



# Environment and Natural Resources Trust Fund

2021 Request for Proposal

## General Information

**Proposal ID:** 2021-231

**Proposal Title:** Urban Pollinator and Native American Cultural Site Restoration

## Project Manager Information

**Name:** Betsy Daub

**Organization:** Friends of the Mississippi River

**Office Telephone:** (651) 222-2193

**Email:** bdaub@fmr.org

## Project Basic Information

**Project Summary:** Three urban natural areas, including an iconic Native American cultural site, will be restored to native prairie and forest, with a focus on important pollinator and culturally significant native plants.

**Funds Requested:** \$250,000

**Proposed Project Completion:** 2024-06-30

**LCCMR Funding Category:** Methods to Protect, Restore, and Enhance Land, Water, and Habitat (F)

## Project Location

**What is the best scale for describing where your work will take place?**

Region(s): Metro

**What is the best scale to describe the area impacted by your work?**

Region(s): Metro

**When will the work impact occur?**

During the Project and In the Future

## Narrative

### **Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.**

This project is a partnership between FMR, City of St. Paul, Lower Phalen Creek Project (LPCP), and City of Maplewood to restore habitat in three natural areas with a focus on using native plants that are important for pollinators and hold significance to Native Americans.

Research shows urban natural areas are important in providing habitat for wildlife and pollinators (Baldock et al. 2019; Narango et al. 2018). However, urban open spaces are increasingly degraded by non-native invasive species and a lack of native vegetation. Under these conditions, they cannot provide habitat for native pollinators whose populations are in decline. Urban public lands could be providing significant wildlife habitat if planted to native vegetation.

This project includes restoration work at Bruce Vento Nature Sanctuary, which holds spiritual significance for Native Americans. Restoration here offers the opportunity to address cultural as well as ecological goals. While the site has undergone transformative restoration in the past 15 years, as a former industrial site additional management is needed to bring greater native plant diversity to the site that better reflect the historical plant communities and to better connect the restoration to interface with the future Wakan Tipi Center that is planned.

### **What is your proposed solution to the problem or opportunity discussed above? i.e. What are you seeking funding to do? You will be asked to expand on this in Activities and Milestones.**

At Bruce Vento Nature Sanctuary, FMR will: enhance the grasslands by using prescribed burns, spot-treating weedy plants, and overseeding with native prairie plants to gain a more diverse complement of native forbs that will be beneficial for pollinators. Invasive and non-native woody plants will also be removed from the grassland and wooded areas and replaced with native shrubs in suitable locations. All plants selections will be coordinated with the LPCP to incorporate those of particular cultural significance to the Dakota people. Management activities will similarly be coordinated to incorporate any specific practices of the Dakota.

At Maplewood's Carver and Applewood Preserves: Restoration focuses on invasive woody shrub and tree removal from all forested acres, as well as from degraded grassland acres at Carver. In forested acres, invasives will be replaced with native shrubs and trees in suitable locations, and native grass and wildflower seeding will help add structure and diversity to the sites. Prescribed fire will be used to maintain these areas, as well as to help reclaim grassland areas from woody encroachment. The project will also engage volunteers from the local community to help with planting and seeding native species.

### **What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?**

The project will restore 66 acres of wildlife and pollinator habitat at three urban sites in the Twin Cities metropolitan area. The sites are the 29-acre Bruce Vento Nature Sanctuary in St Paul, and two preserves in the City of Maplewood; Carver (27 ac) and Applewood (26 ac). All the sites are surrounded by a heavily populated urban area and offer the opportunity to inform people using these public spaces about the value of restoring habitat, providing for pollinators and other wildlife, creating climate change resilient natural areas, and the significance of native plants and wildlife to Native American culture.

## Activities and Milestones

### Activity 1: Habitat Enhancement at Bruce Vento Nature Sanctuary, Incorporating Culturally Significant Plants

**Activity Budget:** \$91,423

**Activity Description:**

This project will enhance 20 acres of grassland to native prairie and savanna and 5 acres of degraded woodland toward an oak forest community. Grassland enhancement will consist of prescribed burns and spot-treating weedy species, followed by seeding native forbs and grasses. At least 30 native prairie forbs will be seeded and will be selected for their value for pollinators, with blooms from spring to fall. No more than a third of the grassland will be burned and enhanced in any year, to protect pollinators. Woodland enhancement will consist of eradicating invasive woody plants and installing native shrubs and wildflowers.

