



## Lessard-Sams Outdoor Heritage Council

Enhancing Black Ash Forests for Resilience and Habitat  
ML 2027 Request for Funding

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### General Information

**Date:** 06/22/2026

**Proposal Title:** Enhancing Black Ash Forests for Resilience and Habitat

**Funds Requested:** \$4,164,000

**Confirmed Leverage Funds:** -

**Is this proposal Scalable?:** Yes

### Manager Information

**Manager's Name:** Dale Gentry

**Title:** Director of Conservation

**Organization:** Audubon Upper Mississippi River

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### Location Information

**County Location(s):** Becker, Itasca, Cass and Aitkin.

**Eco regions in which work will take place:**

Northern Forest

**Activity types:**

Enhance

**Priority resources addressed by activity:**

Forest

## Narrative

### **Abstract**

We propose to enhance black ash wetland forests in north-central Minnesota by planting diverse, native, flood-tolerant tree species before emerald ash borer causes widespread tree loss. By maintaining forest cover, hydrology, and structural complexity, the project sustains critical habitat for migratory and breeding birds within a globally important bird area. Working in partnership with county, state, federal and tribal partners, it implements proactive, landscape-scale forest management across high-priority areas. The effort preserves biodiversity, supports climate resilience, and maintains long-term ecosystem function while generating scalable approaches for adapting forested wetlands to invasive species impacts.

### **Design and Scope of Work**

The forested habitats of north central Minnesota provide critical migratory stopover and breeding habitat for birds. The region includes the Chippewa Plains Globally Important Bird Area, which encompasses a vast landscape of large lakes, rivers, and streams interspersed with extensive upland and lowland forests. The Mississippi River forms the backbone of this ecosystem and is complemented by numerous smaller river systems throughout the region. A total of 244 bird species have been documented here, including 22 breeding warbler species and many species of waterfowl. Northern Minnesota also provides critical stopover habitat for long-distance migrants traveling to the boreal forest and supports among the highest diversity of breeding forest birds in the United States. While much of these habitats are on public lands, there are still threats to habitat quality. For this project, we are concerned about the impact the emerald ash borer is expected to have on black ash forested wetlands in northern Minnesota. Audubon Upper Mississippi River is committed to conserving these vital habitats, both as breeding areas and as part of the broader Mississippi River migration flyway.

Birds and other wildlife in this region depend on a diverse mosaic of lakes, rivers, wetlands, and upland forests. The mixed forest landscape includes aspen, paper birch, red oak, sugar and red maple, alongside coniferous species like red pine, white pine, balsam fir, and black spruce. Northern Minnesota also contains abundant black ash (*Fraxinus nigra*), more than any other state. Black ash is the northern most native ash in North America and it grows in areas that are frequently or continually flooded or areas where soils remain wet for much of the year. Most of Minnesota's black ash forests have not yet been impacted by the invasive emerald ash borer, but when they are, there is typically > 90% mortality, and we predict that black ash will be severely reduced in presence and ecological impact. Interestingly, the hydrology of the wetlands where black ash grows is partially regulated by the trees themselves. Plants conduct water from the soil, through their tissues, and into the atmosphere; a process called transpiration. When black ash die, less water is transpired into the atmosphere and water levels in these swamp systems can rise, creating conditions that make forest regeneration less likely. To maintain these systems as forested wetlands and high quality habitat, tree species that tolerate wet soils must be established before the mature ash are lost. Audubon will partner with land managers to proactively manage stands containing a significant component of black ash, ensuring these forested wetlands continue to be forest in order to sustain critical bird habitat and maintain the carbon currently stored in this special forest ecosystem.

This project is focused four critical areas: The Chippewa Plains Global Important Bird Area, the Tamarac NWR and McGregor Important Bird Areas, and the surrounding regions identified in Audubon's LCCMR migratory bird pitstop mapping project that includes areas within Beltrami, Itasca, Aitkin, Cass, Hubbard, Becker and Clearwater counties.

