

Granting Program to Support *Phragmites* Adaptive Management

2025 REQUEST FOR GRANT PROPOSALS

Deadline: Sunday, April 20, 2025

Distributed by the Great Lakes Commission with funding from the Great Lakes Restoration Initiative

SUMMARY

The Great Lakes Commission (GLC) is providing single year grant funding to support participation in the *Phragmites* Adaptive Management Framework (PAMF) and implementation of explicit associated *Phragmites* management actions through the Active Adaptive Management Program (AAMP). PAMF is an adaptive management and collective learning program that anyone managing *Phragmites* can join. Participants from around the Great Lakes basin voluntarily enroll to submit *Phragmites* monitoring and management data to bolster the PAMF predictive model, which uses participant data to continually ‘learn’ which management techniques and combinations are effective and efficient at reducing *Phragmites* infestations. In turn, the PAMF model predicts optimal management guidance for each site being managed based on the most up-to-date information collected from all the participants. This process repeats annually, reducing uncertainty with additional data collected. The overarching goal of PAMF is to determine best management practices for *Phragmites* in the Great Lakes. Projects selected under this request for proposals will fund activities during the PAMF reporting period of July 1, 2025 – July 31, 2026. Specific information about eligible activities is available in a section below. Eligible applicants must be U.S.-based state, local, or tribal units of government, lake associations/watershed protection groups, non-profit organizations, universities/colleges, and/or conservation groups. Grants will be awarded on a competitive basis and funding is not guaranteed. A projected total budget of \$317,000 will be available to applicants; individual grants are generally expected to range from \$5,000 to \$30,000 to benefit as many applicants as possible. However, no formal funding cap has been established. Award fund distribution is conditional on genetic verification of non-native *Phragmites* subspecies, a service that will be provided at no cost to all selected grantees. **The deadline for submitting proposals is 5:00 p.m. ET, Sunday, April 20, 2025.** This grant program is funded by the Great Lakes Restoration Initiative (GLRI); funding is provided by the U.S. Geological Survey (USGS) under Grant/Cooperative Agreement No. G23AC00436. Grants will be administered by the GLC. The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Geological Survey. Mention of trade names or commercial products does not constitute their endorsement by the U.S. Geological Survey.

INFORMATIONAL WEBINAR

A webinar for applicants will be offered on Wednesday, March 26, 2025, 11:00 a.m. – 1:00 p.m. Eastern to discuss funding priorities and the application process, receive tips for submitting competitive proposals, and ask questions of Great Lakes Commission staff. The webinar will be recorded and made available following the live event. Information on how to participate in the webinar is found below. One additional virtual question-and-answer period will be held from 12:00 – 1:00 p.m. Eastern on Monday, April 7, 2025. For more information, please contact Sam Tank at sam@glc.org or 734-396-6044.

Register for the webinar and Q&A [here](https://www.greatlakesphragmites.net/resources/webinars/) (https://www.greatlakesphragmites.net/resources/webinars/).

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BACKGROUND

This novel funding opportunity is available to new and seasoned managers within the U.S. Great Lakes region who are looking to manage non-native *Phragmites* and participate in the *Phragmites* Adaptive Management Framework (PAMF). Funding is intended to support one-year management and monitoring efforts, under PAMF protocols, at discrete *Phragmites* stands. In addition to receiving management funding, grantees will collect and contribute data to a collective learning initiative that will improve regional *Phragmites* best management practices, receive summary reports with basic analyses detailing treatment progress, and access the PAMF Web Hub for project data storage.

PAMF is an adaptive management program that relies on participatory data from *Phragmites* managers throughout the Great Lakes basin and surrounding watersheds. PAMF is designed to learn from the management actions of participating managers through a standardized data collection and submission process. The PAMF predictive model is run annually in August and structured to learn about the efficacy and efficiency of 10 management actions combined into 16 unique management combinations when paired with a set of annual monitoring reports from July, pre and post treatment. These combinations are timing specific, with one management action implemented during each of the three biological phases of *Phragmites* (translocating phase in the late summer-fall, dormant phase in the winter and early spring, and growing phase in the late spring-summer).

During passive implementation of PAMF, the model provides participants with predictive guidance on specific management combinations that are most likely to maximize efficiency and efficacy for each unit enrolled and active over the next 12 months. This iterative process repeats annually, and the model improves with each subsequent cycle. The management guidance informed by data will continue to reduce the uncertainty surrounding management outcomes, eventually leading to improved best management practices for *Phragmites* management across the Great Lakes and beyond.

