Lessard-Sams Outdoor Heritage Council

DNR Statewide control and reduction of invasive Phragmites Phase I

ML 2027 Request for Funding

General Information

Date: 06/24/2026

Proposal Title: DNR Statewide control and reduction of invasive Phragmites Phase I

Funds Requested: $1,422,500

Confirmed Leverage Funds: -

Is this proposal Scalable?: Yes

Manager Information

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Location Information

County Location(s):

Eco regions in which work will take place:

Forest / Prairie Transition

Northern Forest

Southeast Forest

Prairie

Metro / Urban

Activity types:

Enhance

Priority resources addressed by activity:

Wetlands

Narrative

Abstract

A coordinated, comprehensive framework to reverse the spread of non-native, invasive Phragmites across Minnesota has eliminated about 1/3 of the patches across the state since 2017 (z.umn.edu/phragmites-story). This request expands the financial investment in reversing the spread by prioritizing on-the-ground control on public lands with Outdoor Heritage Fund (OHF). These funds will work alongside federal, state, and local dollars being used to curb the spread and extirpate patches of invasive Phragmites across Minnesota.

Design and Scope of Work

The Minnesota Department of Natural Resources (DNR), in collaboration with the University of Minnesota, leads a statewide effort to control non-native, invasive Phragmites at all known sites of establishment across the state (mnphrag.org). Early detection and mapping of invasive Phragmites has enabled a coordinated strategy to slow and reverse its spread statewide. The species is hugely problematic in wetlands in other Midwestern states, outcompeting native plants, increasing greenhouse gas emissions from wetlands, and reducing habitat utility to birds, invertebrates and fish. For nearly a decade, collaborators across the state have helped to detect, control, and monitor invasive Phragmites. This work will expand on previous successes by using OHF dollars to tackle invasive Phragmites work on public lands and waters across the state.

Component 1: OHF funding will be used to fund management of patches of invasive Phragmites (Phragmites australis subsp. australis) on public lands and waters that are not already controlled by other partners and funding sources such as: local (e.g., Community Action Duluth manages all invasive Phragmites in St Louis River Estuary), state (e.g., MN DOT manages on road right-of-ways), or federal funds like the Great Lakes Restoration Initiative (GLRI, which supports about $30,000-90,000 of control annually).

Component 2: OHF funding will enable work that supports the success of controlling invasive Phragmites, specifically: assessment surveys to select sites for control annually, winter biomass management to improve control effectiveness, and re-seeding and revegetation efforts to restore habitats in locations where invasive Phragmites has been eliminated.

Context: The discovery of invasive, non-native Phragmites at an early stage of establishment in Minnesota spurred a coordinated, comprehensive effort to reverse its spread in the state. Since 2017 this coordinated response has brought partners together from across the state, including University of Minnesota researchers, local government, conservation non-profits, the U.S. Fish and Wildlife Service (USFWS), Tribal Nations, and regional partners (more information at mnphrag.org). Our comprehensive approach is both reactive and preventative: simultaneously eliminating established infestations to promote native habitat recovery while protecting uninvaded habitats from future spread. Funding for annual treatment monitoring, detection of new patches, and coordination with local organizations has been secured annually through the GLRI since 2019. Management efforts are focused on "clearing counties" by targeting management in areas of the state with a limited number of small populations. Annual monitoring shows that since 2017, 29% of the 2,650 verified stands in the state have been eliminated. This

funding request aims to bolster the effort to reverse the spread of invasive Phragmites in Minnesota by investing in on-the-ground control work on public lands and waters.

Explain how the proposal addresses habitat protection, restoration, and/or enhancement for fish, game & wildlife, including threatened or endangered species conservation

Invasive Phragmites is one of the most studied invasive species in the world. Its impacts on fish and wildlife habitats are well documented (Hazelton et al., 2014). Studies have shown that dense Phragmites stands alter hydrology and decrease wetland plant biodiversity as well as bird, fish and invertebrate habitat use. They have also shown that invaded wetlands have increased greenhouse gas emissions, contributing to cascading effects on fish and wildlife populations through climate change.

Fortunately, research has also shown that invasive Phragmites can be effectively managed with appropriate techniques (Kettenring, 2013), especially when stands are relatively small—as the vast majority of stands in Minnesota currently are. Management at this stage increases the likelihood of habitat recovery and reduces risk of spread into new areas. A single invasive Phragmites seed head is estimated to contain 2,000 seeds. Therefore, it is critical to pursue effective measures now to contain and reverse the spread. Proactive management is well-documented to reduce control costs in the long-term—many states have spent more than this project request to manage Phragmites in single wetlands (Blanke et al., 2019).

