Great Lakes *Phragmites* Collaborative:
A Case Study of the Collective Impact Approach

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Great Lakes Commission
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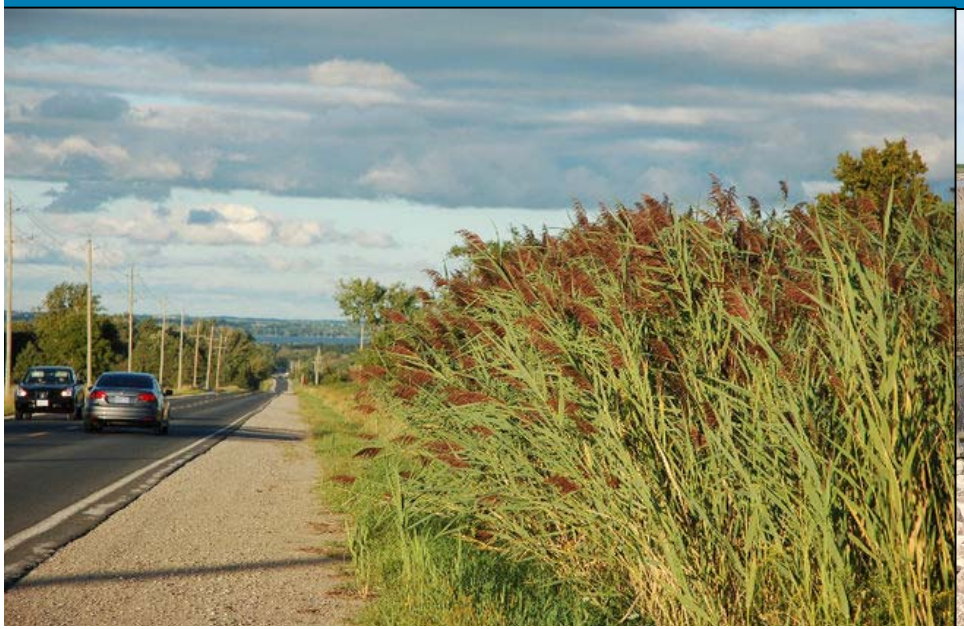
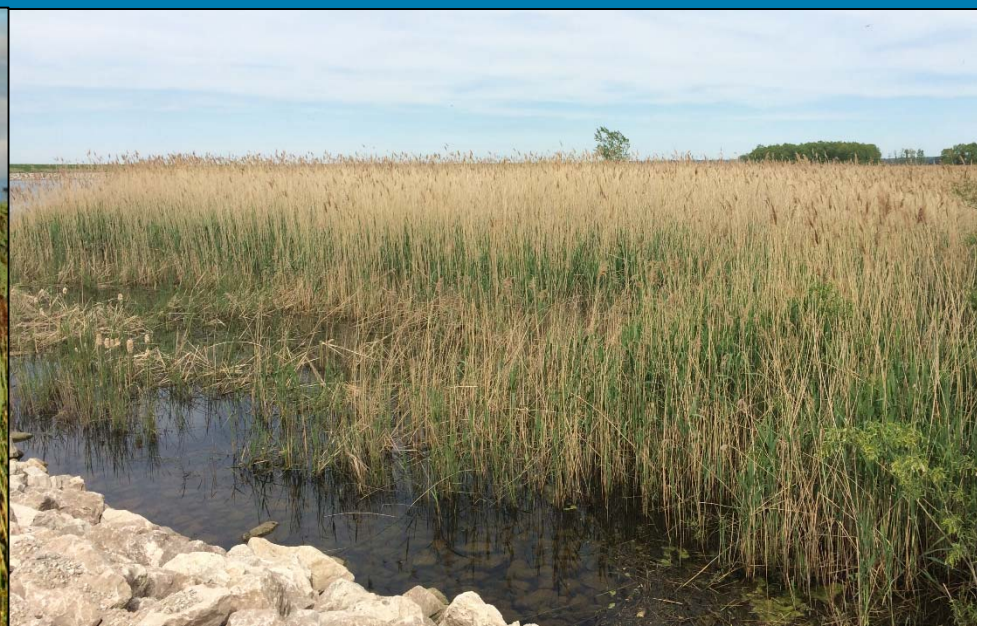
Overview

- Introduction: *Phragmites* in the Great Lakes
- Collaboration vs Collective Impact
- Example: Great Lakes *Phragmites* Collaborative
- Discussion

