



Environment and Natural Resources Trust Fund

M.L. 2021 Draft Work Plan

General Information

ID Number: 2021-231

Staff Lead: Michael Varien

Date this document submitted to LCCMR: March 11, 2021

Project Title: Urban Pollinator And Native American Cultural Site Restoration

Project Budget: \$213,000

Project Manager Information

Name: Lisa Mueller

Organization: Friends of the Mississippi River

Office Telephone: (651) 222-2193

Email: lmueller@fmr.org

Web Address: <https://www.fmr.org/>

Project Reporting

Date Work Plan Approved by LCCMR:

Reporting Schedule: December 1 / June 1 of each year.

Project Completion: June 30, 2024

Final Report Due Date: August 14, 2024

Legal Information

Legal Citation:

Appropriation Language:

Appropriation End Date: June 30, 2024

Narrative

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.

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 62 acres of wildlife and pollinator habitat at three urban sites in the Twin Cities metropolitan area and write management plans for 78 acres. The sites are the Bruce Vento Nature Sanctuary in St Paul, and two preserves in the City of Maplewood; Carver and Applewood . All 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/wildlife to Native American culture.

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

Activities and Milestones

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

Activity Budget: \$77,123

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	March 31, 2022
Prairie planting and seeding #1	November 30, 2022
Woodland planting and follow-up woody control	November 30, 2023
Prairie seeding #2	November 30, 2023

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

Activity Budget: \$135,877

Activity Description:

This activity will create natural resource management plans (NRMP) for both Carver and Applewood Preserves. Once in place, a total of 24 acres of forest and 13 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	December 31, 2021
Invasive woody removal	March 31, 2022
Native suppression seeding	December 31, 2022
Invasive herbaceous control and follow-up woody control	November 30, 2023
Woodland prescribed burns; woodland seeding and planting	June 30, 2024

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Audra Robbins	City of Maplewood	Parks and Recreation Manager. Audra will oversee the approval and implementation of the FMR's NRMPs for the Applewood and Carver sites. Audra will also coordinate the involvement of the City of Maplewood's Natural Resources Coordinator, who will support the restoration of the sites with staff time for surveys, project support, and implementation.	No
Maggie Lorenz	Lower Phalen Creek Project	Executive Director. LCPC supported the creation of the NRMP update with a small grant. Maggie and other LPCP employees (Sam Wenger, Mishaila Bowman) will assist with volunteer recruitment, and volunteer restoration tasks throughout the restoration process.	No
Maggie Barnick	City of St. Paul	Natural Resources Technician. Maggie will support the restoration at the Bruce Vento Nature Sanctuary with staff time and in-kind project support, including mowing and spot spraying, and coordination of volunteer event support.	No

Dissemination

Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.

FMR will seek to promote and disseminate information about this project through earned media, FMR's website (www.FMR.org), electronic & printed newsletters, and volunteer stewardship events. FMR will acknowledge ENRTF in all publications and events that refer to these projects. FMR will work with landowners to erect signage where ENRTF grant funds are spent.

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
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
Mississippi and Vermillion River Restoration of Prairie, Savanna, and Forest Habitat - Phase Ten	M.L. 2017, Chp. 96, Sec. 2, Subd. 08h	\$213,000

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
College Intern		Assist with restoration activities and planning			0%	0.06		\$710
Ecologist		Directing/overseeing project implementation			16%	0.6		\$10,550
Volunteer Event Staff		Coordinates all volunteer activities at project site			16%	0.21		\$1,975
Bookkeeper/Accountant		manages expense data, submits invoices, all project accounting			16%	0.09		\$2,570
Sr. Ecologist		Directing/Overseeing Project Implementation			16%	0.33		\$12,370
Conservation Director		Grant and Project Manager			16%	0.09		\$3,045
							Sub Total	\$31,220
Contracts and Services								
TBD	Professional or Technical Service Contract	Pollinator surveys, weedy and woody control, spot spraying, prescribed burns, seeding forestry mow and plant shrubs.				0		\$153,798
							Sub Total	\$153,798
Equipment, Tools, and Supplies								
	Tools and Supplies	Seed and shrubs for 66 acres of restoration	for seeding and planting on restored acres					\$26,593
							Sub Total	\$26,593
Capital Expenditures								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
	Miles/ Meals/ Lodging	Mileage	Travel to and from Bruce Vento Nature Sanctuary, Carver					\$1,389

			Preserve and Applewood Preserve					
							Sub Total	\$1,389
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
							Sub Total	-
							Grand Total	\$213,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
---------------	---------------------	-------------	--

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	-
Non-State				
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	\$3,000
In-Kind	City of St. Paul support	Assist with weed control and prescribed burns	Pending	\$10,020
			Non State Sub Total	\$25,020
			Funds Total	\$25,020

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
Totals				78	1	\$250,000			

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	cbdb9a7a-c4f.docx

Optional Attachments

Support Letter or Other

Title	File
Maplewood Letter of Support	6793b90a-8a3.pdf
LowerPhalenCreekLetter of Support	154de6bd-f2b.pdf
St. Paul Letter Support	2a1f50d0-2d2.pdf

Difference between Proposal and Work Plan

Describe changes from Proposal to Work Plan Stage

FMR reduced about 10 acres from the proposal to the work plan to meet the reduced budget. This also enabled us to reduce staff hours in certain places. As of 3/21 we transferred \$5k from the Ecologist to the Senior Ecologist line items in the budget. We addressed the two recommended reviewer comments and revisions and made appropriate changes.

Additional Acknowledgements and Conditions:

The following are acknowledgements and conditions beyond those already included in the above workplan:

Do you understand and acknowledge the ENRTF repayment requirements if the use of capital equipment changes?

N/A

Do you agree travel expenses must follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

Yes, I agree to the Commissioner's Plan.

Does your project have potential for royalties, copyrights, patents, or sale of products and assets?

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

N/A

Does your project include original, hypothesis-driven 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.

