

Final Abstract

Final Report Approved on October 29, 2024

M.L. 2021 Project Abstract

For the Period Ending June 30, 2024

Project Title: Urban Pollinator and Native American Cultural Site Restoration

Project Manager: Alex Roth

Affiliation: Friends of the Mississippi River

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Funding Source:

Fiscal Year:

Legal Citation: M.L. 2021, First Special Session, Chp. 6, Art. 6, Sec. 2, Subd. 08I

Appropriation Amount: \$213,000

Amount Spent: \$210,213

Amount Remaining: \$2,787

Sound bite of Project Outcomes and Results

This project exceeded our original acreage goal of 62 and ultimately enhanced 64 acres of grassland and forest habitat for pollinators and wildlife, as well as created management plans to guide longterm maintenance at Bruce Vento Nature Sanctuary in St. Paul and Applewood and Carver Additional Preserves in Maplewood.

Overall Project Outcome and Results

This project was a partnership between Friends of the Mississippi River (FMR), the City of St. Paul, Wakan Tipi Awanyankapi, and the City of Maplewood to plan for and restore habitat in three urban natural areas - Bruce Vento Nature Sanctuary in St. Paul and Applewood and Carver Preserves in Maplewood - with a focus on using native plants that are important for pollinators and hold significance to Indigenous peoples. Research shows that urban natural areas are important in providing habitat for wildlife and pollinators; however, urban open spaces are increasingly degraded by non-native invasive species and a lack of native vegetation. Under these conditions, they provide little habitat for native pollinators whose populations are in decline. Restoration of these sites focused on invasive woody shrub and tree removal from 34 forest and 30 grassland acres. In forested areas, invasives were replaced with native shrubs and trees in suitable locations, and native grass and wildflower seeding helped add structure and diversity to these sites. On

grassland acres, prescribed fire was used to prep and maintain habitat, invasive species were removed, and native prairie seed was added to restore and enhance habitat. The project will also engaged over 50 volunteers from the local communities to help with invasive removal and the planting of 310 native trees and shrubs. Habitat at these sites was vastly improved through this work. Importantly, this project also provides a model for local partnerships for urban habitat improvement and public engagement.

Project Results Use and Dissemination

This project resulted in the creation of management plans that guide restoration for the City of Maplewood. FMR also wrote about the projects in both Activity 1 and 2 in our Mississippi Messages newsletter (Bruce Vento Nature Sanctuary; Applewood and Carver Preserves) and our Annual Report, and hosts permanent project pages on our website. All pieces acknowledge ENRTF and LCCMR. FMR and Wakan Tipi Awanyankapi, our native-led partner at the sanctuary, also worked together to produce a video on both the ecological and cultural importance of many of the plant species used in our restoration.



Environment and Natural Resources Trust Fund

M.L. 2021 Approved Final Report

General Information

Date: November 21, 2024

ID Number: 2021-231

Staff Lead: Mike Campana

Project Title: Urban Pollinator and Native American Cultural Site Restoration

Project Budget: \$213,000

Project Manager Information

Name: Alex Roth

Organization: Friends of the Mississippi River

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Project Reporting

Final Report Approved: October 29, 2024

Reporting Status: Project Completed

Date of Last Action: October 29, 2024

Project Completion: June 30, 2024

Legal Information

Legal Citation: M.L. 2021, First Special Session, Chp. 6, Art. 6, Sec. 2, Subd. 08I