All plant selection and management activities will be done in close coordination with the Dakota community through the LPCP, to incorporate culturally significant plant species and management processes.

**Activity Milestones:**

Description	Completion Date
Invasive woody removal	2022-03-31
Prairie planting and seeding #1	2022-11-30
Woodland planting and follow-up woody control	2023-11-30
Prairie seeding #2	2023-11-30

### Activity 2: Natural Resource Management Planning and Habitat Enhancement at Maplewood's Carver and Applewood Preserves

**Activity Budget:** \$158,577

**Activity Description:**

This activity will create natural resource management plans (NRMP) for both Carver and Applewood Preserves. Once in place, a total of 26 acres of forest and 15 acres of degraded grassland will be enhanced at the two sites. Grassland enhancement will consist of woody species removal and follow-up treatments. Forest enhancement will consist of invasive woody plant removal, follow-up treatments, prescribed burns, and installing native shrubs and wildflowers.

**Activity Milestones:**

Description	Completion Date
NRMP creation	2021-12-31
Invasive woody removal	2022-03-31
Native suppression seeding	2022-12-31
Invasive herbaceous control and follow-up woody control	2023-11-30
Woodland prescribed burns; woodland seeding and planting	2024-06-30

## Long-Term Implementation and Funding

**Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this be funded?**

FMR strategically focuses on areas within designated conservation corridors. We stay engaged with projects, landowners, partners and communities, ensuring continuous improvement and expansion of the habitat values at these sites, while protecting the public investment. FMR will continue to partner with the Cities of St. Paul and Maplewood and the Lower Phalen Creek Project to maintain the restorations. FMR's stewardship program also engages local community members in the restoration process, creating community support for site maintenance.

## Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Mississippi and Vermillion River Restoration of Prairie, Savanna, and Forest Habitat - Phase Ten	M.L. 2017, Chp. 96, Sec. 2, Subd. 08h	\$213,000
Metro Conservation Corridors Phase VIII - Prairie, Forest, and Savanna Restoration in Greater Metropolitan Area	M.L. 2015, Chp. 76, Sec. 2, Subd. 08e	\$276,000

## Project Manager and Organization Qualifications

**Project Manager Name:** Betsy Daub

**Job Title:** Conservation Director

**Provide description of the project manager's qualifications to manage the proposed project.**

Betsy holds a Master of Science degree in Resource Ecology and Management from the University of Michigan's School of Natural Resources and Environment. She has over 25 years of experience working in the environmental/conservation field. In her capacity as FMR's Conservation Director, she leads the organization's efforts to protect and restore land in the Mississippi River watershed. Her conservation work in Minnesota includes serving on the Minnesota Forest Resources Council, leading Audubon Minnesota's Important Bird Areas effort, and with the Minnesota DNR as project manager developing the online rare species guide.

**Organization:** Friends of the Mississippi River

**Organization Description:**

Friends of the Mississippi River (FMR) is a leading citizen organization working to protect and enhance the Mississippi River and its watershed in the Twin Cities area. We believe the tremendous ecological, cultural, scenic and recreational values of the river must be carefully tended to ensure that they continue to be shared equally by all citizens and that they endure for future generations. We accomplish these goals through three inter-related programs.

- **Land Conservation:** We work with public and private landowners to protect, restore and manage important natural areas along the river and its key tributaries.
- **Watershed Protection:** Working with citizens and local governments, we strive to draw attention to the health of local rivers, lakes and wetlands and bring citizen opinion to bear on decisions that improve water quality.
- **River Corridor Stewardship:** The Mississippi River cannot protect itself. We engage citizens in a variety of educational, recreational, and volunteer stewardship activities that give them the desire and the understanding to advocate on behalf of the river's public values at City Hall or the State Capitol.



## Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
<b>Personnel</b>								
Conservation Director		Grant and Project Manager			16%	0.09		\$3,480
Sr. Ecologist		Directing/Overseeing Project Implementation			16%	0.33		\$9,905
Bookkeeper/Accountant		manages expense data, submits invoices, all project accounting			16%	0.09		\$2,570
Volunteer Event Staff		Coordinates all volunteer activities at project site			16%	0.21		\$5,940
Ecologist		Directing/overseeing project implementation			16%	0.6		\$15,894
College Intern		Assist with restoration activities and planning			0%	0.06		\$710
							<b>Sub Total</b>	<b>\$38,499</b>
<b>Contracts and Services</b>								
TBD	Professional or Technical Service Contract	Pollinator surveys, weedy and woody control, spot spraying, prescribed burns, seeding forestry mow, purchase seed and shrubs, plant shrubs.				0		\$185,455
							<b>Sub Total</b>	<b>\$185,455</b>
<b>Equipment, Tools, and Supplies</b>								
	Tools and Supplies	Seed and shrubs for 66 acres of restoration	for seeding and planting on restored acres					\$24,638
							<b>Sub Total</b>	<b>\$24,638</b>
<b>Capital Expenditures</b>								
							<b>Sub Total</b>	<b>-</b>
<b>Acquisitions and Stewardship</b>								
							<b>Sub Total</b>	<b>-</b>
<b>Travel In Minnesota</b>								
	Miles/ Meals/ Lodging	Mileage	Travel to and from Bruce Vento Nature Sanctuary, Carver					\$1,408

			Preserve and Applewood Preserve					
							<b>Sub Total</b>	<b>\$1,408</b>
<b>Travel Outside Minnesota</b>								
							<b>Sub Total</b>	-
<b>Printing and Publication</b>								
							<b>Sub Total</b>	-
<b>Other Expenses</b>								
							<b>Sub Total</b>	-
							<b>Grand Total</b>	<b>\$250,000</b>

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
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## Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
<b>State</b>				
			<b>State Sub Total</b>	-
<b>Non-State</b>				
In-Kind	City of Maplewood	Provide 160 hours of in-kind staff support of restoration activities	Pending	\$4,800
In-Kind	Community volunteers in-kind support for restoration	Volunteers assist with restoration activities at project sites	Pending	\$7,200
In-Kind	FMR Stewardship Program staff	FMR staff organize and lead community volunteers in restoration activities at project sites	Pending	\$3,500
In-Kind	City of St. Paul support	Assist with weed control and prescribed burns	Pending	\$9,200
			<b>Non State Sub Total</b>	<b>\$24,700</b>
			<b>Funds Total</b>	<b>\$24,700</b>

## Acquisition and Restoration

### Parcel List

Name	County	Site Significance	Activity	Acres	Miles	Estimated Cost	Type of Landowner	Easement or Title Holder	Status of Work
Applewood Preserve	Ramsey	Site includes grasslands and forests and lies within the Mississippi River Flyway and within identified conservation corridors.	Restoration	26	1	\$89,680	Public		Has not begun
Bruce Vento Nature Sanctuary	Ramsey	Prairie, savanna and forests are represented here. The site is a significant cultural site for Native Americans. The site sits along the globally significant Mississippi Flyway for migrating birds and within identified conservation corridors.	Restoration	25	-	\$91,423	Public		Has not begun
Carver Preserve	Washington	Site includes grasslands and forests and is within the Mississippi Flyway and identified conservation corridors.	Restoration	27	-	\$68,897	Public		Has not begun
<b>Totals</b>				<b>78</b>	<b>1</b>	<b>\$250,000</b>			

## Restoration

### **1. Provide a statement confirming that all restoration activities completed with these funds will occur on land permanently protected by a conservation easement or public ownership.**

The majority of this project is on Minneapolis Park and Recreation Board land. Adjoining it, is a small amount of Minnehaha Academy land that is also part of the restoration project to be led by students. All public lands will remain permanently protected. The school has also expressed a desire to keep their portion of the property as restored oak savanna for student research and engagement in perpetuity.