Phragmites australis

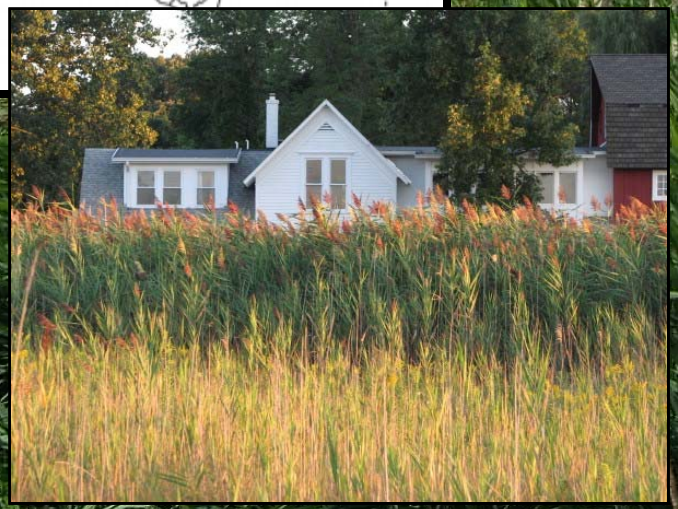
- Tall, perennial grass
- Found in wetlands, shorelines, ditches
- Different genotypes grow worldwide