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

Underplanting young tree seedlings beneath the existing canopy of a mature forest in black ash wetlands helps protect and enhance habitat by maintaining the key features that wildlife depend on, forest cover and structural complexity. Black ash are a keystone species with a disproportionate impact on biodiversity. They shape the hydrology of the landscape and provide habitat in areas that are too wet for many trees. Black ash forests tend to contain trees across all size and age classes. This structure provides habitat variability that is reflected in the diversity of wildlife species, including species preferring younger or more mature forest cover and everything in between. Recent studies of the wildlife community in black ash habitats in Minnesota found over 50 bird breeding bird species including the state species of Special Concern Red-shouldered Hawk, American Goshawk and seven species of greatest conservation need: Veery, Least Flycatcher, Wood Thrush, Canada Warbler, Winter Wren, Rose-breasted Grosbeak, and Ovenbird. Black ash woodlands contained more species in total and housed more unique species than nearby upland forests and also provided important habitat to amphibians and small mammals. Given the important habitat provided by black ash and their unique niche in northern forests, they are identified as a keystone species.

While we are almost assured to lose black ash as a dominant species because of the emerald ash borer, recent research show that we don't have to lose forest cover in these wetlands. Underplanting of other Minnesota native species such as swamp white oak, silver maple, red maple, and American elm, before the black ash die, has been tested at numerous sites with positive results. Most of this underplanting is happening in trials and just beginning to be widely implemented. We propose to begin underplanting on a larger scale to help maintain long-term forest cover and structural complexity, which research shows is key to conserving overall wildlife diversity.

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

The emerald ash borer beetle that is killing native ash trees is continuing to be detected further and further north in Minnesota. The DNR confirmed emerald ash borer in Cass County in 2023 and Aitkin and Itasca counties in 2025. It is assumed that they are spreading through these counties and into others. Black ash are ecosystem engineers that influence hydrologic function in their wet soils. When black ash die, less water is transpired through their leaves into the atmosphere and water levels rise, which negatively influences the probability of tree regeneration. Because black ash influence not only habitat but hydrology, it is important that this work be initiated as soon as possible so trees can get established before the trees are lost. Therefore, if action is not taken, some of these sites could lose forest cover permanently.

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

This proposal expands habitat corridors and reduces fragmentation by maintaining and enhancing large, interconnected forested wetland systems across north-central Minnesota. The project is strategically situated within a region that already functions as a critical landscape-scale complex of lakes, rivers, wetlands, and upland forests, particularly within the Chippewa Plains Globally Important Bird Area and the broader Mississippi River flyway. These systems collectively support a high diversity of migratory and breeding birds and provide essential stopover habitat.

A central component of this effort is proactive management of black ash-dominated wetlands that are at high risk of degradation and conversion following emerald ash borer infestation. Without intervention, widespread ash loss can lead to hydrologic shifts, increased water levels, and failure of forest regeneration, ultimately fragmenting once-continuous forested wetland habitats. By planting flood-tolerant tree species and promoting structural and

species diversity before ash decline occurs, the project maintains these areas as closed-canopy forests rather than allowing transition to open or non-forested conditions. In doing so, the project sustains and strengthens habitat continuity across the landscape. Rather than restoring isolated parcels, it reinforces existing forest blocks embedded within a broader matrix of connected habitats, helping preserve functional movement corridors for migratory birds and other wildlife. This is especially important for species that depend on large, unfragmented forest tracts during migration and breeding like the Red-shouldered Hawk and American Goshawk.

Additionally, by partnering with public land managers and tribes, the project leverages coordinated, cross-boundary implementation that enhances connectivity at a landscape scale. This collaborative approach ensures that management actions are aligned across ownerships, further reducing fragmentation and supporting resilient, contiguous forest habitat complexes over time.

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

Minnesota DNR Nongame Wildlife Plans

Other : Chippewa National Forest, Ash Diversification Project, Environmental Assessment

### **Which LSOHC section priorities are addressed in this proposal?**

#### **Northern Forest**

Restore and enhance habitat on existing protected properties, with preference to habitat for rare, endangered, or threatened species identified by the Minnesota County Biological Survey

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

Minnesota contains more Black Ash than any other state in the U.S. Permanently losing these forests to herbaceous wetlands would cause a dramatic loss of habitat, carbon and ecosystem function. This project will restore forest structure and function in black ash wetlands threatened by emerald ash borer by underplanting a diverse mix of native tree species beneath existing ash canopies. Underplanting allows new cohorts of trees to establish in advance of canopy loss, helping maintain continuous forest cover, hydrologic stability, and habitat values critical to wildlife, including forest-dependent birds.

Our approach focuses on selecting native, climate-adapted, flood-tolerant species suited to anticipated site conditions following ash mortality. Species may include swamp white oak, silver maple, red maple, and American elm, with site-specific mixes informed by hydrology, soils, and light availability.