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? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & 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	Approximate 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	Approximate 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 work 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	\$ Amount Spent	\$ Amount Remaining
Personnel										
Ecologist		Directing/overseeing project implementation			15%	0.6		\$13,978	-	-
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		\$5,290	-	-
Conservation Director		Grant and Project Manager			15%	0.09		\$3,065	-	-
							Sub Total	\$26,578	\$26,578	-
Contracts and Services										
Prairie Restorations, Inc	Professional or Technical Service Contract	Pollinator surveys, weedy and woody control, spot spraying, prescribed burns, seeding forestry mow and plant shrubs.				0		\$107,900	\$107,900	-
Landbridge Ecological	Professional or Technical Service Contract	Pollinator surveys, weedy and woody control, spot spraying, prescribed burns, seeding forestry mow and plant shrubs.				-		\$50,500	\$49,542	\$958
Ecological Strategies, LLC	Professional or Technical Service Contract	Natural Resource Management Planning services				-		\$6,500	\$6,500	-
							Sub Total	\$164,900	\$163,942	\$958
Equipment, Tools, and Supplies										
	Tools and Supplies	Seed and shrubs for 66 acres of restoration	for seeding and planting on restored acres					\$20,098	\$19,227	\$871
							Sub Total	\$20,098	\$19,227	\$871
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	\$466	\$958
							Sub Total	\$1,424	\$466	\$958
Travel Outside Minnesota										
							Sub Total	-	-	-
Printing and Publication										
							Sub Total	-	-	-
Other Expenses										
							Sub Total	-	-	-
							Grand Total	\$213,000	\$210,213	\$2,787

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	\$ Amount Spent	\$ Amount Remaining
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	\$7,200	-
In-Kind	FMR Stewardship Program staff	FMR staff organize and lead community volunteers in restoration activities at project sites	Pending	\$3,000	\$3,000	-
In-Kind	City of St. Paul support	Assist with weed control and prescribed burns	Pending	\$10,020	\$10,020	-
			Non State Sub Total	\$20,220	\$20,220	-
			Funds Total	\$20,220	\$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	25	1	\$89,680	Public		Completed
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	20	-	\$91,423	Public		Completed
Carver Preserve	Washington	Site includes grasslands and forests and is within the Mississippi Flyway and identified conservation corridors.	Restoration	19	-	\$68,897	Public		Completed
Totals				64	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
ENRTF Background Check	3ae192f5-cd9.pdf

Supplemental Attachments

Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other

Title	File
Maplewood Letter of Support	6793b90a-8a3.pdf
LowerPhalenCreekLetter of Support	154de6bd-f2b.pdf
St. Paul Letter Support	2a1f50d0-2d2.pdf
Carver NRMP	3c17c7c6-afc.pdf
Applewood NRMP	39bf5e15-1fc.pdf

Media Links

Title	Link
FMR's Applewood Park place page	https://fmr.org/applewood-preserve
FMR volunteer event posting	https://fmr.org/events/plant-trees-and-shrubs-applewood-preserve-woodland-full
New projects announcement	https://fmr.org/conservation-updates/meet-five-new-fmr-restoration-sites
FMR's BVNS place page	https://fmr.org/bruce-vento-nature-sanctuary-wakan-tipi
Video: Collaboration with Wakan Tipi Awanyankapi	https://fmr.org/updates/conservation/video-how-we-chose-plants-partnership-restoration-wakan-tipi

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 understand the Commissioner's Plan applies.

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

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

Work Plan Amendments

Amendment ID	Request Type	Changes made on the following pages	Explanation & justification for Amendment Request (word limit 75)	Date Submitted	Approved	Date of LCCMR Action
1	Amendment Request	<ul style="list-style-type: none"> • Budget - Personnel • Budget - Professional / Technical Contracts 	Two separate subcontractors were chosen for the restoration work at different sites, thus an extra line was added to the budget under professional/technical contracts to track those contracts separately. Because the total of the two contracts was \$20 less than our original ask, the \$20 was moved to personnel since there is no place to leave/hold uncontracted funds.	August 16, 2022	Yes	August 19, 2022
2	Amendment Request		FMR is requesting a change to our reporting timeline to August 1/February 1. Because FMR's two other LCCMR grants (2020-051 and 2023-044) have and will have reporting intervals of August 1st/February 1st, we would like to change our current reporting intervals to align with those two, rather than the current June 1/December 1. This will better align with our invoicing, improve internal efficiencies, and save internal staff time on all three grants.	December 27, 2022	Yes	December 28, 2022
3	Amendment Request	<ul style="list-style-type: none"> • Budget - Professional / Technical Contracts • Budget - Capital, Equipment, Tools, and Supplies 	We are requesting a budget shift of \$6,500 from Tools/Supplies to Professional/Technical contracts. Due to increased subcontractor costs, this will ensure that our current contract with Prairie Restorations will accomplish what is necessary in order to then spend the Tools/Supplies category (seed and plant material). This will ensure better overall outcomes for the entire project at our Applewood site.	April 6, 2023	Yes	April 6, 2023