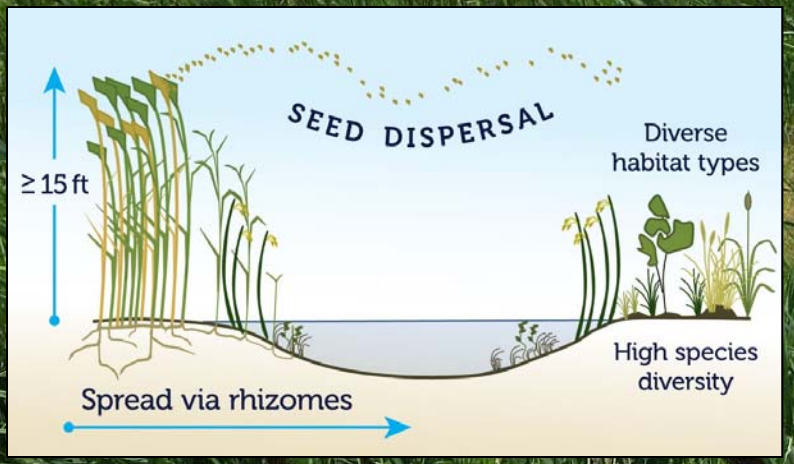




A Landscape-Scale Problem

- Ecological Impacts
- Socio-economic Impacts
- Resource Intensive





Current Management Strategies

Chemical

Flooding

Mechanical

Fire

Challenges

1. Resource intensive
2. Not species specific
3. Must be repeated and customized
4. ★ Lack of regional coordination

GREAT LAKES PHRAGMITES COLLABORATIVE

The birth of an idea…

Great Lakes PHRAGMITES COLLABORATIVE

A partnership to link people, information, and action

Great Lakes Commission | USGS | Great Lakes Restoration

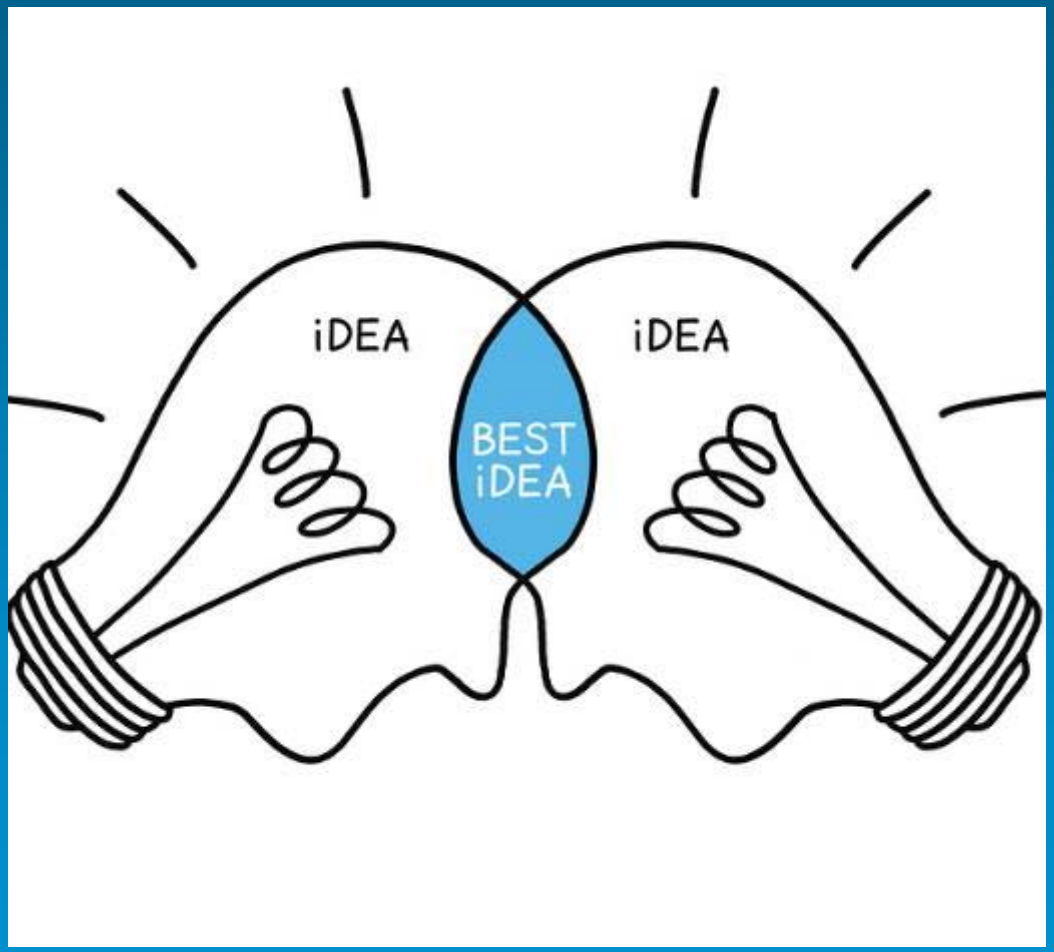
Survey: Key Needs

- More communication
- More collaboration
- More access to research
- Better coordination between researchers and managers
- More adaptive management

Let's Collaborate! …But How?

Want to:

- Build community
- Develop tools and resources
- Facilitate cooperation
- Support decision making
- Drive positive change



Collective Impact:

"the commitment of a group of important actors from different sectors to a common agenda for solving a specific social problem" (*Kania and Kramer, 2011*)

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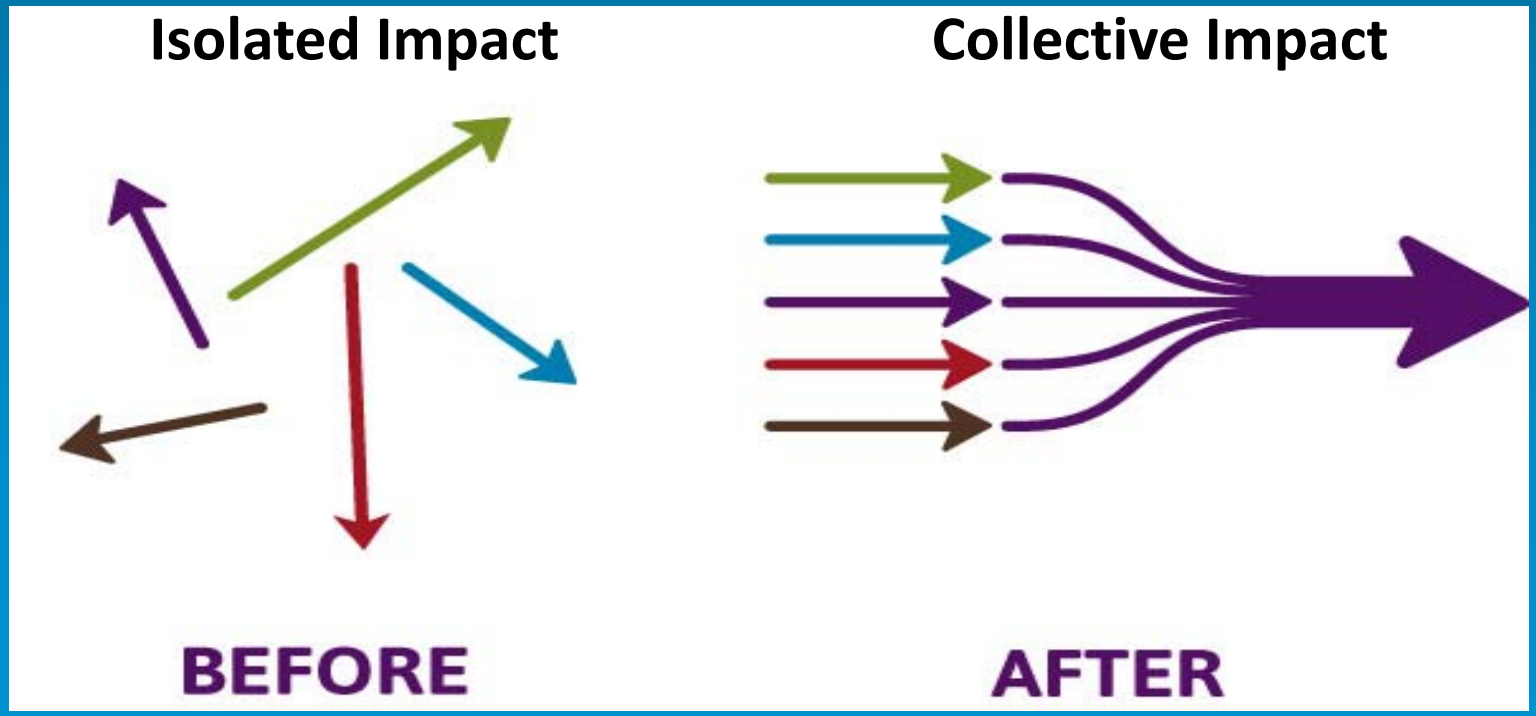