Partnership is central to this effort. We will coordinate with federal and state agencies, tribes, researchers, and land managers to align restoration strategies, share data, and scale successful approaches across the region. This project builds on established collaborations in floodplain and wetland forest restoration across the Upper Mississippi River basin. By proactively underplanting ahead of ash loss, this project will sustain forest cover, support biodiversity, and maintain ecosystem services in black ash wetlands. It will also generate practical guidance for large-scale adaptation to emerald ash borer in similar forest systems across the region.

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

NA

## Outcomes

### Programs in the northern forest region:

Improved availability and improved condition of habitats that have experienced substantial decline ~  
*Outcomes will be measured by the total number of acres enhanced by contracts paid for by this grant.*

### 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 request is not supplanting or substituting for any previous non-Legacy Fund funding used for the same purpose. The proposed work represents new or expanded conservation activities and does not replace prior funding sources.

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

This project is designed to establish self-sustaining forests that will persist beyond the Outdoor Heritage Fund investment. By underplanting diverse, site-appropriate tree species beneath existing ash canopies, we are initiating succession pathways that will continue to develop with minimal long-term intervention once seedlings are successfully established.

Long-term stewardship will be supported through ongoing partnerships with federal, state and country agencies, tribes, local land managers, and conservation organizations already engaged in black ash wetland management. These partners have a demonstrated commitment to maintaining restored sites through periodic monitoring, invasive species management, and, where necessary, supplemental planting or protection.

We will incorporate project sites into existing forest inventory and monitoring efforts to track survival, growth, and habitat outcomes over time. This ensures that maintenance needs are identified early and can be addressed through partner programs and future funding opportunities.

In addition, this project will generate transferable methods, species selection guidance, and performance data that inform broader adaptation efforts. By building local capacity and integrating this work into long-term management plans, we ensure that investments made through OHF continue to deliver ecological benefits well into the future.

### Actions to Maintain Project Outcomes

Year	Source of Funds	Step 1	Step 2	Step 3
2030	USFS	Seedling survival monitoring	Assessment of need for follow up treatment	Follow up management if necessary

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

This program is intentionally designed to engage diverse communities across Minnesota, including tribal nations, rural communities, and low- and moderate-income households, while recognizing the deep cultural significance of black ash wetlands. A central component of the project is collaboration with tribes and public land managers to steward bottomland hardwood forests in north-central Minnesota. Black ash is culturally vital to Ojibwe communities, who have long relied on these wetlands for traditional practices, including basketmaking and other cultural uses. By working to maintain black ash wetlands as functioning forested systems, rather than allowing them to transition to open, waterlogged conditions following emerald ash borer impacts, this program helps sustain the ecological foundation that supports these cultural traditions. In this way, the project honors and

reinforces the relationship between the Ojibwe people and black ash ecosystems, recognizing that protecting habitat is also a form of cultural respect and continuity. The program also prioritizes inclusive engagement and equitable access to conservation benefits. Much of the work occurs on public lands and in rural northern Minnesota landscapes, where communities may have fewer resources to respond to large-scale forest health threats. By securing public funding and coordinating restoration activities such as tree planting and forest management, the program ensures that ecological and economic benefits, such as improved forest resilience, wildlife habitat, hunting lands, and potential local contracting opportunities, are broadly shared and not limited to higher-resourced landowners. In addition, the project’s focus on maintaining forest cover to support migratory birds contributes to the protection of a globally significant flyway that connects communities across geographic and cultural boundaries. Overall, this program advances a model of conservation that is both ecologically impactful and culturally responsive; supporting biodiversity, strengthening partnerships with tribal nations, and ensuring that the benefits of Minnesota’s natural heritage are shared inclusively across communities.

