment Method Development
- Education and Outreach
- Mapping
- Collaborate to treat large areas



Questions?