To speed up model learning, additional full data packages (two July monitoring reports and three management reports) are needed. The implementation of these project funds will inform an active phase of PAMF, the Active Adaptive Management Program (AAMP), where specific management combinations are selected in lieu of receiving model guidance. Out of the 16 management combinations that PAMF tracks, a total of 12 combinations have been selected to see additional data. The combinations have been categorized into two tiers. Tier 1 contains the higher priority management combinations that will be considered for funding before tier 2 combinations. Of the 12 combinations, nine have been identified as tier 1 priority and three (indicated below with an asterisk) have been identified as tier 2 priority, including:

#	Translocating Phase (August – October)	Dormant Phase (November – March)	Growing Phase (April – June)
1	Glyphosate	Pre-Flood Clearing	Flood
2	Glyphosate	Remove Biomass	Rest
3	Glyphosate	Flood	Flood
4*	Glyphosate	Rest	Glyphosate
5	Glyphosate + Imazapyr	Remove Biomass	Rest
6	Glyphosate + Imazapyr	Flood	Flood
7*	Glyphosate + Imazapyr	Mechanical (and Leave Biomass)	Rest
8	Glyphosate + Imazapyr	Pre-Flood Clearing	Flood
9*	Imazapyr	Rest	Rest
10	Rest	Pre-Flood Clearing	Flood
11	Cut Underwater	Rest	Cut Underwater
12	Spading	Rest	Spading

See Appendix A for short descriptions of each management action and timing of management actions.

This funding will address the identified imbalance in capacity and ability to participate in past PAMF cycles. Online training will be provided for subrecipients to train them on standard data collection and submission protocols included in the program. Recipients will be expected to follow all local guidelines and requirements applicable at their project site(s), including obtaining relevant use permits and following state/tribal guidelines. “PAMF Monitoring Kits” will also be provided to each recipient and will include the necessary equipment to conduct the annual PAMF monitoring protocols. **This grant funding is intended to support participation in the *Phragmites* Adaptive Management Framework (PAMF) and implementation of associated *Phragmites* management actions.** For more details, please refer to the *Grant Specifications* and *Proposal Format and Requirements* sections of this RFP. Background information on the *Phragmites* Adaptive Management Framework and this funding opportunity is available online via the project’s website at:

<https://www.greatlakesphragmites.net/pamf/aamp-funding/>

GRANT SPECIFICATIONS

Grant Amount: Grants will be awarded on a competitive basis. **Funding is not guaranteed for each applicant.** Awards are expected to range between \$5,000 and \$30,000. However, awards outside of the expected range will be considered.

Funding Available: Up to \$317,000 total is available under this RFP.

Project Period: Projects are required to take place at least during the cycle period of July 1, 2025 – July 31, 2026.

Eligible Applicants: State, Tribal, or local units of government, lake associations/watershed protection groups, non-profit 501(c)(3) organizations, universities/colleges, conservation groups. Individuals (e.g., private landowners) are not eligible on their own and must apply on behalf of an eligible group. Applicants do not need to be physically located in the Great Lakes basin to apply for this funding. See Appendix B for Federally Funded Project Requirements.

- Interested non-eligible individuals are encouraged to work with local invasive species management organizations to apply for funding. A list of eligible organizations is available online: <https://www.greatlakesphragmites.net/resources/organizations/>
- Previously funded applicants are eligible to apply for an additional round of funding, which may include management units that were enrolled in the 2024/2025 AAMP cycle.

Geographic Scope: Activities must take place within areas invaded by non-native *Phragmites* including but not limited to wetlands, shorelines, riparian zones, roadsides, drainage areas, etc. Preference will be given to applicants that can show direct benefit to the Great Lakes. Activities do not need to take place within the Great Lakes basin to apply for this funding, so long as proposed activities and locations contribute substantially to the management of *Phragmites* in the Great Lakes basin. A map of the basin boundaries is available online: <https://areg.is/1ePILK0>

- Activities outside of the Great Lakes basin can be justified via a justification. Example justification: Lake XYZ in ABC County, which is immediately outside of the Great Lakes basin, has an established population of non-native *Phragmites* that is at risk of spreading into the basin proper.
- Applicants interested in applying for project work outside of basin boundaries or interested in combining with similar *Phragmites* efforts in Ontario are encouraged to reach out to the GLC point of contact prior to submittal.

Proposal Development: Applicants must develop proposals that include a project narrative and budget. Further guidance on these items is available below.