### 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?**

Other : National Forests

County/Municipal

State Forests

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**

<b>Activity Name</b>	<b>Estimated Completion Date</b>
Hire new forest ecologist as project manager	September 2027
Implement a portion of the Habitat Management Action Plans for restoration and enhancement recommendations on public and tribal lands to benefit targeted bird species.	June 2028
Complete all habitat enhancements on public and tribal lands.	June 2031

**Budget**

**Totals**

Item	Funding Request	Total Leverage	Leverage Source	Total
Personnel	\$582,000	-	-	\$582,000
Contracts	\$3,093,000	-	-	\$3,093,000
Fee Acquisition w/ PILT	-	-	-	-
Fee Acquisition w/o PILT	-	-	-	-
Easement Acquisition	-	-	-	-
Easement Stewardship	-	-	-	-
Travel	\$11,000	-	-	\$11,000
Professional Services	-	-	-	-
Direct Support Services	\$375,000	\$500,000	Audubon Private Funds	\$875,000
DNR Land Acquisition Costs	-	-	-	-
Capital Equipment	-	-	-	-
Other Equipment/Tools	-	-	-	-
Supplies/Materials	\$103,000	-	-	\$103,000
DNR IDP	-	-	-	-
<b>Grand Total</b>	<b>\$4,164,000</b>	<b>\$500,000</b>	-	<b>\$4,664,000</b>

**Personnel**

Position	Annual FTE	Years Working	Funding Request	Total Leverage	Leverage Source	Total
Grant Specialist	0.1	4.0	\$53,400	-	-	\$53,400
Conservation Director	0.15	4.0	\$101,700	-	-	\$101,700
Sr. Conservation Manager	0.3	4.0	\$175,100	-	-	\$175,100
Forest Ecologist	0.8	4.0	\$251,800	-	-	\$251,800

**Amount of Request:** \$4,164,000

**Amount of Leverage:** \$500,000

**Leverage as a percent of the Request:** 12.01%

**DSS + Personnel:** \$957,000

**As a % of the total request:** 22.98%

**Easement Stewardship:** -

**As a % of the Easement Acquisition:** -

**Leverage Funding Table**

	<b>Leverage Amount Committed</b>	<b>Leverage Amount Confirmed (of Committed Funds)</b>	<b>Leverage Amount Anticipated</b>	<b>Total Leverage</b>
Amount:	-	-	\$500,000	\$500,000
% of Total Leverage:	0.0%	0.0%	100.0%	

N/A

**Detail leverage sources and confirmation of funds:**

Our leverage is based on Audubon’s federally negotiated indirect cost rate of 24.66%. We are requesting reimbursement of 10% of eligible costs for administrative costs, utilities, and other expenses associated with implementation of project activities, and matching approximately 14%. We will raise these funds as the project proceeds.

**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?**

This project is scalable; the number of acres could be reduced proportionally. Acres of enhancement projects would be reduced if the project received 50% of requested funding.

**Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?**

Based on our experiences with other LSOHC supported projects, personnel and dedicated support staff are important to project success and more difficult to scale down, though possible. We will attempt to scale proportionally but scaling will not be even for all personnel.

**If the project received 30% of the requested funding**

**Describe how the scaling would affect acres/activities and if not proportionately reduced, why?**

This project is scalable; the number of acres could be reduced proportionally. Acres of enhancement projects would be reduced if the project received 30% of requested funding.

**Describe how personnel and DSS expenses would be adjusted and if not proportionately reduced, why?**

Based on our experiences with other LSOHC supported projects, personnel and dedicated support staff are important to project success and more difficult to scale down, though they could be reduced but not eliminated. We will attempt to scale proportionally but scaling will not be even for all personnel.

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

**Personnel**

**Has funding for these positions been requested in the past?**

Yes

**Please explain the overlap of past and future staffing and position levels previously received and how that is coordinated over multiple years?**

The Conservation Direct, Sr. Conservation Manager and Grant Specialist do receive a portion of their

funding from other OHF grants. We allocate our time specifically to the daily activities so our effort will be proportionally applied.

## **Contracts**

### **What is included in the contracts line?**

The contract line item is directed to enhancement projects. We will use Minnesota-based contractors and CCMI. Most projects will include under planting by hand of trees and shrubs, installation of tree tubes and stakes for protection, and thinning of overstory trees, and follow up brush saw release.

## **Travel**

### **Does the amount in the travel line include equipment/vehicle rental?**

Yes

### **Explain the amount in the travel line outside of traditional travel costs of mileage, food, and lodging**

All travel costs are for in state mileage or car rental, food and lodging to and from project sites, partner planning meetings, internal planning meetings, and regional events to share methods and outcomes.

### **I understand and agree that lodging, meals, and mileage must comply with the current MMB Commissioner Plan:**

Yes

## **Direct Support Services**

### **How did you determine which portions of the Direct Support Services of your shared support services is direct to this program?**

Our Direct Support Services is based on Audubon's federally negotiated indirect rate of 24.66%. In this proposal, we are requesting reimbursement of 10% of eligible costs from LSOHC for administrative costs, utilities, and other expenses associated with implementation of project activities, and matching approximately 14%.