Collaboration vs Collective Impact:

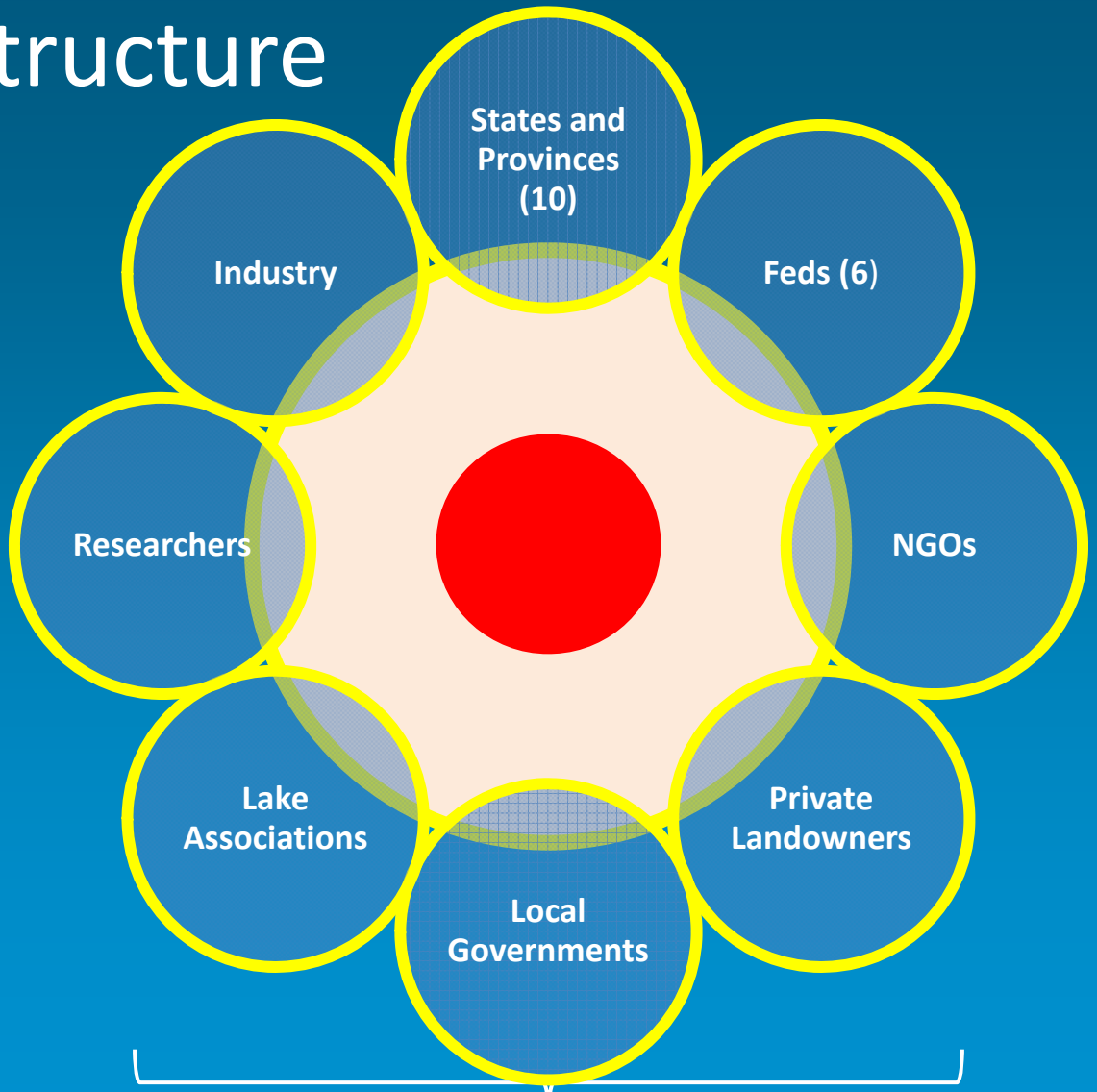
- Provides an organizational structure
- Maximizes the results of collaboration
- “Collaboration on steroids”