Eligible Activities:

A. Required activities to be included in all proposals:

- In general, activities eligible for funding under this RFP are those that manage non-native *Phragmites* and report monitoring and management data as stated under PAMF protocols.
- Enroll one or more management units of the appropriate size and conditions.
 - Required and recommended management unit specifications can be found in Appendix C.
- Management activities aligning with one or more of the 12 priority management combinations outlined in the *Background*.
 - All proposed work plans will be reviewed to ensure that they comply with any legal requirements in that jurisdiction. **Awards are conditional on proposed activities adhering to all relevant state and local regulations.**
- Grantee and any supporting project staff responsible for data collection and/or submission must complete and pass the provided virtual PAMF training course (approximately 2-hour time commitment).
- Grantee must follow protocols to collect and submit monitoring data in July 2025 and July 2026 as well as three management reports in between (due on November 1, 2025, April 1, 2026, and July 1, 2026).
- A semiannual financial report and final financial and narrative report of activities and expenditures. The semiannual financial report is due February 15, 2026 and final financial and narrative reports are due August 30, 2026.

B. Eligible expenses under this RFP include:

- Salary and fringe benefits of grantee and supporting project staff.
- Management supplies (e.g., herbicide, personal protective equipment, application supplies).
- Equipment rental.
- Contractor fees.
- Travel to management units.
- Outreach supplies (limited to a maximum of 10% or \$1,000 of budget and expenditures).
- Indirect costs (limited to a maximum of 25% salary and fringe benefits).

C. Activities that are NOT eligible for funding under this RFP include:

- Implementation of management combinations not included in this RFP.
- Non-incident management of invasive plants other than non-native *Phragmites*.
- Purchasing equipment (defined as single items costing \$5,000 or greater).
- Restoration of management sites post treatment.

PROPOSAL FORMAT AND REQUIREMENTS

Proposals must be no longer than five pages in length (not including budget and attachments), with the exception of an additional page allowed per additional management unit. For example, proposals with six unique management units proposed are allowed 10 pages total. Shorter proposals are strongly encouraged. Proposals must be formatted with standard 1” margins, 12-point font, and single-spaced. A fillable proposal template is available as a Word document at <https://www.greatlakesphragmites.net/pamf/aamp-funding/>. Proposals must contain the following numbered sections and information below:

A. Proposal Narrative

- 1) **Project Title and Abstract:** Provide a descriptive title for the proposed project (including the state/tribal lands where the project will take place) and a one-paragraph abstract summarizing the proposal (including number of management units and priority management combination(s) selected). Indicate the management combination by its number and full name from the table in the *Background* section (e.g., “#1-Glyphosate, Pre-Flood Clearing, Flood).”
- 2) **Applicant Information:** Name, address, and contact numbers for the applicant, including the primary contact (name, phone number, and email address).
- 3) **Applicant Background:** Brief description of the applicant (e.g., type of organization, nonprofit status).
- 4) **Statement of Qualifications:** Summarize the applicant’s professional experience as it relates to the general selection criteria listed.
- 5) **Work Plan:** Explain how the project will align with the goals and protocols of the *Phragmites* Adaptive Management Framework and specify which priority management combination(s) will be used to manage *Phragmites*. Include details of any associated communication plans.
- 6) **Project Location(s):** Satellite map (or similar) of each management unit to be enrolled and managed. If planning multiple management combinations, indicate which management combination will be used on which management units. In your map(s), include the following:
 - The name you will use to identify the management unit (e.g., “Crossroads Patch 1”, “XYZ Park”) either placed directly on the map or nearby in the narrative. Names should be unique and informative (e.g., “ABC Wildlife Refuge N”) rather than vague (e.g., “Management unit 1”).
 - A boundary line drawn to surround the management unit (the entire area over which you will be able to uniformly manage *Phragmites*).
 - An indication of scale, such as a scale bar. Narrative or map must also include an estimate of the management unit’s area (i.e., acres, hectares, square meters).
 - An indication of the location within the surrounding landscape, e.g., the latitude/longitude of the site, and/or nearby cross streets, cities, or other landmarks.
- 7) **Project Outcomes:** Describe the outcomes from the proposed project and connection to broader land use/management/ restoration goals.
- 8) **Permits/ Land Use Approval:** Written documentation of landowner approval and any required land use permits. Any planned management actions that require permits and/or certifications (e.g., herbicide application) should outline the plan for securing the required permits and include proof of necessary certifications. Knowledge and acquisition of required permits is the responsibility of the grantee. Copies of permits and landowner approvals can be added as attachments at the end of the proposal (see Section C. Attachments below).
- 9) **Project Team:** Names of the individuals who will conduct the work, including contractors; their specific responsibilities; and the approximate amount of time they will devote to the project.
- 10) **Project Schedule:** Indicate the work plan tasks in a timeline format for the project period of July 1, 2025 – July 31, 2026. Schedule should include time for collection of leaf samples for genetic testing, training, monitoring (July 2025 and July 2026), and management actions that will occur during the Translocating Phase (post-monitoring – October), Dormant Phase (November – March), and Growing Phase (April – June).