4	Amendment Request	<ul style="list-style-type: none"> Budget - Professional / Technical Contracts 	We are requesting the addition of a subcontractor (Ecological Strategies) to supply natural resource management planning services to help us complete our Carver and Applewood NRMPs. This should have been done as part of our previous amendment request (April 23) that moved money from tools/supplies to Professional/Technical services to accommodate this and other restoration work, but was overlooked. FMR followed state subcontracting policies for NGOs.	July 18, 2023	Yes	July 19, 2023
5	Amendment Request	<ul style="list-style-type: none"> Budget - Personnel Budget - Professional / Technical Contracts 	We are requesting a budget shift of \$6,000 from Personnel to Professional/Technical contracts. These funds will be added to our current contract with Prairie Restorations for Applewood and Carver, and will allow them to accomplish additional woody and herbaceous invasive species follow-up on a time and materials basis this spring. This will utilize personnel funding beyond what we anticipate spending before June 30th and will ensure better overall outcomes for our Maplewood sites.	May 30, 2024	Yes	May 31, 2024
6	Amendment Request	<ul style="list-style-type: none"> Other Acquisition and Restoration - Parcel List 	At the request of LCCMR staff, FMR amended the parcel list acres to reflect the final number of acres restored at each site. The resulting acres are still higher than the original narrative goal of 62, but the table had listed the full site acreages for Applewood and Carver due to the completion of NRMPs for the total acres at both sites.	October 18, 2024	Yes	October 21, 2024

Status Update Reporting

Final Status Update August 14, 2024

Date Submitted: October 18, 2024

Date Approved: October 21, 2024

Overall Update

All activities and outcomes are now complete. At Bruce Vento Nature Sanctuary in St. Paul, 15 acres of grassland and 5 acres of forest were enhanced through a partnership with St. Paul Parks and Recreation and Wakáŋ Tipi Awaŋyaŋkapi. The project successfully enhanced both prairie and forest habitat, but also experienced some changes and delays due to both weather and the construction timeline for the new Wakáŋ Tipi Center at the site. At Maplewood's Applewood and Carver Preserves, management plans were written to guide restoration at both sites, and a total of 29 acres of forest and 15 acres of degraded grassland were enhanced at the two sites. Additional funding has now been secured to continue to enhance and maintain these sites. In total, 64 acres of habitat was enhanced with this funding, outstripping the original goal of 62 acres.

Activity 1

Work to enhance 15 acres of grassland to native prairie and savanna and 5 acres of degraded woodland to oak forest is now complete. Over the last 6 months, typical follow-up work for invasive woody removal has occurred in the forest units. Invasive herbaceous weeds like garlic mustard and burdock were spot-sprayed or mowed depending on phenology. In the prairie acres, establishment mows and herbicide applications have been completed on both established and establishing prairie units. Wakáŋ Tipi Awaŋyaŋkapi, FMR's project partner at the Sanctuary, held a volunteer planting event during the warm late winter to plant 200 bare-root native plants in the woodland edges, and the plant material purchase was also funded with this LCCMR grant.

