

Final Abstract

Final Report Approved on December 3, 2024

M.L. 2020 Project Abstract

For the Period Ending June 30, 2024

Project Title: Pollinator Central: Habitat Improvement with Citizen Monitoring

Project Manager: Rebecca Tucker

Affiliation: Great River Greening

Mailing Address: 251 Starkey St. Suite 2200

City/State/Zip: Saint Paul, MN 55107

Phone: (651) 272-3982

E-mail: rtucker@greatrivergreening.org

Website: <https://www.greatrivergreening.org/>

Funding Source:

Fiscal Year:

Legal Citation: M.L. 2021, First Special Session, Chp. 6, Art. 5, Sec. 2, Subd. 08a

Appropriation Amount: \$750,000

Amount Spent: \$749,513

Amount Remaining: \$487

Sound bite of Project Outcomes and Results

Pollinator Central: Habitat Improvement with Citizen Monitoring established native habitat on 408 acres at 15 project sites and directly engaged 575 volunteers and 224 citizen scientists, enhancing the natural environment of both urban and rural areas as well as connecting people with plants, pollinators, and their local communities.

Overall Project Outcome and Results

Great River Greening staff worked with enthusiastic local landowners to create native plant habitats supporting native wildlife, specifically pollinators, and to provide free and available outdoor areas for education, engagement, and enjoyment for the local community in these accessible ecosystems. GRG also supported conservation stewardship and community science in the form of observational monitoring to record how the habitat restoration projects impacted pollinator communities over time.

These unique 15 projects met or exceeded goals, with a total of 408 acres restored or enhanced (original milestones = 17 sites, 406 acres), engaging a total of 575 habitat volunteers in active restoration activities such as native planting, seeding, or invasive shrub removal (goal = 400) and 224 community scientists in pollinator monitoring and related

educational events (goal = 100). Urban projects were smaller than rural ones, but consistently saw more community involvement in the habitat work (large volunteer events with a lot of interest in pollinator monitoring), and even small pockets of pollinator habitat serve as corridors and connecting points to bigger areas. The large acre projects outside the Metro supported unique plant species enhancement such as native prairie violets that are required by the rare regal fritillary butterfly for survival.

The pollinator education and monitoring efforts facilitated dozens of multi-site and virtual pollinator identification trainings directly leading to 185, 3-Category independent monitoring contributions on 8 sites (5,986 native bees observed) and 9 bumble bee counting events on one site with 835 native bumble bees of 8 species observed through 2024, summarized in the multiple reports attached from the University of Minnesota Bee Lab and Xerces Society partners. This information will be used to continue steward the habitat projects as well as provide context for the positive impact these efforts are having on local wildlife, including the endangered monarch butterfly and rusty-patched bumble bee.

Project Results Use and Dissemination

Communications to the public, contractors, media, and volunteers included the language or ENRTF logo as required, temporary and permanent signs were used to describe habitat work and ENRTF backing. The pollinator monitoring work is described in the attached “Xerces Final Report” and “Ritter RPBB Assessment” prepared by the Xerces Society for Invertebrate Conservation, as well as the University of Minnesota Bee Lab yearly Ritter Farm Bumble Bee Summaries (2022 and 2023). Greening staff also presented at the Society for Ecological Restoration conference in 2023 and is continuing this dissemination of monitoring results to event participants and landowning partners into 2024.



Environment and Natural Resources Trust Fund

M.L. 2020 Approved Final Report

General Information

Date: December 11, 2024

ID Number: 2020-050

Staff Lead: Tom Dietrich

Project Title: Pollinator Central: Habitat Improvement with Citizen Monitoring

Project Budget: \$750,000

Project Manager Information

Name: Rebecca Tucker

Organization: Great River Greening

Office Telephone: (651) 272-3982

Email: rtucker@greatrivergreening.org

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

Project Reporting

Final Report Approved: December 3, 2024

Reporting Status: Project Completed

Date of Last Action: December 3, 2024

Project Completion: June 30, 2024

Legal Information

Legal Citation: M.L. 2021, First Special Session, Chp. 6, Art. 5, Sec. 2, Subd. 08a

Appropriation Language: \$750,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Great River Greening to restore and enhance approximately 400 acres of pollinator habitat on traditional and nontraditional sites such as roadsides and turf grass from Hastings to St. Cloud to benefit pollinators and build knowledge by engaging approximately 100 citizens in monitoring the impact of habitat improvements. This appropriation is available until June 30, 2025, by which time the project must be completed and final products delivered.

Appropriation End Date: June 30, 2025

Narrative

Project Summary: Restore / enhance 406 acres of pollinator habitat on 17 traditional and nontraditional sites, from Hastings to St. Cloud, to benefit pollinators and build knowledge of the impacts through citizen monitoring.