## **Federal Funds**

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

No

**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	0	0	1,774	0	1,774
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1,774</b>	<b>0</b>	<b>1,774</b>

**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.)	-	-	-	100
Non-DNR Lands (city, state, federal, etc.)	-	-	-	1,674
Easements	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,774</b>

**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	-	-	\$4,164,000	-	\$4,164,000
<b>Total</b>	<b>-</b>	<b>-</b>	<b>\$4,164,000</b>	<b>-</b>	<b>\$4,164,000</b>

**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	0	0	0	0	1,774	1,774
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,774</b>	<b>1,774</b>

**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	-	-	-	-	\$4,164,000	\$4,164,000
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$4,164,000</b>	<b>\$4,164,000</b>

**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	-	-	\$2,347	-

**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	-	-	-	-	\$2,347

**Target Lake/Stream/River Feet or Miles**

## Parcels

### Sign-up Criteria?

No

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

Sites were selected within north-central Minnesota, focusing on the Chippewa Plains Global Important Bird Area, and the Tamarac and McGregor Important Bird Areas and surrounding high-priority migratory stopover areas within Beltrami, Itasca, Aitkin, Cass, Hubbard, Becker, and Clearwater counties. Site identification prioritized forested wetland systems dominated by black ash that are at high risk of emerald ash borer infestation and subsequent hydrologic change. Within this geography, we worked with public land managers, tribes, and agency partners to identify stands with a significant black ash component, intact forest structure, and strong potential to maintain forested conditions if underplanted in advance of ash mortality.

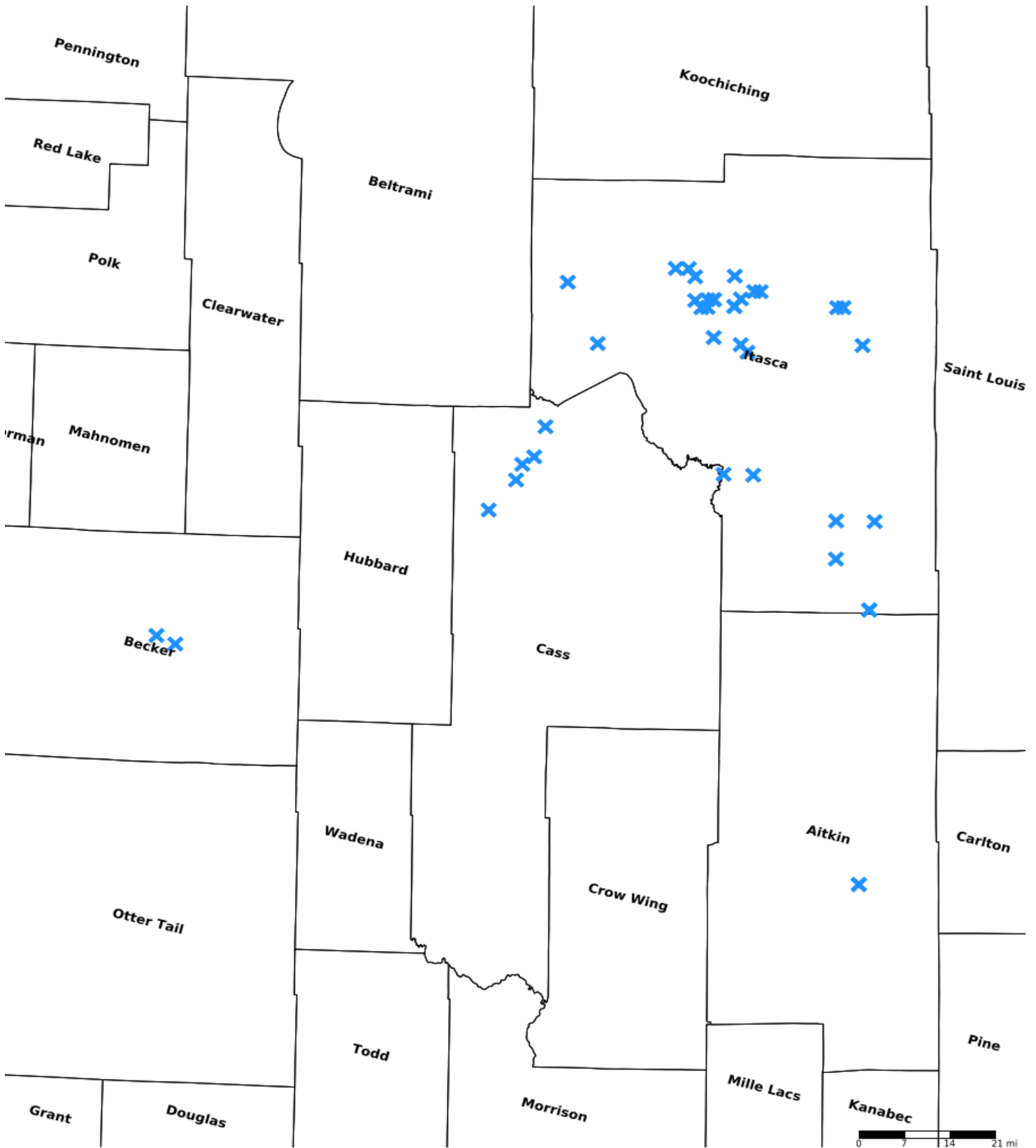
We prioritized sites embedded within larger, contiguous wetland and forest complexes to maximize landscape-scale habitat benefits, maintain connectivity, and support migratory bird use. Additional considerations included accessibility for planting, existing management interest, and suitability for establishing flood-tolerant, site-adapted tree species based on local hydrology and soils.

