

## **Introduction: Video Transcription**

June 2020



[Thank you for your interest in the *Phragmites* Adaptative Management Framework, or PAMF. This short video is meant to give you an understanding of the "why" behind its creation.]



- Implementation technique
- Minimal knowledge sharing
- Expert Disagreement

[A number of traditional methods are used to control *Phragmites*. Some of these include herbicide applications, mechanical removals, prescribed burns, and hydrologic manipulations, just to name a few. One thing that all of these techniques have in common that is that they are resource intensive, requiring special knowledge, equipment, staff time, and funding. However, *Phragmites* managers are not seeing consistent results when implementing these techniques. For example, an herbicide treatment applied in Michigan may have a very different outcome than one applied similarly in Minnesota. A lot of uncertainty exists surrounding which variables (such as, site conditions and implementation techniques) are responsible for such variability in the treatment effectiveness. And when a manager does find a highly effective management technique, there is currently no mechanism in place for sharing that knowledge with other managers. Even our regional *Phragmites* experts are struggling with the uncertainty of treatment outcomes.]



[During the initial planning phase for PAMF, experts were elicited to help provide the base values for the PAMF model. Part of this elicitation involved giving each of the 9 experts a hypothetical management scenario (so in this case, you applied a glyphosate treatment to a *Phragmites* stand that was 80% established with non-native *Phragmites*) and asked them to predict the most likely outcome by distributing 100 points. If there was high agreement between experts, then we would see a lot of overlap in the distribution of points.]



[Expert 1 anticipated an improvement in the invasion status, with a reduction in the percent establishment of *Phragmites* at this site, most likely between 41-50%.]



[Expert 2 expected even lower establishment.]



[Even better expectations from expert 3, who predicted eradication was even possible.]



[Expert 4 still predicted a lot of improvement.]



[Expert 5 believed pretty similar to expert 4.]



[Expert 6 predicted there would be no change in the invasive status after one year of treatment.]



## [Expert 7 predicted some improvement.]



[Expert 8 thought it was possible the invasion would get worse!]



[And expert 9 believed that a large reduction in *Phragmites* was likely. Remember how I said that a lot of overlap in responses indicates expert agreement? Well that is not what we saw. Even the experts disagree on what would happen. This result was interesting to us and reflected the uncertainty that we were seeing in *Phragmites* treatment outcomes throughout the region. It was becoming more clear that we needed some sort of systematic, collective learning to address some of this uncertainty.]



[Going back to 2015, the Great Lakes *Phragmites* Collaborative surveyed *Phragmites* managers asking them about their interest in tools include mapping tool, saleable monitoring and statistical protocols, decision-support tools, and online databases to store project information. The responses showed a lot of interest in all of the proposed tools. The Collaborative wanted to find a way to reduce uncertainty that would incorporate the tools managers identified wanting.]



[Utilizing an adaptive management approach in the design of PAMF would allow us to systematically learn from our management outcomes in a way that would avoid the trial and error approach of management that was all too common.]



[When correctly implemented, Adaptive Management results in systematic learning, reduced uncertainty of management outcomes, less wastes of resources, and improved overall effectiveness of *Phragmites* management.]



[Thus, the *Phragmites* Adaptive Management Framework was formed to address the needs of *Phragmites* managers from across the Great Lakes basin. At PAMF, our mission is to find the best strategies for managing invasive *Phragmites* in the Great Lakes region. The benefits of PAMF include a basin-wide learning effort, systematic learning from management outcomes, and the site-specific data-driven guidance that we are able to provide as a result.]



[PAMF wouldn't be possible without the dedication of professionals from across the Great Lakes Basin. PAMF's Core Science Team consists of a staff from the U.S. Geological Survey, the Great Lakes Commission, and the University of Georgia. We also have a technical working group that assisted with the creation of PAMF and represent a binational cross section of *Phragmites* experts. And finally, the stakeholders. PAMF exists as a resource for *Phragmites* managers and will only continue to learn and improve as we have continued engagement. Anyone in the Great Lakes region can participant in PAMF. From private landowners to federal agencies! PAMF is open to anyone regardless of experience.]



[Now that you understand a little more about why PAMF exists, you can start exploring what it means to be a participant! Here is a representation of what the Adaptive Management framework looks like as part of the participant process. Participants work through these steps, which repeats on an iterative cycle.]



[When you add a timeline those steps, you end up with the PAMF Participant Cycle!]

