

Background

Invasive non-native *Phragmites* is a threat to the Great Lakes, affecting more than 24,000 ha of the U.S. coastline and a significant amount of inland areas. Land managers are investing significant resources to treat non-native *Phragmites* stands, but long-term control is difficult; resources are limited, a standardized measurement and tracking system does not exist, and managers can face uncertainty regarding treatment effectiveness.



Extent of invasive *Phragmites australis* in the Great Lakes basin (shown in yellow)



System responses to treatment (e.g., herbicide, flooding, burning) varies given application approaches, site-scale environmental conditions, and a suite of other factors, making “best management practices” difficult to define.

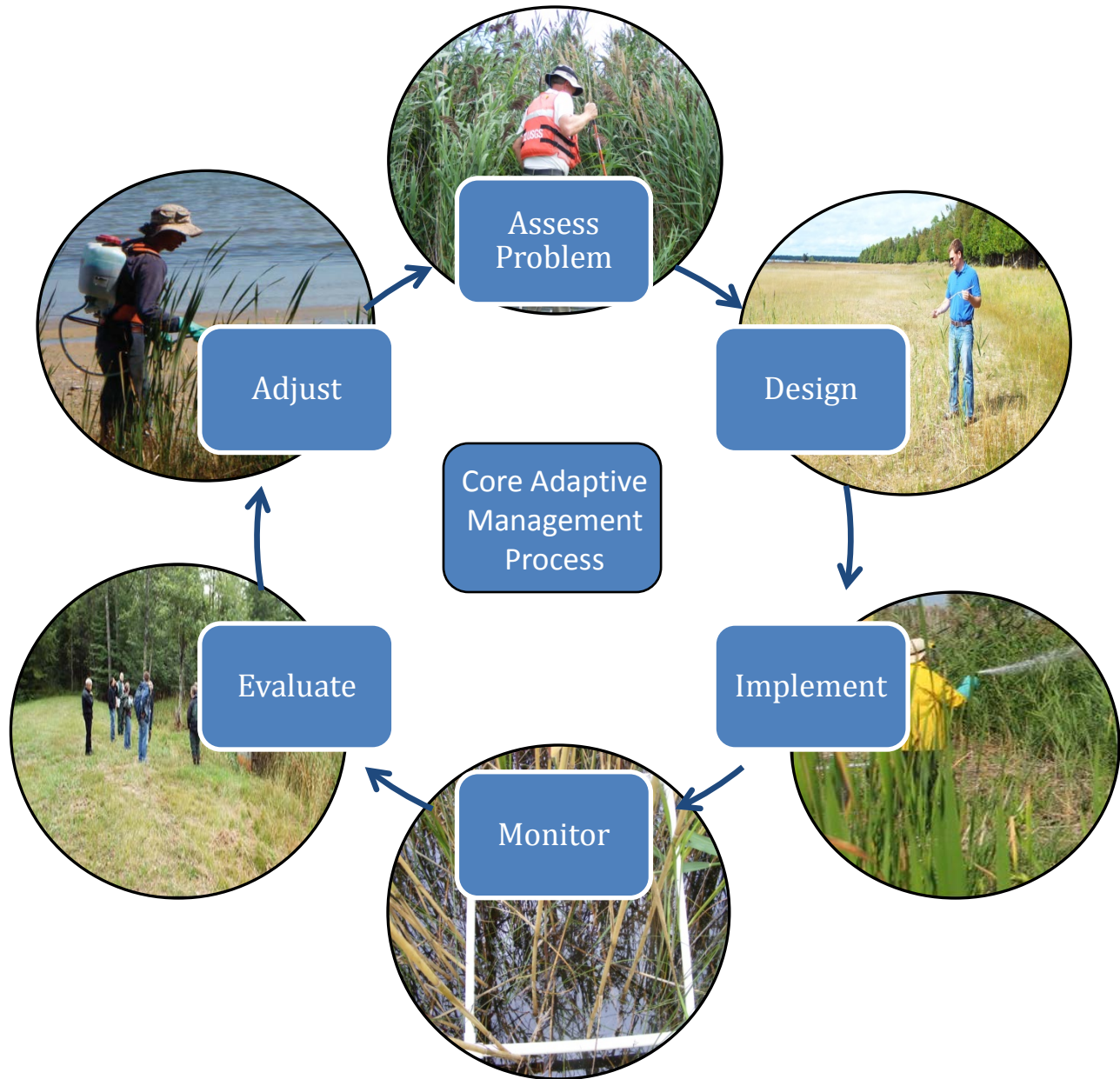
Management Shift

Adaptive Management (AM) will improve *Phragmites* management at both the local and regional scales, increase management efficiency, and reduce treatment uncertainty. Treatment uncertainty will be reduced through a learning-based management system and result in site and condition specific best management practices. Input from land managers will actively improve these results and create an objective assessment of which treatment approach is most likely to result in desired habitat condition.



Phragmites Adaptive Management Framework (PAMF)

A *Phragmites* Adaptive Management Framework (PAMF) is being developed to facilitate a landscape change in management strategy. Once fully operational, resource managers involved in PAMF will monitor treatment responses, upload results to a treatment database, and then receive annual, customized guidance and suggestions about future treatments.



Adaptive management of *Phragmites* will guide the selection of treatments long into the future, confronting invasion threats where they occur, while steadily reducing uncertainty about how non-native *Phragmites* responds to treatment.