- 11) Commitment to Genetic Testing: Genetic testing of *Phragmites* in the proposed management unit required by all applicants to ensure that grant funds will be used to manage non-native *Phragmites australis* subsp. *australis*.
 - **Award fund distribution is conditional on genetic verification of non-native *Phragmites* subspecies. Genetic testing services will be provided at no cost to all selected grantees.**
 - Management units which have previously undergone genetic testing are not required to submit samples.
- 12) Commitment to Obtain Insurance: Applicants must agree to obtain, provide, and maintain liability and other insurance coverages at not less than the levels indicated below (see Section B. Project Budget - Insurance below) should their proposal be accepted.

B. Project Budget

Proposals must use the budget template included as Appendix D to itemize the following project costs, as described:

- a) **Salaries**: For each member of the project team, please specify title, number of hours, and hourly rate. An additional 10 – 15 hours per management unit should be included in salaries to cover participating in the required PAMF activities including initial training, collection of monitoring data, and submitting required PAMF reports.
- b) **Fringe benefits**: No formal limit on the rate of fringe benefits is established; however, the GLC reserves the right to request documentation of fringe benefit rate calculations.
- c) **Indirect costs**: Indirect costs are limited to 25 percent of salaries and benefits. Please include a cost rate calculation. Grantees must have a Negotiated Indirect Cost Rate Agreement (NICRA) in place to charge over 10%. Those without a NICRA can charge between 0-10% and those with can charge up to 25% of salary and benefits (which is the indirect rate limit set by this funding opportunity).
- d) **Contracts**: There are limits to costs for consultants or other contract work. The federal government caps the rate allowed for individual consultants, and consultant expenses exceeding these caps will not be allowed.
- e) **Direct costs**: Other eligible costs such as project supplies (management materials), staff/volunteer refreshments, etc. Please itemize and provide calculations for costs when applicable. Costs for “refreshments” are limited under this RFP to those necessary to ensure health and safety of staff and volunteers assisting with events in approved work plan. Previously supported capital purchases funded under prior RFP cycles will be reviewed and considered.
- f) **Travel**: Please provide a justification for the amount of travel funds requested, including event dates and location, number of travelers, mileage, etc., to the best of your ability. Mileage expenses are limited to federal per diem and mileage rates.
- g) **Equipment**: Equipment (costing \$5,000 or greater) is not an eligible cost under this funding opportunity.
- h) **Outreach supplies**: Expenses towards outreach are limited to 10% or \$1,000 of the proposal budget. This includes expenses for materials such as signage, printouts, or other materials used for public outreach and education on *Phragmites* management. All outreach materials are subject to review prior to approval.

Note that once a grant award is made, any unspent funds that may remain at the end of the grant period will not be reimbursed and must be returned to the GLC. Further, once an award is made, any budget change greater than \$1,000 per line item or 15 percent overall will require prior and written approval by the GLC.

Insurance

Successful applicants must agree to obtain, provide, and maintain liability and other insurance coverages at not less than the levels indicated below (including coverage for their employees working on the project) for the duration of

the project period. As part of the application, an authorized representative of the applicant organization is required to certify the organization's ability to meet the insurance requirements set forth below, without variance. A signed acknowledgement is a required part of the application.

The grantee will be required to provide a certificate of insurance coverage (COI) to the GLC prior to execution of the grant contract and will need to ensure that an updated COI is on file at the GLC through the end of the grant period. Should an applicant renege on its assurance that insurance requirements will be met, without variance, during the contracting phase of the potential award of funds, then the GLC will not proceed with contracting, and any offer of grant funding will be rescinded. The grantee must require that all contracted personnel or entities used by the grantee in performing the project work maintain the required insurances contained in this section for the duration of the grant period. **If necessary, insurance costs for the project may be included within the project budget.**

1. Commercial General Liability with the following minimum coverages:
 - \$2,000,000 General Aggregate
 - \$2,000,000 Products/Completed Operations Aggregate
 - \$1,000,000 Personal & Advertising Injury
 - \$1,000,000 Each Occurrence

Commercial General Liability policies shall contain cross liability endorsements.

Grantee must list the Great Lakes Commission as an ADDITIONAL INSURED or COVERED PARTY on the Commercial General Liability certificate, on a Primary and Noncontributory basis, with a Waiver of Subrogation.

2. If a motor vehicle is used to provide services or products under this Contract, the Grantee must have vehicle liability insurance on any auto including owned, hired, and non-owned vehicles used in Grantee's business for bodily injury and property damage as required by law with the following minimum limits:
 - \$1,000,000 Automobile Liability, including owned, hired, or non-owned vehicles (combined single limit for bodily injury and property damage)

Automobile Liability policies shall contain cross liability endorsements.