(This activity marked as complete as of this status update)

Activity 2

A woodland prescribed burn was conducted on 5 acres at Applewood. Broadcast seeding to enhance the native forb and grass diversity took place following the burn. Additionally, garlic mustard was treated with spot spraying and invasive shrubs were brush cut in preparation for follow-up activities this fall with subsequent grant funding. FMR also hosted a tree and shrub planting event in the woodland to increase the diversity of native species and outcompete resprouting buckthorn; 110 native trees and shrubs were planted in June. At Carver, restoration activities took place in the woodland and prairie. The initial removal of woody invasive species occurred on 4 acres (new acres). Follow-up foliar treatment of invasive woody species and broadcast seeding of a native grass-dominated seed mix occurred on 5 previous removal acres. Additionally, piles of invasive woody material were burned. In the grassland, a prescribed burn took place on 10 prairie acres (new acres). This is the first step toward site prep in this unit. Cedar and non-native trees not fully consumed in the burn were removed and piled. Follow-up restoration activities will occur with subsequent funding. A total of 29 forest acres and 15 prairie acres were enhanced with this funding.

(This activity marked as complete as of this status update)

Dissemination

FMR has written a place page about Applewood preserve, which has been promoted in our newsletter and has a permanent link on our website.

<https://fmr.org/applewood-preserve>

We also acknowledge ENRTF funding in our calls for volunteers for our June 2024 Applewood planting event.

<https://fmr.org/events/plant-trees-and-shrubs-applewood-preserve-woodland-full>

All sites associated with this funding source have ENRTF signage affixed at the entrance.

Status Update Reporting

Status Update February 1, 2024

Date Submitted: February 22, 2024

Date Approved: February 22, 2024

Overall Update

Activity 1 - restoration and enhancement work at Bruce Vento Nature Sanctuary - is on track for completion. All invasive woody removal is complete, multiple follow-up treatments have occurred, and contractors have seeded and maintained the prairie reconstruction units. All acres have now received treatment, save for 5 acres of prairie that will not be enhanced due to the impending creation of the Wakan Tipi Center at the site. Activity 2 is on track for timely completion, with natural resource management plans (NRMPs) completed and restoration subcontractors conducting invasive woody removal and herbaceous forb treatment at both Applewood and Carver Preserves. Acres for Activity 2 have outstripped project goals, adding 5 additional acres over what was proposed. The remaining tasks include a spring prescribed burn and seeding. The overall project is on track to restore 62 acres of wildlife and pollinator habitat at three urban sites in the Twin Cities metropolitan area and create management plans for 78 acres.

Activity 1

At Bruce Vento Nature Sanctuary, follow-up management occurred on acres previously treated. Invasive herbaceous weed control occurred on 8.3 acres of the preserve in July and August. Several units seeded in June were mowed during this reporting period in August and September to limit weed pressure (4.5 acres). An enhancement seed mix was broadcast seeded in 7.6 acres of prairie and 1 acre of woodland in November to increase diversity. Invasive woody species were cut, stump treated, and piled in December in several prairie units (2.7 acres). Five acres of grassland that was originally slated for enhancement will no longer be enhanced due to the confirmed creation of the Wakan Tipi Center at the site in 2024. FMR has not yet spent any LCCMR funds on these acres and has instead used funding to further enhance acres at the site, including 3 prairie acres enhanced with supplemental seeding to augment forb diversity, three separate additional prairie acres of small Siberian elm control, and the addition of a buckthorn replacement mix seeding on one forest acre.

Activity 2

At Applewood Preserve, follow-up foliar treatment of invasive woody plants occurred in 10 acres of the woodland. Seed for woodland enhancement was purchased and will be broadcast in the winter. Woody species were managed in the 5-acre grassland unit by brush sawing in August. Invasive herbaceous weeds growing along trails in the grassland were cut and bagged to reduce seed spread. At Carver, invasive woody plants were hand cut, stump treated, and piled on 2.9 acres of woodland. A grass-only buckthorn replacement seed mix was purchased for 8 acres. It will be broadcast seeded in the next reporting period.

