



The *Phragmites* Adaptive Management Framework (PAMF) combines participatory science and adaptive management into a collective learning process, producing annual data-driven guidance for participants managing non-native *Phragmites*

2022/23 CYCLE SUMMARY

28 *Phragmites* managers with 100 management units are enrolled in PAMF

Over **189** acres
(77 hectares) enrolled

An average management unit
is **1.9** acres (0.8 hectares)

92 management units
received data-driven guidance



PAMF provides guidance as a series of optimal and near-optimal **management combinations**, which may change each year as our predictive model learns from new participant's data that is incorporated annually



There are **16 possible management combinations**, comprised of **three management actions**—one for each phase of the *Phragmites* life cycle (translocating, dormant, and growing)

Too much rest? We hear you! PAMF model predictions and management guidance have been improved

THE 4 COMPONENTS INFLUENCING THE PAMF MODEL

- 1 Observed management action efficacy
- 2 Relative costs of management actions
- 3 Manager satisfaction
- 4 Past use of recommended actions



WHY DID THE MODEL SUGGEST THAT PAMF PARTICIPANTS REST-REST-REST (DO NOTHING)?

Doing nothing **costs** nothing!

In certain cases, there are **limited management options** other than rest (i.e., flooding next to a road is not feasible)

Insufficient data for how the model assigned "rewards," or how it picks optimal guidance

OLD METHOD



MODERATELY
UNSATISFIED

CHANGE IN THE MODEL'S REWARD SYSTEM

Previously a manager's satisfaction was a single value tied to an invasion state

Now it considers how satisfied a manager would be if a management unit transitioned to or out of an invasion state

Because Rest-Rest-Rest usually results in *Phragmites* growth, **it is now less likely to be recommended!**

IMPROVED METHOD



LOWER
SATISFACTION

HIGHER
SATISFACTION

Thank you to our PAMF participants for engaging in collective learning!
PAMF will continue to improve based on your feedback

Anyone managing *Phragmites* in the Great Lakes basin can enroll in PAMF year-round! Visit www.greatlakesphragmites.net/pamf
Questions? Contact the PAMF coordinator at pamf@glc.org

Be on the lookout for
PAMF funding opportunities
coming soon!