3. Workers' compensation coverage must be provided according to applicable laws governing the employees' and employers' work activities in the state in which the Project is located.
4. Employers' liability insurance with the following minimum limits:
 - \$1,000,000 Each Accident
 - \$1,000,000 Disease (each employee)
 - \$1,000,000 Disease (aggregate limit)

C. Attachments

Attachments do not count toward the page limit and can include permits, proof of necessary certifications, land use approvals, etc. Letters of support from other local partners are encouraged. Optional supporting documents will only be reviewed as they relate to the contents of the proposal and will not be considered as part of the proposal evaluation.

EVALUATION CRITERIA

Proposals will be evaluated and selected by the AAMP Task Force, consisting of a diverse selection of

representatives with *Phragmites* management expertise from the Great Lakes basin. As noted under the *Grants Specifications* section, priority will be given to proposals that can show direct benefit to the Great Lakes. In addition, consideration will be given to distribution of available funding in order to benefit as many sites as possible. Other general selection criteria include:

- Total number of management units included in the proposal, where applicants who include multiple management units will be given funding priority;
- Applicant’s capacity to successfully manage the grant and achieve the goals of the proposed project, including development of an achievable project timeline;
- Applicant’s commitment to managing non-native *Phragmites* through the implementation of one or more of the priority management combinations stated above with priority given to proposals implementing tier 1 combinations;
- Reasonableness, necessity, and eligibility (of costs) of the proposed budget for the level of work proposed and for the expected benefits to be achieved.

The GLC reserves the right to reject all or part of any work plan, and to negotiate specific work products and project budgets with applicants.

SCHEDULE

March 19, 2025:	Request for Proposals released
April 20, 2025:	Deadline for submitting proposals
May 19, 2025:	Earliest announcement of awards and request for genetic testing
July 1, 2025:	Earliest initiation of grant activities
July 31, 2026:	Latest conclusion of grant activities
August 30, 2026:	Latest submission of final reports and grant deliverables

REPORTING REQUIREMENTS AND FUNDING DISBURSEMENT

A narrative report is required during the grant period and will be due 30 days after the end of the project period. Financial reports will be due halfway through the project period and at the conclusion of the award. These reports shall be submitted to the GLC using the forms provided by the GLC. Payment to the grantee will be made in two installments:

- 90 percent upon receipt of the signed contract letter from the grantee
- 10 percent at the end of the project upon receipt and approval of narrative and financial reports

The first grant payment will be provided within 30 business days following receipt and approval of the contract letter; all other payments will be provided within 30 business days of receipt and approval of the narrative and financial reports noted above. The schedule for financial reports and funding disbursements is subject to change based on the proposed project period and will be negotiated between the GLC and the grantee. Final narrative and financial reports will be due within 30 days of the project end date and must demonstrate completion of all work plan tasks. The GLC will reserve the right to withhold the final payment (10 percent of the grant amount) pending completion of all work plan tasks and compliance with PAMF protocols.

SUBMITTAL INSTRUCTIONS

Proposals must be submitted electronically as a single PDF and must be received by the GLC no later than 5:00 p.m. ET on Sunday, April 20, 2025. Electronic submittals should be sent by email to sam@glc.org.

ADDITIONAL INFORMATION

The primary point of contact for this request for proposals is Sam Tank, Program Manager, Great Lakes Commission, 734-396-6055, sam@glc.org. Background information on the *Phragmites* Adaptive Management Framework is available online via the project's website (<https://www.greatlakesphragmites.net/pamf/aamp-funding/>) and in the PAMF Participant Guide (<https://bugwoodcloud.org/pamf/resources/PAMFParticipantGuideV5.0.pdf>).

APPENDIX A: PAMF Management Combinations, Timing, and Management Actions

1. Management Combinations and timing of PAMF activities

Each combination consists of three management actions (e.g., Cut Underwater, Rest, Cut Underwater) with one action for each management phase (i.e., translocating, dormant, and growing). You are asked to employ one of these management combinations per management unit (MU) in accordance with the management action descriptions in part 2, below.

Twelve of the PAMF management combinations are eligible for use under this funding:

	Translocating Phase (August – October)	Dormant Phase (November – March)	Growing Phase (April – June)
1	Glyphosate	Pre-Flood Clearing	Flood
2	Glyphosate	Remove Biomass	Rest
3	Glyphosate	Flood	Flood
4*	Glyphosate	Rest	Glyphosate
5	Glyphosate + Imazapyr	Remove Biomass	Rest
6	Glyphosate + Imazapyr	Flood	Flood
7*	Glyphosate + Imazapyr	Mechanical (and Leave Biomass)	Rest
8	Glyphosate + Imazapyr	Pre-Flood Clearing	Flood
9*	Imazapyr	Rest	Rest
10	Rest	Pre-Flood Clearing	Flood
11	Cut Underwater	Rest	Cut Underwater
12	Spading	Rest	Spading

Where * indicates tier 2 combinations (see *Background* section). Management actions must be completed within the window for each phase: August – October for the translocating phase, November – March for the dormant phase, and April – June for the growing phase.