Elements of Collective Impact

- Common Agenda
- Shared System of Measurement
- Mutually Reinforcing Activities
- Continuous Communication
- Neutral Backbone Organization

GLPC Structure



GLC as Backbone Organization

1. Common Agenda

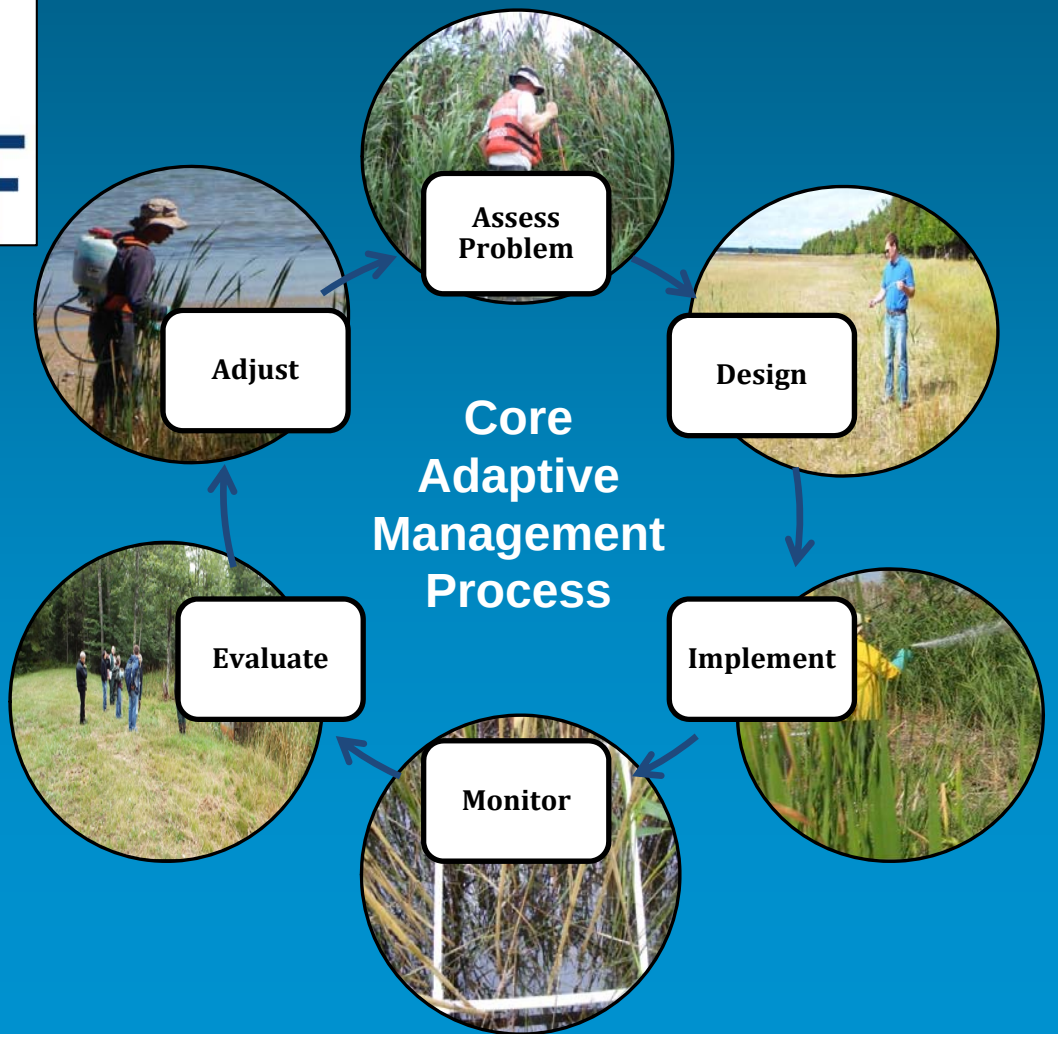
Purpose:

Facilitate communication and collaboration that leads to effective research and management of non-native *Phragmites* within the Great Lakes region.

Vision:

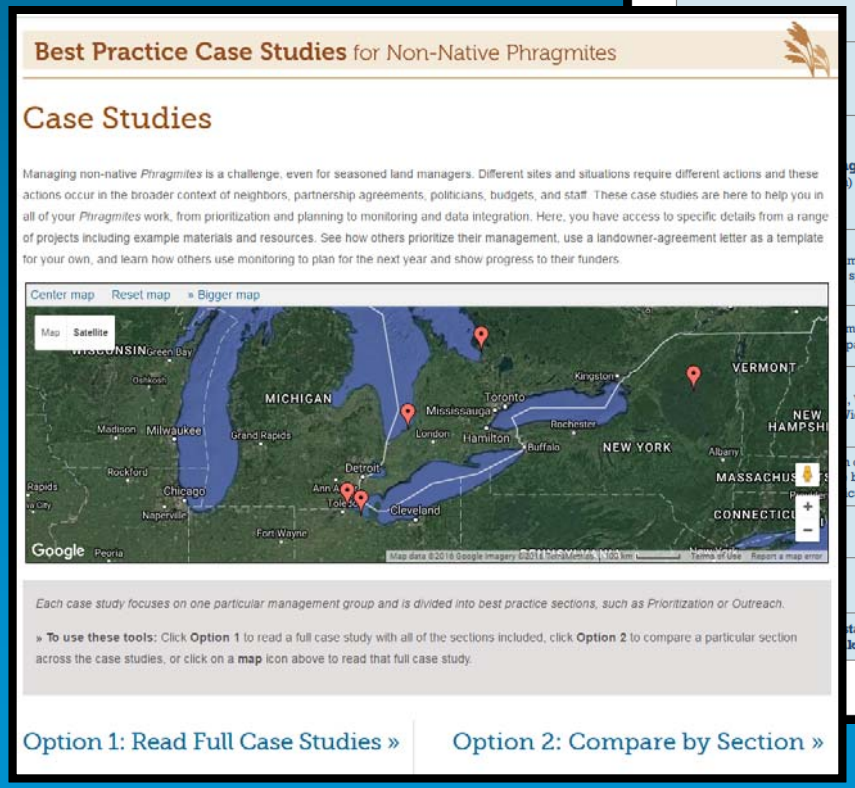
Great Lakes wetland ecosystems and their services are not degraded by non-native *Phragmites.*

2. Shared Measurements



3. Mutually Reinforcing Activities

- Best Practices
- Resources



Great Lakes PHRAGMITES COLLABORATIVE

Phragmites Treatment Herbicide Quick Guide

Please Note: This document was developed for interpretive purposes. Treatment decisions should be based on site conditions and management goals. Rates listed below are not meant to override the instructions provided on each individual herbicide label. The label is the law; follow all label instructions. This sheet provides information about concentrations by **volume** of packaged product NOT by **active ingredient (a.i.).**