Dissemination

FMR and Wakan Tipi Awanyankapi, our native-led partner at the Bruce Vento Nature Sanctuary, worked together to produce a video on both the ecological and cultural importance of many of the plant species used in our restoration. The article, hosted on FMR's website, acknowledges ENRTF and LCCMR:

<https://fmr.org/updates/conservation/video-how-we-chose-plants-partnership-restoration-wakan-tipi>

To review: FMR has written about the projects in both Activity 1 and 2 in our Mississippi Messages newsletter (Bruce Vento Nature Sanctuary; Applewood and Carver Preserves) and our Annual Report (Applewood and Carver Preserves). In each case, we acknowledge the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources as the funder of this work.

Examples include the following newsletter pieces, also hosted on FMR's website:

<https://fmr.org/conservation-updates/meet-five-new-fmr-restoration-sites>

<https://fmr.org/bruce-vento-nature-sanctuary-wakan-tipi>

Status Update Reporting

Status Update August 1, 2023

Date Submitted: July 18, 2023

Date Approved: July 19, 2023

Overall Update

Activity - work at Bruce Vento Nature Sanctuary - is ahead of schedule - all initial woody removal is complete, multiple follow-up treatments have occurred, and contractors have prepped and seeded the prairie reconstruction units. All acres have now received treatment. Activity 2 is on track for timely completion, with natural resource management plans (NRMPs) completed and approved by City of Maplewood staff and restoration subcontractors conducting invasive woody removal and herbaceous forb treatment at both Applewood and Carver Preserve. The overall project is on track to 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.

Activity 1

Work to enhance 20 acres of grassland to native prairie and savanna and 5 acres of degraded woodland to oak forest is on schedule. In early June, contractors treated weeds a final time on the 8 acres of degraded grassland that is being restored to prairie. They drill-seeded the area in late June with a diverse prairie mix, focused on both pollinator and culturally significant species as noted in the NRMP. FMR conducted a breeding bird survey in June for the second year. Over the last 6 months, typical follow-up work for invasive woody removal has occurred in the forest units. The last piles of buckthorn, Tatarian honeysuckle, and Siberian elm were burned, and invasive herbaceous weeds like garlic mustard were spot sprayed or mowed depending on phenology. A rotation of similar methods is planned over the next 1 ½ years to shift the woodlands from being dominated by invasive plants to be comprised mostly of native species.

Activity 2

Our NRMP milestone is now complete, with both plans approved by the City of Maplewood. Ecological Strategies was hired to help with fieldwork and plan writing, allowing us the capacity to accomplish NRMP work. At Applewood Preserve, invasive woody removal was completed on the remaining 9 forested acres (all new acres) in January and February 2023. Removal consisted of hand-cutting and treating stumps on steep slopes and forestry mowing more level areas. In May, garlic mustard and invasive forbs were spot-treated throughout the entire 20 acres of forest at the site. At Carver, subcontracted work continues and is on track to meet all milestones and deliverables by the end of the grant.

Dissemination

No additional pieces have been written since our last update. To review: FMR has written about the projects in both Activity 1 and 2 in our Mississippi Messages newsletter (Bruce Vento Nature Sanctuary; Applewood and Carver Preserves) and our Annual Report (Applewood and Carver Preserves). In each case, we acknowledge the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources as the funder of this work.

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Status Update Reporting

Status Update February 1, 2023

Date Submitted: February 1, 2023

Date Approved: February 9, 2023

Overall Update

Work at Bruce Vento Nature Sanctuary (Activity 1) is ahead of schedule - all initial woody removal is complete, follow-up has occurred, and contractors have prepped and conducted spot sprays on the various prairie units. Natural resource management plans (NRMPs) have been drafted for Activity 2, and are still being reviewed for approval by City of Maplewood staff. Restoration subcontractors have been hired through a competitive RFP process at both Applewood and Carver Preserve, and subcontractors have continued initial woody removal as identified in the NRMPs. The project is on track to 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.