What are the elements of this proposal that are critical from a timing perspective?

This funding request is time-sensitive due to the stage of invasive Phragmites spread in Minnesota, the management and cost effectiveness of the control strategy, and the need to sustain current momentum. The scale of invasion by invasive Phragmites has remained manageable due to the coordinated control work that has been underway for the last several years. Leaving stands unmanaged allows them to expand laterally in area through rhizomes and can contribute an incredible number of propagules to the landscape. Funding this work now will harness the momentum, complementary funding, necessary partnerships, and program infrastructure that has been developed in the past decade.

Describe how the proposal expands habitat corridors or complexes and/or addresses habitat fragmentation:

This work will primarily focus on protecting existing habitat corridors and complexes and preventing further fragmentation through habitat protection. The funding requested for revegetation work will be prioritized to bolster habitat corridors for relatively large sites where invasive Phragmites has degraded wetlands. By focusing on control at the landscape scale and restoring native vegetation on the heels of the control work (Hazelton et al., 2014), this project will recover habitat connectivity that is lost as invasive Phragmites displaces native vegetation and degrades habitat quality (Minchinton et al., 2006).

Which top 2 Conservation Plans referenced in MS97A.056, subd. 3a are most applicable to this project?

Minnesota DNR Strategic Conservation Agenda

Minnesota Statewide Conservation & Preservation Plan

Which LSOHC section priorities are addressed in this proposal?

Forest / Prairie Transition

Protect from long-term or permanent endangerment from invasive species

Metro / Urban

Protect from long-term or permanent endangerment from invasive species

Northern Forest

Restore forest-based wildlife habitat that has experienced substantial decline in area in recent decades

Prairie

Protect from long-term or permanent endangerment from invasive species

Southeast Forest

Protect from long-term or permanent endangerment from invasive species

Describe how this project/program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife:

This work prevents the large-scale habitat destruction that occurs with the establishment of expansive invasive Phragmites monocultures seen in many other parts of North America and to the east within the Great Lakes region. By working to control invasive Phragmites now, we avoid wetland degradation that would require a far greater scale of restoration intervention and avoid larger, future costs to manage the species and its impacts.

If this project/program does not have permanent outcomes, describe why it is important to undertake at this time:

Not applicable

Outcomes

Programs in forest-prairie transition region:

Improved aquatic habitat vegetation ~ *Across MN we have identified invasive Phragmites-impacted habitat that will be enhanced directly by this proposal. However, a key motivation for this work is that we are eliminating sources of seed production for the species, which in turn is protecting countless additional acres of wetlands from invasion by non-native Phragmites. Progress in control will be evaluated by region using total acres of invasive Phragmites, number of stands, mean size of stands, and the ratio of new to extirpated stands.*

Programs in metropolitan urbanizing region:

Improved aquatic habitat indicators ~ *Across MN we have identified invasive Phragmites-impacted habitat that will be enhanced directly by this proposal. However, a key motivation for this work is that we are eliminating sources of seed production for the species, which in turn is protecting countless additional acres of wetlands from invasion by non-native Phragmites. Progress in control will be evaluated by region using total acres of invasive Phragmites, number of stands, mean size of stands, and the ratio of new to extirpated stands.*

Programs in the northern forest region:

Improved aquatic habitat indicators ~ *Across MN we have identified invasive Phragmites-impacted habitat that will be enhanced directly by this proposal. However, a key motivation for this work is that we are eliminating sources of seed production for the species, which in turn is protecting countless additional acres of wetlands from*

invasion by non-native Phragmites. Progress in control will be evaluated by region using total acres of invasive Phragmites, number of stands, mean size of stands, and the ratio of new to extirpated stands.

