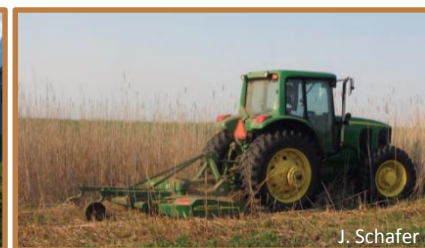
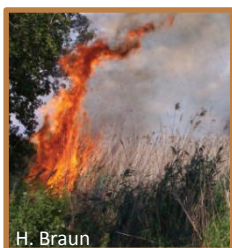


Background

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 monitoring protocol and structured system for learning 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) vary given application approaches, site-scale environmental conditions, and a suite of other factors, making it difficult to provide best management practices that are truly site-specific.

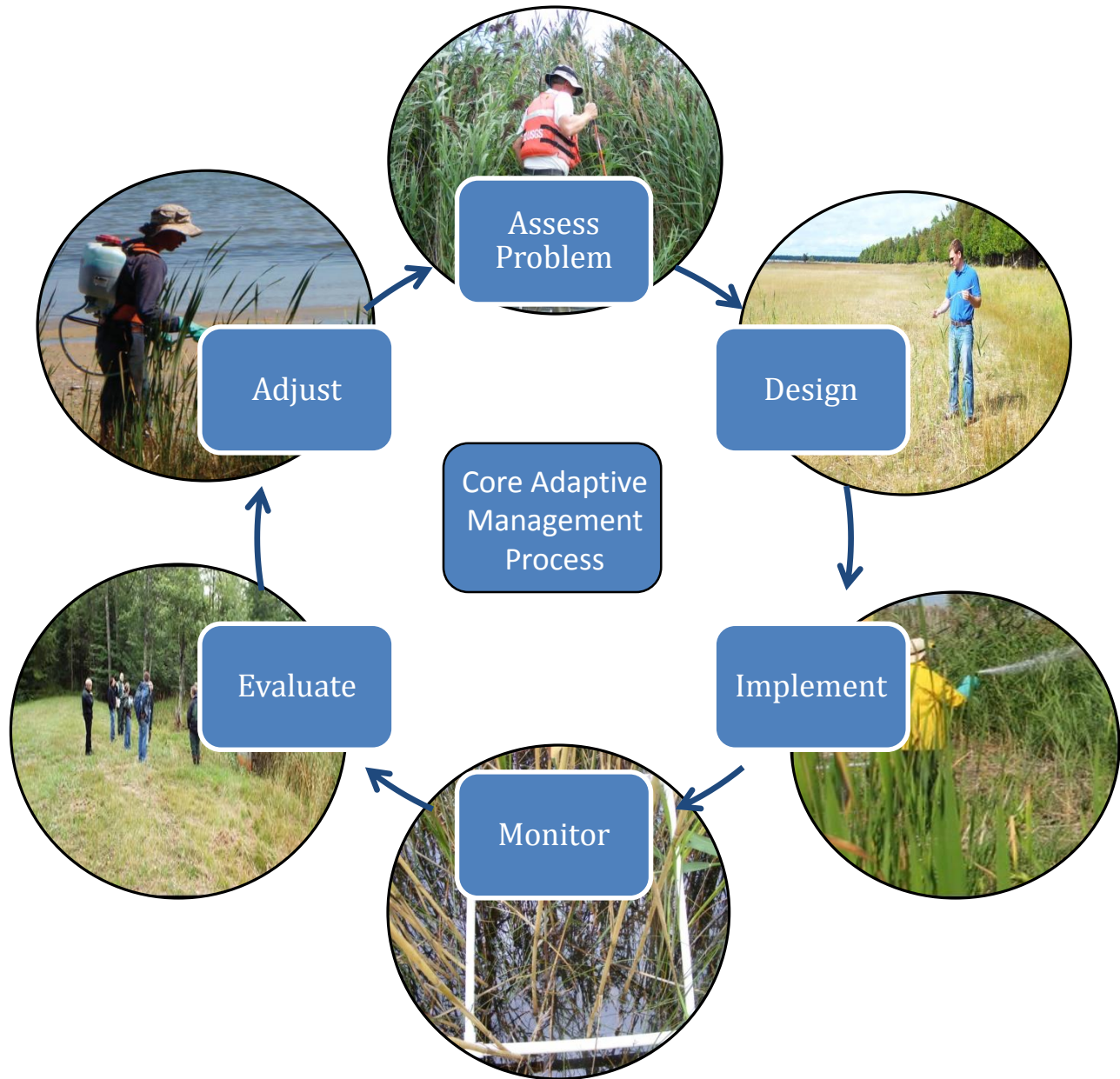
Management Shift

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 by structuring learning directly into the management process, and result in site-specific best management practices. This strategy will make it possible for everyone to learn from each treatment that is made, continually improving our understanding of what works, and what doesn't.



Phragmites Adaptive Management Framework (PAMF)

The *Phragmites* Adaptive Management Framework (PAMF) is being developed to facilitate a landscape change in management strategy. Once this tool is developed, resource managers involved in PAMF will monitor treatment responses, upload results to the PAMF web hub, and then receive annual, customized guidance for 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.