

***Phragmites* Adaptive Management Framework: Standardizing the Management of *Phragmites* Throughout the Great Lakes Basin**



Since 2010, millions of dollars have been spent on efforts to combat and control non-native invasive *Phragmites australis* (*Phragmites*) in the Great Lakes region. The *Phragmites* Adaptive Management Framework (PAMF) is a critical step in providing long-term solutions to this problem.

Phragmites is a perennial wetland plant that can grow to heights of 30 feet or more with thick root systems that can degrade coastal areas by out-competing native plants including those important to wildlife. Thick stands of the plant can also become a fire hazard and cut off access to lakes and rivers in the Great Lakes basin.

Land managers have been using a combination of management techniques to combat *Phragmites* for years but current management strategies are not enough. These techniques are resource intensive and differ in effectiveness. However, it is difficult to predict why. This problem is complicated by the absence of a standardized approach that can learn from individual efforts while sharing new knowledge with land managers across the basin. To address these challenges, the Great Lakes Commission is working with the U.S. Geological Survey and the University of Georgia to develop a new strategy called the *Phragmites* Adaptive Management Framework (PAMF).

PAMF uses a systematic adaptive management approach that builds learning into the management process by combining a standardized monitoring protocol with a predictive model to generate an improved understanding of how the order and timing of management techniques can impact and change expected management outcomes. PAMF is funded by the Great Lakes Restoration Initiative and is the first wide-scale application of adaptive management in the Great Lakes basin.