Programs in prairie region:

Improve aquatic vegetation ~ *Across MN we have identified invasive Phragmites-impacted habitat that will be enhanced directly by this proposal. However, a key motivation for this work is that we are eliminating sources of seed production for the species, which in turn is protecting countless additional acres of wetlands from invasion by non-native Phragmites. Progress in control will be evaluated by region using total acres of invasive Phragmites, number of stands, mean size of stands, and the ratio of new to extirpated stands.*

Programs in southeast forest region:

Rivers, streams, and surrounding vegetation provide corridors of habitat ~ *Across MN we have identified invasive Phragmites-impacted habitat that will be enhanced directly by this proposal. However, a key motivation for this work is that we are eliminating sources of seed production for the species, which in turn is protecting countless additional acres of wetlands from invasion by non-native Phragmites. Progress in control will be evaluated by region using total acres of invasive Phragmites, number of stands, mean size of stands, and the ratio of new to extirpated stands.*

Per MS 97A.056, Subd. 24, Please explain whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.

This funding is not being used to supplant any other funding sources, but will be used to supplement federal Great Lakes Restoration Initiative funding, state Invasive Species and General Fund dollars, and multiple local partner funding sources that control nearly half of all known sites in the state.

How will you sustain and/or maintain this work after the Outdoor Heritage Funds are expended?

Statewide, we expect that as new stands continue to be discovered, this funding will bolster recent increases in the proportion of verified stands being eliminated. By the end of the proposed grant period, most known stands in Greater Minnesota should be eliminated. The state will then be in a position to conduct more intensive management to eliminate invasive Phragmites in regions where it is more prevalent (e.g., Metro, Mississippi River corridor below Lake City). Funding needs would thereby be reduced over time. It is critical to contain the spread and sustain the progress we have made to date to protect Minnesota from the vast, monotypic stands that have devastated wetlands in other parts of North America. As the statewide response drives down the extent of invasive Phragmites we expect that local partners will be capable of managing what remains during operational conservation work and maintenance.

Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2017-2030	Great Lakes Restoration Initiative - USFWS	Outstate to Metro control of invasive Phragmites	Continued coordination with local, state, federal, and tribal organizations	Annual monitoring of effectiveness
2027-2032	OHF - LSOHC	Control work to eliminate invasive Phragmites, with increased focus on public lands and waters	Site preparation and revegetation where needed	Monitoring of outcomes at site level to ensure no reinvasion and establishment of native vegetation

Provide an assessment of how your program may celebrate cultural diversity or reach diverse communities in Minnesota, including reaching low- and moderate-income households:

Protecting and restoring public lands and waters through this work helps ensure those resources continue to be available to all. Managing invasive Phragmites protects native ecosystems, which have cultural importance to Indigenous communities and many other Minnesotans. Our program coordinates with Tribal Nations and collaborates to ensure culturally sensitive management. Proactive invasive species management also reduces long-term costs that often fall upon taxpayers.

Activity Details

Requirements

Will restoration and enhancement work follow best management practices including MS 84.973 Pollinator Habitat Program?
Yes

Is the restoration and enhancement activity on permanently protected land per 97A.056, Subd 13(f), tribal lands, and/or public waters per MS 103G.005, Subd. 15 or on lands to be acquired in this program?
Yes

Where does the activity take place?

WMA

WPA

County/Municipal

Public Waters

Refuge Lands

Land Use

Will there be planting of any crop on OHF land purchased or restored in this program, either by the proposer or the end owner of the property, outside of the initial restoration of the land?
No

Will insecticides or fungicides (including neonicotinoid and fungicide treated seed) be used within any activities of this proposal either in the process of restoration or use as food plots?
No

Previous OHF Appropriations

Have you received OHF dollars through LSOHC for this program or project in the past?
No

Timeline

Activity Name	Estimated Completion Date
Year 1: Monitoring and assessment of public lands sites and prioritization of sites for control, knockdown, and seeding	July 2027
Year 1:Coordination, permissions, and permitting	August 2027
Year 1: Control work on extant stands of invasive Phragmites	October 2027
Year 1: Winter biomass knockdown	February 2028
Year 2: Completion of all control activities (see Year 1)	July 2028 - February 2029
Year 2: Site preparation and revegetation	May 2029
Year 3: Completion of control and revegetation activities (see Year 2)	July 2029 - May 2030
Year 4: Completion of control and revegetation activities (see Year 2)	July 2030 - May 2031
Year 5: Completion of control and revegetation activities (see Year 2)	July 2031 - May 2032

Budget

Totals

Item	Funding Request	Total Leverage	Leverage Source	Total
Personnel	-	$82,500	Invasive Species Account & General Fund	$82,500
Contracts	$1,402,000	-	-	$1,402,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	-	-	-	-
Professional Services	-	$250,000	Great Lakes Restoration Initiative - USFWS	$250,000
Direct Support Services	$20,500	-	-	$20,500
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	-	-	-	-
Supplies/Materials	-	-	-	-
DNR IDP	-	-	-	-
Grand Total	**$1,422,500**	**$332,500**	**-**	**$1,755,000**