Monitoring occurs annually during the month of July and must occur **at least one month** after the last management action took place.

2. Management action descriptions

Management actions in PAMF are the various types of *Phragmites* control efforts (e.g., Glyphosate, Rest, etc.), and implementation techniques are the specific ways in which a management action can be employed (e.g., glyphosate applied using a backpack sprayer or hand wicking). The specific implementation technique is left to your discretion and established best practices. There are three specific guidelines you should keep in mind when considering applications of PAMF management actions:

- a. Any management action applied to *Phragmites* within an MU should be applied consistently to **all** *Phragmites* within the MU.
- b. Multiple applications of the same management action are allowed within each management phase as long as they are applied consistently to all *Phragmites* within the MU each time.
- c. It is possible for the same management action to be applied in different ways, with the decision regarding implementation technique left up to the PAMF participant.

Herbicide actions

Herbicide treatments can be applied to an MU using any standard techniques including aerial broadcast (helicopter), ground-based broadcast (boom sprayer, backpack sprayer, etc.) or spot treatment (backpack sprayer, hand wicking, etc.).

- **Glyphosate**
 - Application of any approved chemical product that contains glyphosate as the active ingredient.
- **Imazapyr**
 - Application of any approved chemical product that contains imazapyr as the active ingredient.
- **Glyphosate + Imazapyr**
 - Application of any approved chemical product(s) that results in application of both glyphosate and imazapyr (or imazamox) as the active ingredients.

Mechanical actions

- **Remove Biomass**
 - All aboveground *Phragmites* biomass from within an MU is removed. Biomass can be removed either by physically cutting and removing *Phragmites* (mowing, excavating, etc.) or using a controlled burn throughout the MU.
- **Mechanical (and Leave Biomass)**
 - All aboveground *Phragmites* within an MU is cut or crushed and then all plant material is left inside the MU. Biomass can be mechanically cut (mowing, tilling, mulching, etc.) or crushed (rolling, etc.) using various techniques. Many kinds of equipment can be used to accomplish these approaches.
- **Spading**
 - *Phragmites* stems are cut below ground and the cut *Phragmites* is removed from the MU. This method is done by using a sharpened spade or shovel to sever the stem from the rhizomes just beneath the soil surface. If done correctly, the stem can be easily lifted from its position and the surrounding soil will fill the hole. All live stems are removed from the MU by either bagging and removing them from the site or placing them in a pile to burn.
- **Pre-Flood Clearing**
 - *Phragmites* is mechanically levelled (e.g., cutting, burning) in an MU in preparation for a flood. Pre-Flood Clearing can be carried out in one of two general strategies: leaving or removing the biomass. In the first case, managers can cut or crush as much of the aboveground biomass as possible using any technique/equipment (mow, roll, clip, etc.) and leave this material inside the MU. In the second case, managers can cut or burn as much of the aboveground biomass as possible using any technique/equipment (mow, excavate, clip, etc.) and remove any remaining material from the MU.
- **Cut underwater**
 - *Phragmites* stems are cut beneath the water level and as close to the substrate as possible. The water should cover all live and dead stems at the time of cutting in order to cut off the plant's oxygen supply. Cut Underwater management actions can be accomplished using many techniques ranging from hand tools (hedge shears, etc.) to gas-operated cutters (trimmer mounted on an amphibious vehicle, etc.). We recommend that you remove the cut *Phragmites* stems from the MU as the cuttings remain viable and can spread, although you may choose not to do so.

Other actions

- **Flood**
 - Water is allowed to cover all live *Phragmites* within the whole MU for at least one month. A controlled flood can be accomplished by using water-control structures (pumping, gates, etc.).
- **Rest (“Do nothing”)**
 - Under a Rest management action, no *Phragmites* control efforts take place within the MU for the entire management phase. In other words, the MU is allowed to grow naturally for the entire phase. Resting typically is not expected to control *Phragmites* plants. Sometimes rest treatments are advised when there is little *Phragmites* present or in conjunction with

other management actions (e.g., Glyphosate, etc.) in a different season. As long as you do not actively manage the *Phragmites* plants in your MU throughout the entire phase, we consider this a Rest management action with few exceptions.

