

**Environment and Natural Resources Trust Fund**

# M.L. 2021 Approved Work Plan

## **General Information**

**ID Number:** 2021-231

**Staff Lead:** Michael Varien

**Date this document submitted to LCCMR:** July 21, 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

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## **Project Reporting**

**Date Work Plan Approved by LCCMR:** July 20, 2021

**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:** M.L. 2021, First Special Session, Chp. 6, Art. 6, Sec. 2, Subd. 08l

**Appropriation Language:** $213,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with Friends of the Mississippi River to restore three urban natural areas, including an iconic Native American cultural site, to native prairie and forest with a focus on important pollinator and culturally significant native plants.

**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** |
| Prairie planting and seeding #1 | November 30, 2022 |
| Invasive woody removal | December 31, 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 |
| Native suppression seeding | December 31, 2022 |
| Invasive woody removal | 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. Ineli gible** | **% Bene fits** | **# FTE** | **Class ified Staff?** | **$ Amount** |
| **Personnel** |  |  |  |  |  |  |  |  |
| Ecologist |  | Directing/overseeing project implementation |  |  | 15% | 0.6 |  | $16,978 |
| Volunteer Event Staff |  | Coordinates all volunteer activities at project site |  |  | 15% | 0.21 |  | $1,675 |
| Bookkeeper/Accountant |  | manages expense data, submits invoices, all project accounting |  |  | 15% | 0.09 |  | $2,570 |
| Sr. Ecologist |  | Directing/Overseeing Project Implementation |  |  | 15% | 0.33 |  | $8,290 |
| Conservation Director |  | Grant and Project Manager |  |  | 15% | 0.09 |  | $3,045 |
|  |  |  |  |  |  |  | **Sub Total** | **$32,558** |
| **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 |  | $152,420 |
|  |  |  |  |  |  |  | **Sub Total** | **$152,420** |
| **Equipment, Tools, and Supplies** |  |  |  |  |  |  |  |  |
|  | Tools and Supplies | Seed and shrubs for 66 acres of restoration | for seeding and planting on restored acres |  |  |  |  | $26,598 |
|  |  |  |  |  |  |  | **Sub Total** | **$26,598** |
| **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 Preserve and Applewood Preserve |  |  |  |  | $1,424 |
|  |  |  |  |  |  |  | **Sub Total** | **$1,424** |
| **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 | 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** | **$20,220** |
|  |  |  | **Funds Total** | **$20,220** |

## **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](https://lccmrprojectmgmt.leg.mn/media/map/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](https://lccmrprojectmgmt.leg.mn/media/financial_capacity/ff9be734-d97.pdf)

#### ***Board Resolution or Letter***

|  |  |
| --- | --- |
| **Title** | **File** |
| BoardResFinal | [cbdb9a7a-c4f.docx](https://lccmrprojectmgmt.leg.mn/media/attachments/cbdb9a7a-c4f.docx) |
| ENRTF Background Check | [3ae192f5-cd9.pdf](https://lccmrprojectmgmt.leg.mn/media/attachments/3ae192f5-cd9.pdf) |

### **Optional Attachments**

#### ***Support Letter or Other***

|  |  |
| --- | --- |
| **Title** | **File** |
| Maplewood Letter of Support | [6793b90a-8a3.pdf](https://lccmrprojectmgmt.leg.mn/media/attachments/6793b90a-8a3.pdf) |
| LowerPhalenCreekLetter of Support | [154de6bd-f2b.pdf](https://lccmrprojectmgmt.leg.mn/media/attachments/154de6bd-f2b.pdf) |
| St. Paul Letter Support | [2a1f50d0-2d2.pdf](https://lccmrprojectmgmt.leg.mn/media/attachments/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