Personnel

Position	Annual FTE	Years Working	Funding Request	Total Leverage	Leverage Source	Total
Aquatic Invasive Species Management Consultant	0.1	5.0	-	$82,500	Invasive Species Account & General Fund	$82,500

Amount of Request: $1,422,500
Amount of Leverage: $332,500
Leverage as a percent of the Request: 23.37%
DSS + Personnel: $20,500
As a % of the total request: 1.44%
Easement Stewardship: -
As a % of the Easement Acquisition: -

Leverage Funding Table

	Leverage Amount Committed	Leverage Amount Confirmed (of Committed Funds)	Leverage Amount Anticipated	Total Leverage
Amount:	$82,500	-	$250,000	$332,500
% of Total Leverage:	24.81%	0.0%	75.19%	

N/A

Detail leverage sources and confirmation of funds:
The DNR's invasive species program funded by the Invasive Species Account and the General Fund will support $82,500 of DNR Coordination. Great Lake Restoration Initiative grant is anticipated to support $50,000 annually ($250,000 for project period) for control.

Does this proposal have the ability to be scalable?
Yes

If the project received 50% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?
The sites to be managed would be reduced, with a focus on managing the outstate populations to clear counties. If the funding were reduced by 50% we could also decrease the re-vegetation component of the work for some sites where local recolonization may be marginally sufficient.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?
At a 50% funding, DSS would be reduced to $12,057.50 because part of DSS charges from DNR are on a per unit basis (see DSS description below). The personnel leverage funding would be unchanged because the coordination work does not scale by funding amount.

If the project received 30% of the requested funding

Describe how the scaling would affect acres/activities and if not proportionately reduced, why?
The sites to be managed would be reduced, with a focus on managing the outstate populations to clear counties. If the funding were reduced by 30% we could also eliminate reseeding costs and seek other funding for that component.

Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?
At a 30% funding, DSS would be reduced to $8686.10 because part of DSS charges from DNR are on a per unit basis (see DSS description below). The personnel leverage funding would be unchanged because the coordination work does not scale by funding amount.

What other dedicated funds may collaborate with or contribute to this proposal?

Contracts

What is included in the contracts line?
The work will be executed primarily via annual contracts for four types of work: control of invasive Phragmites in the fall of each year; assessment surveys and site selection during summer; winter biomass control; and revegetation and reseeding contracts.

Direct Support Services

How did you determine which portions of the Direct Support Services of your shared support services is direct to this program?
DNR applies $0.012 charge per dollar of request for financial support ($16,857 for this project), and fixed communication and planning support rates of $2,086 and $1,543 per internal units of funding ($3,629 for 1 allotment for this project).

Federal Funds

Do you anticipate federal funds as a match for this program?
Yes

Are the funds confirmed?
No

What is the approximate date you anticipate receiving confirmation of the federal funds?
October, annually.

Output Tables

Acres by Resource Type (Table 1)

Type	Wetland	Prairie	Forest	Habitat	Total Acres
Restore	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0
Protect in Fee w/o State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	0	0	0
Enhance	67	0	0	0	67
Total	**67**	**0**	**0**	**0**	**67**

Restoration/Enhancement Acres Breakdown of Existing Protected Lands (Table 1a.2)

	RESTORE: Lands acquired with OHF	RESTORE: Lands NOT acquired with OHF	ENHANCE: Lands acquired with OHF	ENHANCE: Lands NOT acquired with OHF
DNR Lands (WMA, State Forests, etc.)	-	-	-	21
Non-DNR Lands (city, state, federal, etc.)	-	-	-	46
Easements	-	-	-	-
Total	**-**	**-**	**-**	**67**

Total Requested Funding by Resource Type (Table 2)

Type	Wetland	Prairie	Forest	Habitat	Total Funding
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	$1,422,500	-	-	-	$1,422,500
Total	**$1,422,500**	**-**	**-**	**-**	**$1,422,500**

Acres within each Ecological Section (Table 3)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Acres
Restore	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0
Protect in Fee w/o State PILT Liability	0	0	0	0	0	0
Protect in Easement	0	0	0	0	0	0
Enhance	33	1	1	18	14	67
Total	**33**	**1**	**1**	**18**	**14**	**67**