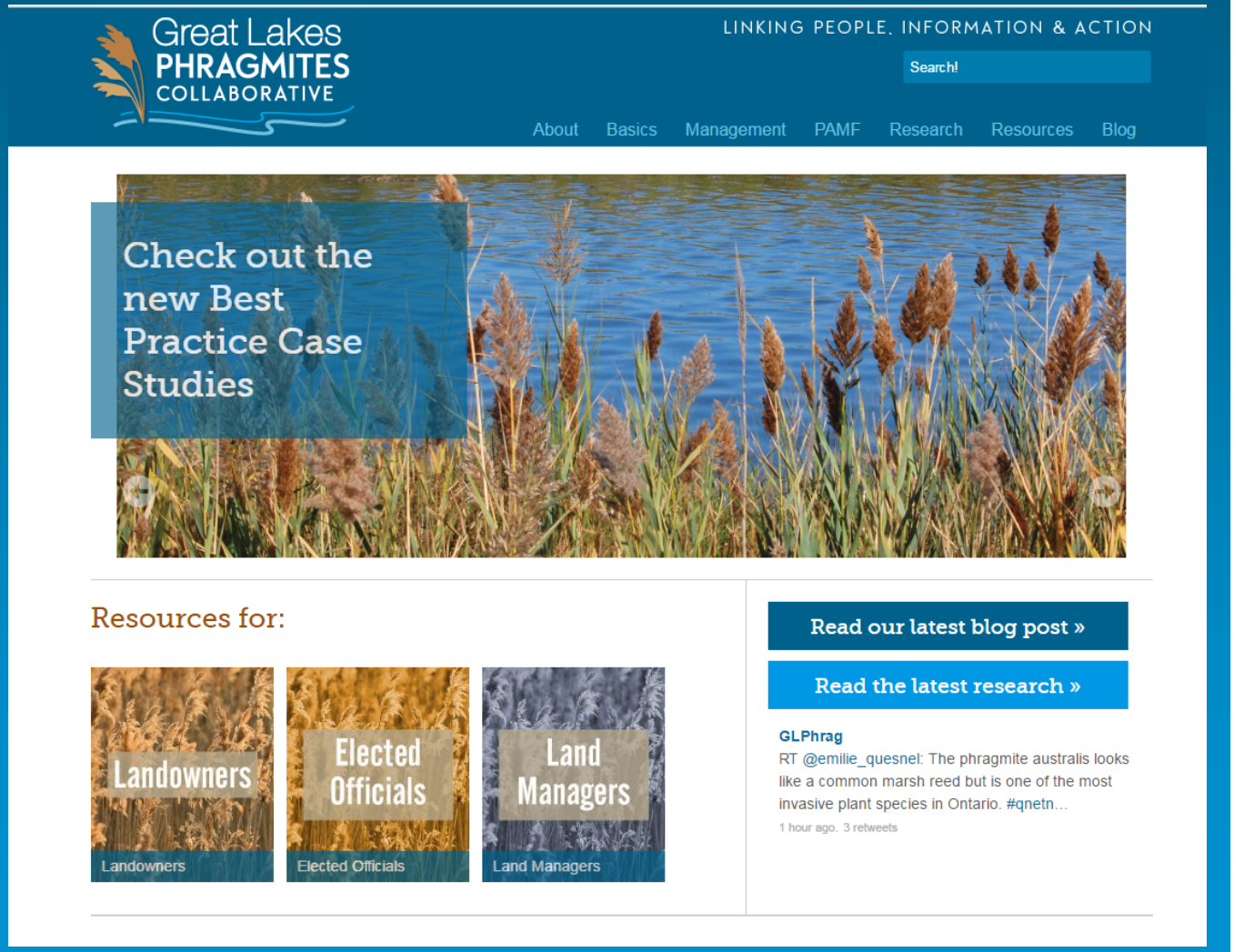
When working over or near water, it is important to use herbicide and surfactant **formulations approved for aquatic uses**. Terrestrial (overland) formulas, such as Roundup, contain ingredients that are dangerous to aquatic species. Use of terrestrial herbicides or surfactants on wet sites violates state and federal laws. **Many states require a permit** to use herbicide over or near water. Check with your local authorities to determine permitting requirements. **In Canadian provinces, no herbicides have been approved for over-water use.**