### **2. Summarize the components and expected outcomes of restoration and management plans for the parcels to be restored by your organization, how these plans are kept on file by your organization, and overall strategies for long-term plan implementation.**

This environmental education project involves the restoration of 0.25 acres of oak savanna. FMR strategically focuses on areas within designated conservation corridors. We stay engaged with projects, landowners, partners and communities, ensuring continuous improvement and expansion of the habitat values at these sites, all while protecting the public investment. FMR will continue to partner with Minnehaha Academy and the Minneapolis Park Board and work with students and FMR's volunteer Gorge Leadership Team to maintain the restoration. Our future goals are to expand restoration at this site and throughout the Mississippi Gorge Regional Park.

### **3. Describe how restoration efforts will utilize and follow the Board of Soil and Water Resources "Native Vegetation Establishment and Enhancement Guidelines" in order to ensure ecological integrity and pollinator enhancement.**

FMR will use and follow the Board of Soil and Water Resources "Native Vegetation Establishment and Enhancement Guidelines" to ensure ecological integrity and pollinator enhancement on our project sites. Our project incorporates these guidelines in numerous ways, including:

- Sites are selected to be strategic in providing ecological benefits for the landscape in which they are a part
- Sites are selected within identified conservation corridors in order to make landscape connections to decrease habitat fragmentation and create habitat linkages across the landscape
- Restoration efforts will incorporate plant communities appropriate to the sites to provide food and habitat for species in need, particularly pollinators
- Restoration efforts will include methods to restore and maintain species diversity, including incorporating prescribed fire and the removal of invasive plants that displace native vegetation
- Efforts are designed to restore habitat complexes and natural corridors and buffer natural areas
- The restoration of a former farm field to prairie will help retain water on the land, reduce runoff and improve adjacent Mississippi River water quality
- Efforts include removal of invasive species
- The project practices adaptive management with its focus on monitoring and assessing restoration methods and outcomes

### **4. Describe how the long-term maintenance and management needs of the parcel being restored with these funds will be met and financed into the future.**

FMR has been strategically focused on specific areas within designated conservation corridors for over a decade. This has allowed us to stay engaged with projects, landowners, partners and communities, helping to ensure the continuous improvement and expansion of the habitat values at these sites, while protecting the public investment that has been made in them. Starting with individual parcels, our project areas have grown by orders of magnitude to protect and restore large tracts of land, ultimately creating contiguous greenway corridors. The restoration and enhancement project presented in this work program are all part of larger projects both in the sense of time and area. Because of human induced changes in the landscape, natural areas require management. While it is often the case that initial restoration and enhancement require relatively large investments initially, the costs often decrease over time as the goals for a site are met and the project enters a more maintenance level of activity, such as conducting period burns on

restored prairie. FMR is committed to conducting fundraising from both public and private sources, for the ongoing restoration and enhancement activities required at these sites over time.

**5. Describe how consideration will be given to contracting with Conservation Corps of Minnesota for any restoration activities.**

FMR's standard practice when contracting is to always provide the Conservation Corps of Minnesota with our Request for Proposals. We will continue this practice when contracting for restoration work for this project.

**6. Provide a statement indicating that evaluations will be completed on parcels where activities were implemented both 1) initially after activity completion and 2) three years later as a follow-up. Evaluations should analyze improvements to the parcel and whether goals have been met, identify any problems with the implementation, and identify any findings that can be used to improve implementation of future restoration efforts at the site or elsewhere.**

This project incorporates monitoring and evaluation at these sites. Pollinator surveys before and following restoration will help assess if restoration activities improve habitat for these organisms. Restoration outcomes will be monitored annually for multiple years following completion of the project. FMR's tradition of staying engaged at sites where we do restoration work, results in our being able to assess outcomes for many years following treatments.

## Attachments

### Required Attachments

#### *Map*

File: [c2143056-e61.pdf](#)

#### *Alternate Text for Map*

A map shows the Mississippi River and portions of the Cities of St. Paul and Maplewood. The three proposed restoration sites are identified. One photo shows an overgrown grassy area at Bruce Vento Nature Sanctuary. Another photo shows a wintery forested area in Applewood Preserve that is overgrown with invasive buckthorn.