Additional details and considerations for each management action can be found at https://bugwoodcloud.org/pamf/resources/Management_Actions_Details.pdf

APPENDIX B: Federally Funded Project Requirements

1. **Federal Award Information:** The Catalog of Federal Domestic Assistance (CFDA) title associated with this Project is U.S Geological Survey Research and Data Collection and the CFDA number is 15.808. The federal award number is G23AC00436, and this Contract is funded with Federal funds from the U.S. Geological Survey. By accepting this Contract, the Contractor agrees to comply with the requirements described below. A copy of the USGS Cooperative Agreement # G23AC00436 (Prime Award) is provided as Attachment B. Cooperative Agreement modifications issued from the USGS to the Commission for subsequent funding periods shall be provided to the Contractor upon request.
2. **Applicable Regulations:** The Contractor and recipients of any subcontracts under this Contract agree to comply with the following regulations, which are incorporated herein by reference. (Copies of these regulations can be obtained at: http://www.whitehouse.gov/omb/grants_docs.)
 - a. 2 CFR Part 200, "Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards," as implemented by the Department of the Interior in 2 CFR Part 1402 and 43 CFR Part 12.
 - b. 2 CFR Part 180, Governmentwide Debarment and Suspension (Nonprocurement)
 - c. 2 CFR Part 182, Governmentwide Requirements for Drug-Free Workplace (Financial Assistance)
 - d. 2 CFR Part 1400, Nonprocurement Debarment and Suspension
 - e. 2 CFR Part 1401, Requirements for a Drug Free Workplace (Financial Assistance)
 - f. 43 CFR Part 17, Nondiscrimination in Federally Assisted Programs of the Department of the Interior
 - g. 43 CFR Part 18, New Restrictions on Lobbying, including Appendix A, Certification Regarding Lobbying
 - h. 43 CFR Part 41, Nondiscrimination on the Basis of Sex in Education Program or Activities Receiving Federal Financial Assistance (*applies only if this award provides assistance to an education program or students*)

The terms and conditions of USGS awards flow down to subrecipients and contractors, unless a particular award term or condition specifically indicates otherwise.

3. **Federal Funding Accountability and Transparency Act (FFATA):** In accordance with the Federal Funding Accountability and Transparency Act (FFATA), the Contractor agrees to provide information to the Commission's Point of Contact, upon request, to assist with required reporting of subawards and executive compensation.
4. **System of Award Management and Universal Identifier Requirements:** Unless the Contractor is exempted from this requirement under 2 CFR 25.110, the Contractor agrees to maintain the currency of its information in the System of Award Management (SAM) until the final payment has been received by the Contractor. The Contractor must review and update the information at least annually after the initial registration, and more frequently if required by changes in the Contractor's information.

SAM is the Federal repository into which an entity must provide information required for the conduct of business as a recipient of Federal financial support. Additional information about registration procedures may be found at the SAM website (currently <http://www.sam.gov>).

5. **Research Integrity:** The Contractor must adhere to the Federal Policy on Research Misconduct, Office of Science and Technology Policy, December 6, 2000, 65 Federal Register (FR) 76260. The Federal Policy on Research Misconduct outlines requirements for addressing allegations of research misconduct, including the investigation, adjudication, and appeal of allegations of research misconduct and the implementation of appropriate administrative actions. The Contractor must promptly notify the Commission’s Project Contact when research misconduct that warrants an investigation pursuant to the Federal Policy of Research Misconduct is alleged.
6. **Access and Rights to Research Data and Other Intangible Property:**
 - A. Recipients that are institutions of higher education, hospitals, or non-profit organizations are required to release research data first produced in a project supported in whole or in part with Federal funds that are cited publicly and officially by a Federal agency in support of an action that has the force and effect of law (e.g., regulations and administrative orders). “Research data” is defined as the recorded factual material commonly accepted in the scientific community as necessary to validate research findings. It does not include preliminary analyses; drafts of scientific papers; plans for future research; peer reviews; communications with colleagues; physical objects (e.g., laboratory samples, audio or video tapes); trade secrets; commercial information; materials necessary to be held confidential by a researcher until publication in a peer-reviewed journal; information that is protected under the law (e.g., intellectual property); personnel and medical files and similar files, the disclosure of which would constitute an unwarranted invasion of personal privacy; or information that could be used to identify a particular person in a research study.
 - B. These requirements do not apply to commercial organizations or to research data produced by State or local governments. However, if a State or local governmental recipient contracts with an educational institution, hospital, or non-profit organization, and the contract results in covered research data, those data are subject to these disclosure requirements.
 - C. Requests for the release of research data subject to this policy are required to be made to USGS, which will handle them as FOIA requests under 43 CFR 2.25. If the data are publicly available, the requestor will be directed to the public source. Otherwise, the USGS Contract Officer, in consultation with the affected Recipient and the PI, will handle the request. This policy also provides for assessment of a reasonable fee to cover Recipient costs as well as (separately) the USGS costs of responding.
 - D. Rights to research data and other intangible property shall be distributed in accordance with 2 CFR 200.315.
7. **Conflict of Interest Disclosures:** The Contractor is responsible for notifying the Commission in writing of any actual or potential conflicts of interest that may arise during the life of this Contract. Conflicts of interest include any relationship or matter which might place the Contractor, the Contractor’s employees, or the Contractor’s subcontractors in a position of conflict, real or apparent, between their responsibilities under this Contract and any other outside interests. Conflicts of interest may also include, but are not limited to, direct or indirect financial interests, close personal relationships, positions of trust in outside organizations, consideration of future employment arrangements with a different organization, or decision-making affecting the award that would cause a reasonable person with knowledge of the relevant facts to question the impartiality of the Contractor, the Contractor’s employees, or the Contractor’s subcontractors in the matter. Upon receipt of such a notice, the Commission in consultation with the USGS Contracting Officer and the servicing Ethics Counselor will determine if a conflict of interest exists. If a conflict of interest exists, the USGS Contracting Officer will determine whether a mitigation plan is feasible. Mitigation plans must be approved by the USGS Contracting Officer in writing. Failure to resolve conflicts of interest in a manner that satisfies the government may be cause for termination of the award. Failure to make