### Restore / Enhance Parcels

Name	County	TRDS	Acres	Est Cost	Existing Protection	Description
RLNWR 02	Aitkin	04724236	166	\$415,000	Yes	site prep, planting, staking, tree tubes
RLNWR 05	Aitkin	04724236	349	\$872,500	Yes	site prep, planting, staking, tree tubes
TNWR 01	Becker	14039208	25	\$37,500	Yes	site prep, planting, staking, tree tubes
TNWR 05	Becker	14039214	19	\$28,500	Yes	site prep, planting, staking, tree tubes
CNF 02	Cass	14430222	13	\$16,951	Yes	site prep, planting, staking, tree tubes
CNF 03	Cass	14429206	10	\$13,156	Yes	site prep, planting, staking, tree tubes
CNF 09	Cass	14529216	9	\$11,638	Yes	site prep, planting, staking, tree tubes
CNF 14	Cass	14331212	6	\$6,957	Yes	site prep, planting, staking, tree tubes
CNF 22	Cass	14430211	11	\$14,168	Yes	site prep, planting, staking, tree tubes
CNF 01	Itasca	14825228	34	\$43,389	Yes	site prep, planting, staking, tree tubes
CNF 04	Itasca	14825223	12	\$15,686	Yes	site prep, planting, staking, tree tubes
CNF 05	Itasca	05927201	3	\$4,301	Yes	site prep, planting, staking, tree tubes
CNF 06	Itasca	06027223	3	\$4,301	Yes	site prep, planting, staking, tree tubes
CNF 07	Itasca	14825222	5	\$6,325	Yes	site prep, planting, staking, tree tubes
CNF 10	Itasca	14725214	11	\$13,535	Yes	site prep, planting, staking, tree tubes
CNF 11	Itasca	05927211	3	\$3,795	Yes	site prep, planting, staking, tree tubes