	Imazapyr	Glyphosate	Imazapyr & Glyphosate Combination	Imazamox	Surfactant (nonionic)
	Habitat (28.7% a.i.) Arsenal (27.8% a.i.)	Rodeo (53.8% a.i.) AquaNeat (53.8% a.i.) Aquamaster (53.8% a.i.) Accord (53.8% a.i.)		Clearcast (12.1% a.i.)	Cygnet Plus Cide-Kick
g	Apply to actively growing green foliage after full leaf elongation and up to first killing frost (~ June-Oct)	Apply after plants are in full bloom in late summer up to the first killing frost (late-Aug – Oct)	Apply after plants are in full bloom in late summer up to the first killing frost (late-Aug – Oct)	Apply to actively growing green foliage after full leaf elongation and up to first killing frost (~ June-Oct)	
	If the stand has a substantial amount of old stem tissue, mow or burn prior to spray; allow to re-grow to approx. 5' before treatment (>6 weeks)				
me spray)	4-6 pints/acre	4-6 pints/acre	3 pints imazapyr + 3 pints glyphosate/acre	4 pints/acre (use with 2 pints/acre methylated seed oil (MSO) instead of other surfactants)	1-4 pints/acre
me pack)	1-1.5% solution	0.75-2% solution	1.5% solution total (0.75% ea. for imazapyr and glyphosate)	1-2% (use with methylated seed oil (MSO) at 0.5-1% instead of other surfactants)	0.25-0.5% solution
, Wick, Vick	10% cover at least 50% of the foliage, best results from covering top half of plant	10% cover at least 50% of the foliage, best results from covering top half of plant	10% cover at least 50% of the foliage, best results from covering top half of plant		0.25-0.5% solution
or cut bottle/ cator)		33% solution			0.25-0.5% solution
	Allows treatment earlier in the growing season	More appropriate if working in sensitive areas or areas near woody species	Reduced cost from imazapyr alone	More appropriate if working in areas near woody species	Use of surfactant is necessary to achieve the labeled results for the herbicides
	Greater danger of non-target damage and active residuals in the soil; expensive	Treatment window is smaller	Greater danger of non-target damage and active residuals in the soil; treatment window is smaller		
tance kes	0.5 mile (0.8 kilometer)	0.5 mile (0.8 kilometer)	0.5 mile (0.8 kilometer)	0.25 mile (0.4 kilometer)	

Last Updated 7.2.2015

4. Continuous Communication

- Webhub
- Webinars
- Committees
- Social media
- Listserv



5. Backbone Organization

Six Core Functions for the Backbone Organization

- Guide Vision and Strategy
- Support Aligned Activities
- Establish Shared Measurement Practices
- Build Public Will
- Advance Policy
- Mobilize Funding

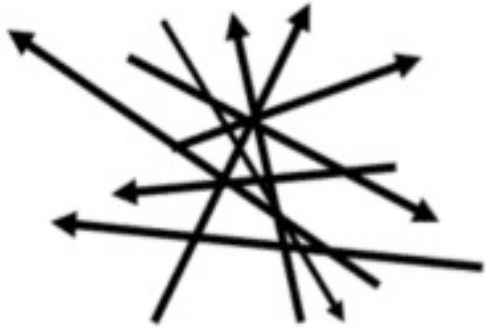
Backbones must balance the tension between coordinating and maintaining accountability, while staying behind the scenes to establish collective ownership

Status of Collective Impact

ELEMENT	STATUS			
Common Agenda				
Shared Measurements				
Mutually Reinforcing Activities				
Continuous Communication				
Backbone Support				

Why a Phragmites Collaborative?

From

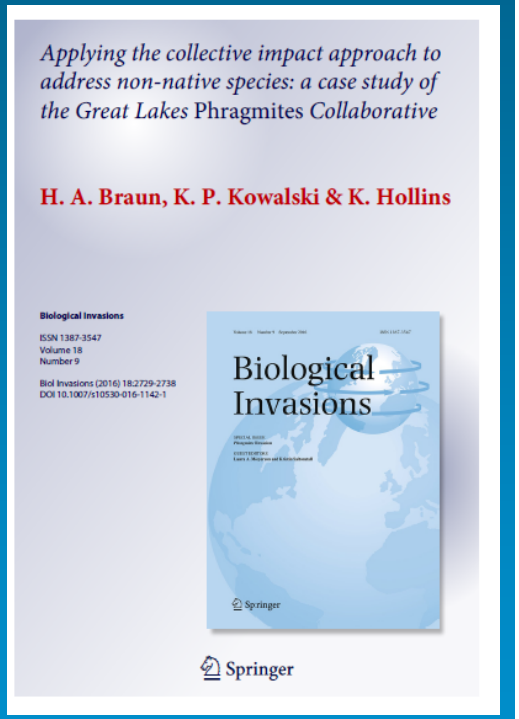


To

Steps for Establishing a Collective Impact Collaborative

Braun, H.A., Kowalski, K.P. & Hollins, K. Applying the collective impact approach to address non-native species: a case study of the Great Lakes *Phragmites* Collaborative. Biol Invasions (2016) 18: 2729. doi:10.1007/s10530-016-1142-1

Kania J, Kramer M (2011) Collective impact. Stanf Soc Innov Rev 9(1):36–41



Acknowledgements

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Thank You!
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