required disclosures may result in any of the remedies described in 2 CFR 200.338, Remedies for Noncompliance, including suspension or debarment (see also 2 CFR Part 180).

8. **Audit Requirements:** In accordance with Uniform Guidance 2 CFR 200.501(a), the Contractor hereby agrees to obtain a single audit from an independent auditor **if their organization expends \$750,000 or more in total Federal funds in their fiscal year**. If this applies to the Contractor at any point during the Contract period, the Contractor must submit the SF-SAC and a Single Audit Report Package using the Federal Audit Clearinghouse's Internet Data Entry System (see <http://harvester.census.gov/fac/>) within nine months after the end of the Contractor's fiscal year or 30 days after receiving the report from the auditor and provide an additional copy to the Commission's Financial Operations Manager.
9. **Procurement Standards:** The Contractor agrees to comply with the Procurement Standards in 2 CFR Part 200 including those requiring competition when the Contractor and/or its subcontractor acquires goods and services from contractors (including consultants).
10. **Indirect Cost Rate Agreements:** The Contractor is entitled to reimbursement of indirect costs, subject to any statutory or regulatory administrative cost limitations, if they have a current Federally-approved indirect cost rate agreement or have submitted an indirect cost rate proposal to their cognizant federal agency for review and approval and a final rate has been determined by the cognizant agency. The Contractor is responsible for maintaining an approved indirect cost rate for the life of the Contract. Recipients with differences between their provisional rates and final rates are not entitled to more than the award amount, without prior approval from the USGS.

APPENDIX C: Management unit enrollment considerations

There are some important considerations when deciding which management units to enroll in PAMF:

1. Consider your ability to uniformly manage within your management unit. If you were thinking of applying different management techniques within one area, break it up into multiple management units instead. Only a **single** management combination (one management action per biological phase) may be applied at a given management unit.
2. There are also some practical considerations to make before mapping out your management unit. The boundaries will remain constant throughout the management unit's life in PAMF, so it may be helpful to consider if you will know where the bounds of your management unit are even as the *Phragmites* is reduced over time.
3. Management units must be a **minimum of 10 meters wide** to ensure all five monitoring quadrats fit within the area and to account for typical GPS device accuracy.
4. There is no maximum size limit but choosing a site that is too large or too small may lead to some challenges during monitoring. As such, it is recommended that management units be limited to 5 acres maximum.
5. If you are managing a very large area, you may want to consider splitting up a large unit into smaller units. This can help with accessibility issues that come with trying to monitor a large area.
6. Finally, if you are managing one large area or many smaller areas, consider enrolling a smaller portion of your area(s) as multiple management units that are representative of the larger areas you are managing.

APPENDIX D: Budget Template

BUDGET CATEGORIES	AMOUNT
1. PERSONNEL SALARIES: (Include name, title, hours, and hourly rate)	
Subtotal:	
2. FRINGE BENEFITS:	
Subtotal:	
3. INDIRECT COSTS: (Indicate rate calculation; maximum rate is 25% of salaries and benefits)	
Subtotal:	
4. DIRECT COSTS: (Supplies)	
Subtotal:	
5. CONTRACTUAL SERVICES: (Provide names of contractors and rates)	
Subtotal:	
6. OTHER: (Itemize; this includes project supplies, etc. in excess of the materials to be provided)	
Subtotal:	
7. TRAVEL:	
Subtotal:	
TOTAL REQUESTED FUNDS:	