#### *Financial Capacity*

File: [ff9be734-d97.pdf](#)

#### *Board Resolution or Letter*

Title	File
BoardResFinal	<a href="#">cbdb9a7a-c4f.docx</a>

### Optional Attachments

#### *Support Letter or Other*

Title	File
Maplewood Letter of Support	<a href="#">6793b90a-8a3.pdf</a>
LowerPhalenCreekLetter of Support	<a href="#">154de6bd-f2b.pdf</a>
St. Paul Letter Support	<a href="#">2a1f50d0-2d2.pdf</a>
St. Paul Letter Support	<a href="#">8cb23c49-339.pdf</a>

## Administrative Use

**Does your project include restoration or acquisition of land rights?**

Yes: Restoration,

**Does your project have patent, royalties, or revenue potential?**

No

**Does your project include research?**

No

**Does the organization have a fiscal agent for this project?**

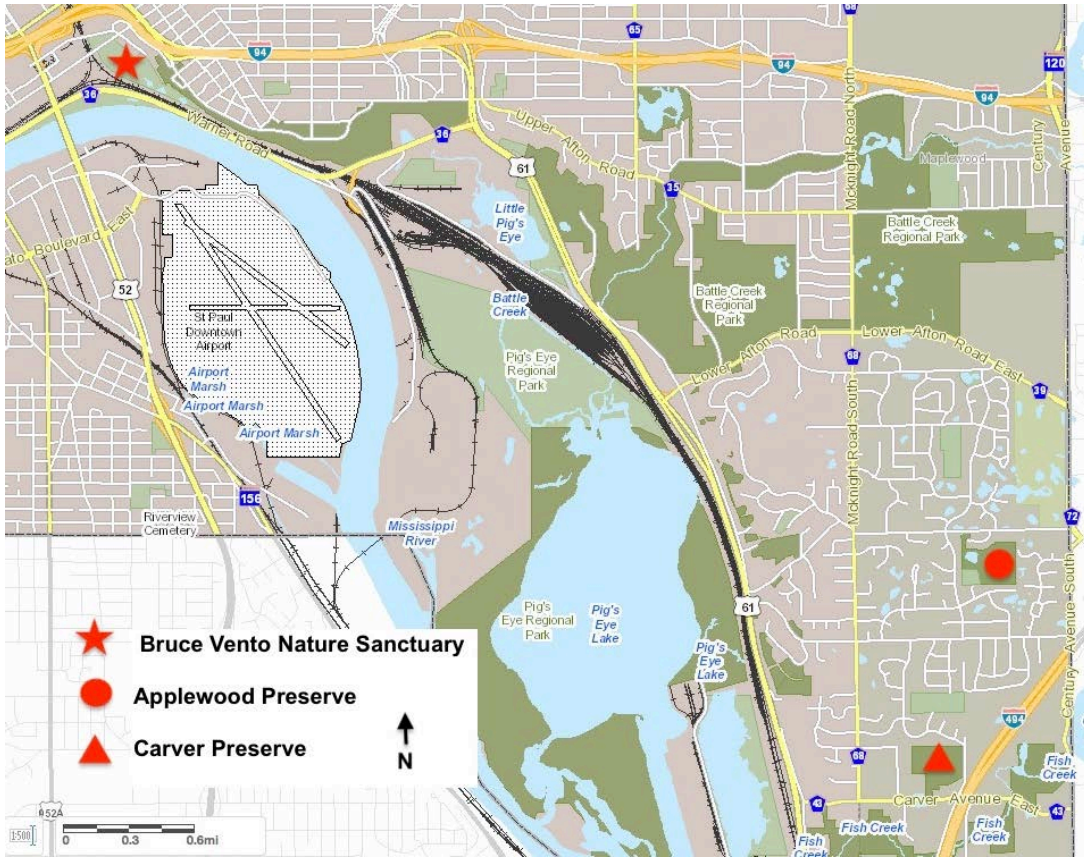
No





**Project Title: Urban Pollinator and Native American Cultural Site Restoration**  
**Friends of the Mississippi River**

2021 ENRTF  
 Funding Proposal



Increasing and linking habitats along the urban Mississippi River

Bruce Vento Nature Sanctuary is a Native American cultural site. Habitat enhancement will improve pollinator habitat and incorporate culturally significant native plant species.



Invasive buckthorn crowds out native plants – as seen at this former oak savanna in Maplewood's Applewood Preserve. FMR will create pollinator and wildlife- friendly habitat.