Activity 1

Work to enhance 20 acres of grassland to native prairie and savanna and 5 acres of degraded woodland to oak forest is on schedule. Initial woody removal has been completed on all acres, and woody follow-up treatments occurred this fall. Woodland herbaceous treatments occurred as well, making way for native plantings. Volunteers planted 120 native shrubs and trees in Unit K in September 2022. Two two-hour events engaged 31 community participants, with one event being a BIPOC-only planting event with 14 participants. Prairie maintenance has progressed with spot sprays, spot mows, and full site prep in some units. A volunteer planting event resulted in 296 plugs planted into high-quality units. A prescribed burn, originally planned for 2022, was delayed due to weather and will be pushed to 2023. Similarly, seeding will be delayed until spring 2023, as it was agreed that one additional round of spring prep would be beneficial to establishment success.

Activity 2

Contractors are currently conducting woody invasive species removal at both Applewood and Carver preserves through a combination of forestry mowing and hand work. This builds upon some initial woody removal work started earlier in the year and keeps us on track to complete this activity on-time. Our NRMP completion milestone is still experiencing delays due to reviews and edits, but this is not holding up any of the restoration work. Work on seeding and herbaceous invasive management will occur next year, and woody follow-up will continue in subsequent years.

Dissemination

No additional pieces have been written since our last update. To review: FMR has written about the projects in both Activity 1 and 2 in our Mississippi Messages newsletter (Bruce Vento Nature Sanctuary; Applewood and Carver Preserves) and our Annual Report (Applewood and Carver Preserves). In each case, we acknowledge the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources as the funder of this work.

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Status Update Reporting

Status Update December 1, 2022

Date Submitted: February 1, 2023

Date Approved: February 9, 2023

Overall Update

Work at Bruce Vento Nature Sanctuary (Activity 1) is ahead of schedule - all initial woody removal is complete, follow-up has occurred, and contractors have prepped and conducted spot sprays on the various prairie units. Natural resource management plans (NRMPs) have been drafted for Activity 2, and are still being reviewed for approval by City of Maplewood staff. Restoration subcontractors have been hired through a competitive RFP process at both Applewood and Carver Preserve, and subcontractors have continued initial woody removal as identified in the NRMPs. The project is on track to 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.

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<https://fmr.org/bruce-vento-nature-sanctuary-wakan-tipi>

Status Update Reporting

Status Update June 1, 2022

Date Submitted: August 16, 2022

Date Approved: August 19, 2022

Overall Update

Work at Bruce Vento Nature Sanctuary (Activity 1) is ahead of schedule - all initial woody removal is complete, and contractors are working on prairie maintenance in the various units. Natural resource management plans (NRMPs) have been drafted for Activity 2, and are currently being edited and reviewed for approval by City of Maplewood staff. Restoration subcontractors have been hired through a competitive RFP process at both Applewood and Carver Preserve, and subcontractors have begun initial woody removal as identified in the NRMPs.

Activity 1

Work to accomplish our stated milestones is ahead of schedule. Woody removal has been completed on all acres, and prairie maintenance has begun with some spot sprays and spot mows. A prescribed burn, originally planned for spring 2022, was delayed due to weather and will be pushed to 2023. Prairie maintenance work will continue through the summer, and woody follow-up work will begin in the fall. Plant material has been secured for the fall planting, and crews and volunteers will conduct the woodland plantings in fall 2022.

Activity 2

NRMP creation is slightly behind schedule owing to delays in the MOU and approval process with the City of Maplewood. However, these delays did not hinder our ability to hire subcontractors and begin initial invasive woody removal at both sites. NRMPs are slated to be completed and approved this summer, while woody removal is progressing ahead of schedule and should be complete before the end of 2022. Work on seeding and herbaceous invasive management will occur both this year and next, and woody follow-up will continue in subsequent years.

Dissemination

FMR has written about the projects in both Activity 1 and 2 in our Mississippi Messages newsletter (Bruce Vento Nature Sanctuary; Applewood and Carver Preserves) and our Annual Report (Applewood and Carver Preserves). In each case, we acknowledge the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources as the funder of this work.

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