CNF 12	Itasca	14825223	4	\$5,313	Yes	site prep, planting, staking, tree tubes
CNF 13	Itasca	14825205	9	\$11,511	Yes	site prep, planting, staking, tree tubes
CNF 15	Itasca	14925231	6	\$7,830	Yes	site prep, planting, staking, tree tubes
CNF 16	Itasca	14728223	12	\$14,775	Yes	site prep, planting, staking, tree tubes
CNF 17	Itasca	06026232	5	\$6,325	Yes	site prep, planting, staking, tree tubes
CNF 18	Itasca	14825227	17	\$21,505	Yes	site prep, planting, staking, tree tubes
CNF 19	Itasca	14926235	20	\$24,667	Yes	site prep, planting, staking, tree tubes
CNF 20	Itasca	14825220	11	\$13,535	Yes	site prep, planting, staking, tree tubes
CNF 21	Itasca	06026233	4	\$5,566	Yes	site prep, planting, staking, tree tubes
CNF 23	Itasca	05827201	17	\$21,125	Yes	site prep, planting, staking, tree tubes
CNF 24	Itasca	05927211	3	\$3,921	Yes	site prep, planting, staking, tree tubes
CNF 25	Itasca	05826207	12	\$15,053	Yes	site prep, planting, staking, tree tubes
Itasca Co 03	Itasca	05323232	72	\$91,080	Yes	site prep, planting, staking, tree tubes
Itasca Co 08	Itasca	05823206	7	\$8,855	Yes	site prep, planting, staking, tree tubes
Itasca co 01	Itasca	05627233	35	\$44,528	Yes	site prep, planting, staking, tree tubes
Itasca co 02	Itasca	05424228	12	\$15,686	Yes	site prep, planting, staking, tree tubes
Itasca co 03	Itasca	05323232	72	\$91,080	Yes	site prep, planting, staking, tree tubes
Itasca co 04	Itasca	05524233	19	\$24,541	Yes	site prep, planting, staking, tree tubes
Itasca co 06	Itasca	05523233	32	\$40,353	Yes	site prep, planting, staking, tree tubes
Itasca co 07	Itasca	14829212	43	\$54,268	Yes	site prep, planting, staking, tree tubes
Itasca co 09	Itasca	05924209	11	\$13,788	Yes	site prep, planting, staking, tree tubes
Itasca co 10	Itasca	05924210	5	\$6,704	Yes	site prep, planting, staking, tree tubes
Itasca co 11	Itasca	05626232	37	\$46,172	Yes	site prep, planting, staking, tree tubes

### Parcel Map



- Protect in Easement
- ▲ Protect in Fee with PILT
- Protect in Fee W/O PILT
- ★ Restore
- ✕ Enhance
- ⊕ Other

# Enhancing Black Ash Forests for Resilience and Habitat

ML 2027

Project Impact = 1,774 acres of Enhancement  
 Grant Request = \$4,164,000  
 Leverage = \$500,000  
 Total Project = \$4,664,000

## Project Overview

Audubon will enhance black ash wetland forests in north-central Minnesota by planting diverse mix of, native, flood-tolerant tree species before emerald ash borer causes widespread tree loss. By maintaining forest cover, hydrology, and structural complexity, the project sustains critical habitat for migratory and breeding birds within a globally important bird area.

Working in partnership with county, state, federal and tribal partners, we aim to proactively achieve landscape-scale forest management across high-priority areas. We will preserve biodiversity, support climate resilience, and maintain long-term ecosystem function.



Black ash forest in northern Minnesota (photo credit Eli Sagor)

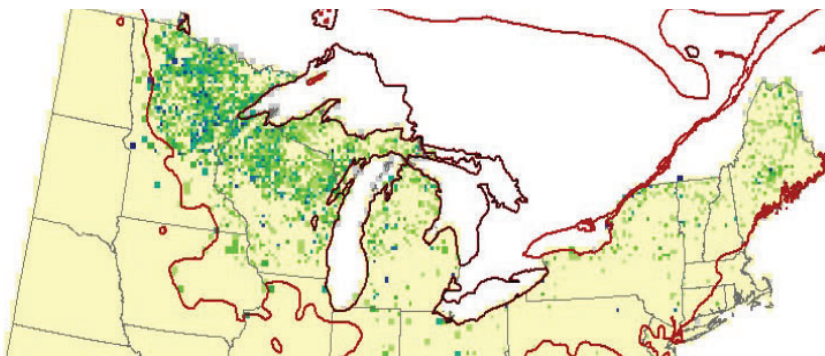
## Protecting Habitat

Underplanting young tree seedlings beneath the existing canopy of a mature forest in black ash wetlands has been tested through research and is ready to be scaled up. This technique helps protect and enhance habitat by maintaining the key features that wildlife depend on, forest cover and structural complexity. Black ash are a keystone species with a disproportionate impact on biodiversity. They shape the hydrology of the landscape and provide habitat in areas that are too wet for many trees. Black ash forests tend to contain trees across all size and age classes which provides habitat for a diverse suite of wildlife.

## Threats Addressed

A central component of this proposal is proactive management of black ash-dominated wetlands that are at high risk of degradation and conversion following emerald ash borer infestation. The emerald ash borer beetle that are killing native ash trees are continuing to be detected further north in Minnesota.