Total Requested Funding within each Ecological Section (Table 4)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest	Total Funding
Restore	-	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-	-
Protect in Easement	-	-	-	-	-	-
Enhance	$710,400	$14,700	$29,600	$392,600	$275,200	$1,422,500
Total	**$710,400**	**$14,700**	**$29,600**	**$392,600**	**$275,200**	**$1,422,500**

Average Cost per Acre by Resource Type (Table 5)

Type	Wetland	Prairie	Forest	Habitat
Restore	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-
Protect in Easement	-	-	-	-
Enhance	$21,231	-	-	-

Average Cost per Acre by Ecological Section (Table 6)

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	N. Forest
Restore	-	-	-	-	-
Protect in Fee with State PILT Liability	-	-	-	-	-
Protect in Fee w/o State PILT Liability	-	-	-	-	-
Protect in Easement	-	-	-	-	-
Enhance	$21,527	$14,700	$29,600	$21,811	$19,657

Target Lake/Stream/River Feet or Miles

14.1 acres of Public Waters

Parcels

Sign-up Criteria?

Yes - Sign up criteria is attached

Explain the process used to identify, prioritize, and select the parcels on your list:

Invasive Phragmites is reported to the state using EDDMapS.org. Reports are verified by experts at the DNR and UMN, and sites are visited by DNR surveyors or a local partner. Sites are logged and tracked by the MNPhrag team (MNPhrag.org) and are ranked for priority for control work. For this project, we have selected from all stands in Minnesota those that are on public lands or waters and are not managed by another partner.

At a glance

As of May 2026

A decade of building capacity

2016 – Biologists note increasing reports of invasive *Phragmites* in Minnesota wetlands
2017 - ENRTF funds UMN project to determine extent, develop ID resources, explore management options
2019 – GLRI funds begin supporting work in Minnesota to control invasive *Phragmites*
2020 – CCMI begins annual statewide monitoring and surveillance
2021 – MDA lists non-native *Phragmites* as a prohibited-control noxious weed
2023 – ENRTF funds *Phragmites* remote sensing and revegetation research
2025 – More than 75% of stands were managed and 29% have been eradicated to date

Project webpages

mnphrag.org
z.umn.edu/phragmites-story

Quick facts

- A collaborative group of state, local, tribal, and federal partners have eliminated about 1/3 of invasive *Phragmites* stands in Minnesota
- A coordinated approach aims to prioritize control of scattered stands in greater Minnesota to reverse and prevent *Phragmites* expansion in outstate wetlands and public lands and waters

Contacts

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DEPARTMENT OF NATURAL RESOURCES