Without intervention, widespread ash loss can lead to hydrologic shifts, increased water levels, and failure of forest regeneration, ultimately fragmenting once-continuous forested wetland habitats. By planting flood-tolerant tree species and promoting structural and species diversity before ash decline occurs, the project maintains these areas as closed-canopy forests rather than allowing transition to open or non-forested conditions.



Black ash (*Fraxinus nigra*) distribution in the United States (source USDA climate change atlas). Minnesota has more black ash than any other state.

## Project Leadership

- Dr. Dale Gentry, Director of Conservation
  - Email: dale.gentry@audubon.org
- Rob Schultz, V.P., Executive Director
  - Email: rob.schultz@audubon.org

## Project Partners



Itasca County  
Minnesota



# Priority Areas and Species

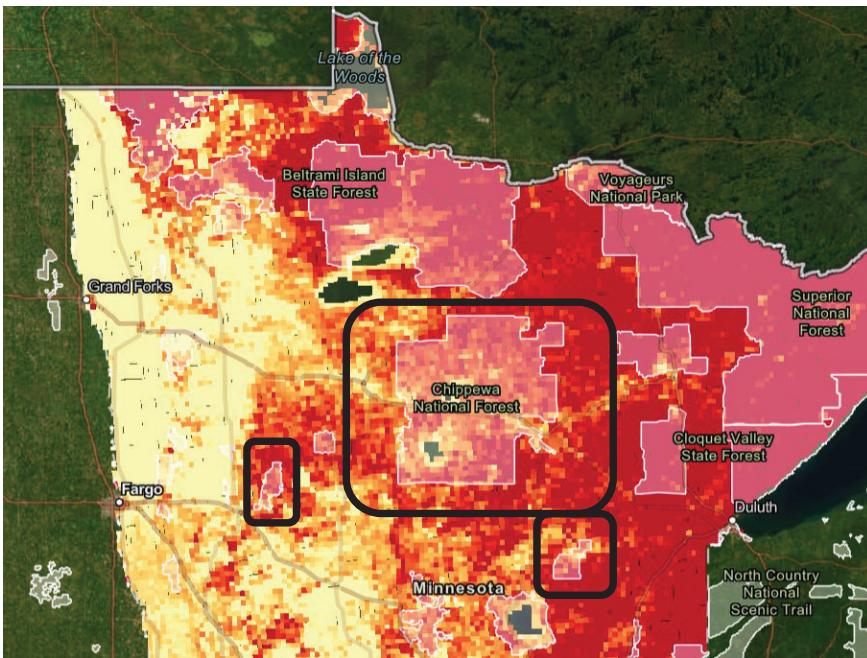


Figure 2. Important migration stopover areas for forest birds (source: Audubon Migration Stopover Mapping) and Important Bird Areas (in translucent white). Project areas identified in black boxes.

## Priority Areas

The Chippewa Plains Important Bird Area encompasses a vast landscape of large lakes, rivers, and streams interspersed with extensive upland and lowland forests. The Mississippi River forms the backbone of this ecosystem and is complemented by numerous smaller river systems throughout the region.

This project is focused four critical areas: The Chippewa Plains Global Important Bird Area, the Tamarac NWR and McGregor Important Bird Areas, and the surrounding regions identified in Audubon’s LCCMR migratory bird pitstop mapping project that includes areas within Beltrami, Itasca, Aitkin, Cass, Hubbard, Becker and Clearwater counties.

A total of **244 bird species** have been documented here, including 22 breeding warbler species and many species of waterfowl. Northern Minnesota also provides critical stopover habitat for long-distance migrants traveling to the boreal forest and supports among the highest diversity of breeding forest birds in the United States.



The Emerald ash borer is expanding its range northward in Minnesota

## Critical Work

The emerald ash borer beetle that is killing native ash trees are continuing to be detected further and further north in Minnesota. The DNR confirmed emerald ash borer in Cass County in 2023 and Aitkin and Itasca counties in 2025. It is assumed that they are spreading through these counties and into other nearby regions.

## Priority Species

Recent studies of the wildlife community in black ash habitats in Minnesota found over 50 breeding bird species including the state species of Special Concern Red-shouldered Hawk, American Goshawk and seven species of greatest conservation need: Veery, Least Flycatcher, Wood Thrush, Canada Warbler, Winter Wren, Rose-breasted Grosbeak, and Ovenbird.



Minnesota Species of Greatest Conservation Need found in Black Ash forests. Top Canada Warbler, middle Wood Thrush, bottom Red-shouldered Hawk