Statewide control and reduction of invasive *Phragmites*

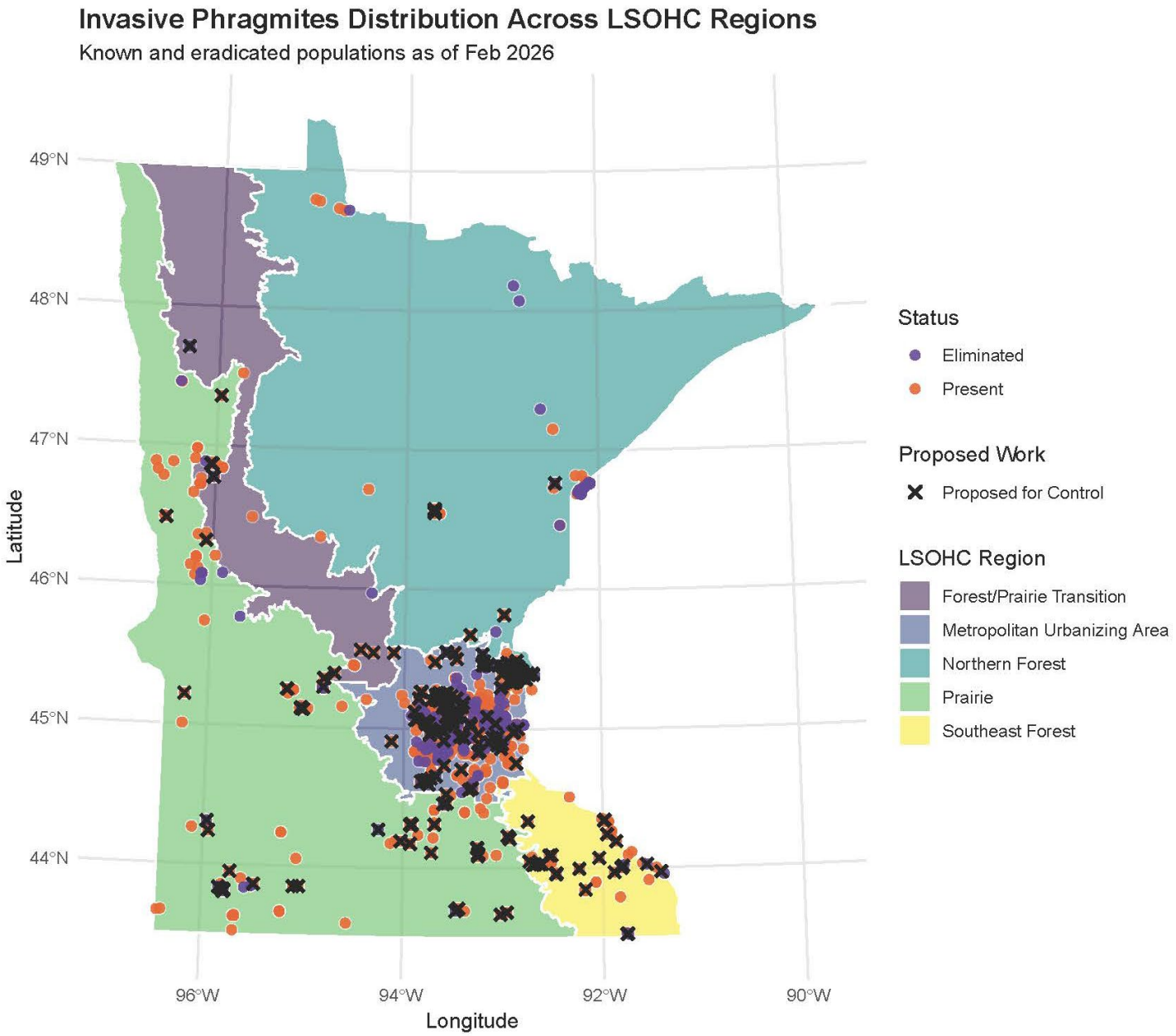
Expanding suppression of a destructive wetland invader

The discovery of invasive, non-native *Phragmites* at an early stage of invasion in Minnesota spurred a coordinated, comprehensive effort to reverse its spread in the state. Since 2017, this coordinated response has brought partners together from across the state, including University of Minnesota researchers, local government, conservation non-profits, USFWS, tribal agencies, regional partners, Conservation Corps of Minnesota and Iowa, and the Minnesota DNR.

The proposed work helps ensure that every known stand of invasive *Phragmites* can be controlled, complementing a statewide, integrated framework of monitoring, adaptive management, and revegetation. Timely action on invasive *Phragmites* is needed because:

- It is still at an early stage of invasion in Minnesota, and control efforts are most effective before large monocultures establish. Unmanaged, invasive *Phragmites* spreads aggressively via rhizomes and high seed production, and has negative impacts on wetland habitats.
- Active management is needed to sustain progress, strategically clear counties over time, and prioritize the protection and restoration of public lands and waters.
- Best practices can eliminate or reduce the density of *Phragmites* stands, limiting expansion and habitat damage.
- Current funding is not sufficient to fully manage at landscape scale.

An extensive invasive *Phragmites* monoculture (light green) in Wisconsin along Lake Michigan. (Photo: Heidi Springborn via Brock Woods, Wisconsin Department of Natural Resources)



Collaborators across the state have helped to detect, control and monitor invasive *Phragmites* statewide. Purple points show locations where invasive *Phragmites* has been eliminated, orange points show known locations where the plant is still present, and points marked with an X are to be managed through this project.

Annual Timeline

Management Activity	Timeline
Monitoring and assessment of previous years' work and prioritization of sites for control, knockdown, and seeding	June - August
Coordination, permissions, and permitting	August
Control work on extant stands of invasive Phragmites	August - October
Winter biomass knockdown	January - February
Site preparation and revegetation	April - May

Dense invasive *Phragmites* stands provide limited nesting and foraging value compared to native wetland communities. This work will benefit waterfowl and many other wildlife species by reducing established infestations to promote native habitat recovery and protecting uninvaded habitats from invasion.