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

Current rural and urban corridors are largely undeveloped habitat for pollinators, often with open mowed turf serving as boundaries between pavement and other impermeable surfaces. These patches of vegetation can be opportunities for municipalities, cities, and utilities to develop low-maintenance, high reward ecological areas that benefit both the pollinator community as well as the neighborhoods that these parks, schools, and public spaces serve. In addition to the restoration and establishment of pollinator habitat for imperiled species, there is an opportunity for stewardship, community education, and hands on monitoring in an effort to understand how pollinators interact with these rural and urban spaces.

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.

Following recommendations from the Governor's Committee on Pollinator Protection and other habitat assessment guides, we will restore habitats in urban, suburban, and rural landscapes to support a 'hopscotch' corridor for pollinators, as well as improve core habitat areas. Turf conversion of small, high quality patches will join grassland, edge, wetland, shoreline, and limited amounts of forest and woodland all within flight distance of year-round habitat.

Proposed implementation will follow recommendations provided by the Habitat Assessment Guide for Rusty Patched Bumble Bee (Xerces), the U.S. Fish and Wildlife Service Monarch Conservation Database and other guides, field surveys and expert review. Emphasis will be placed on adjacency within a landscape mosaic to provide forage habitat throughout the year, as determined by using state-of-the-art pollinator habitat 'core and - patches' adjacency mapping analysis. Restoration and enhancement activities will be guided by ecological plans, and implemented by a variety of labor forces including subcontractors, field crews, landowner in-kind, and volunteers.

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?

These improvements will increase floral resources and improve nesting and over-wintering habitat for pollinators, while engaging a total of 400 habitat volunteers in field activities. In addition, we will monitor every site through a number of direct pollinator monitoring techniques, guided by Xerces Society and U of M Bee Lab, to collect useful data on pollinator response to habitat improvements, effectively engaging 100 community scientists in monitoring efforts by requiring reasonable time, skill, and expense, making the approach scalable. A final report will be generated and disseminated that will help guide the implementation in future phases of this program.

Project Location

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

Region(s): Metro, Central,

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

Region(s): Metro, Central,

When will the work impact occur?

During the Project and In the Future

Activities and Milestones

Activity 1: Pollinator Habitat Restoration and Enhancement

Activity Budget: \$634,572

Activity Description:

Habitat restoration and enhancement steps will typically follow: Site selection and ranking; habitat improvement plan including goals timelines, labor forces such as volunteers, landowners, Greening crew, subcontractors and partners, and long-term management; site preparation, installation, establishment; and monitoring throughout.

We will restore pollinator habitat with a focus on SGCN bumble bee species on public and protected private locations through a pollinator corridor following the Mississippi River anchored by Twin Cities and St. Cloud. Following recommendations from the Governor's Committee and others, we will include non-traditional habitat areas, including turf conversions and roadsides in addition to traditional habitat cores. Typical restoration activities will include prairie and savanna restoration; wetland and shoreline restoration and enhancement; judicious use of woodland and forest restoration, restricted in size and to locations that are adjacent to season-long habitat emphasizing forbs, select flowering shrubs and trees, and habitat needs for overwintering and nesting. Restoration and enhancement activities will be implemented guided by ecological plans, and implemented by a variety of labor forces including subcontractors, field crews, landowner in-kind, and volunteers.

Activity Milestones:

Description	Approximate Completion Date
Site selection and management plan completion for 17 sites.	June 30, 2022
Restoration and enhancement completion on 17 sites for a total of 406 acres.	June 30, 2024

Activity 2: Citizen Science Pollinator Monitoring

Activity Budget: \$115,428

Activity Description:

Monitoring will include timed vegetation meanders, and pollinator assessment using guides such as Rusty Patched Bumble Bee Habitat Assessment guide (Xerces Society). Direct pollinator monitoring guided and developed by Xerces Society and U of M Bee Lab will encompass a suite of approaches including citizen science techniques of timed meander counts on 13 sites, with training; non-lethal bumble bee capture with expert identification 3 times per year for 3 years on one site, non-lethal photography with expert identification at 3 sites.

Monitoring will occur pre and post restoration/enhancement to determine the pollinator habitat value of the site and the response to the improvements. This monitoring will potentially take several forms and at escalating levels of rigor: the simplest monitoring will include a timed count of 3 categories of pollinators (honey bees vs. native bees vs. other floral visitors); catch and release surveys of bumble bees with expert identification following MN Native Bee Survey and Midwest Guide to Bumble Bee Monitoring (Xerces Society) methods; and camera 'trapping' using skilled photographers and expert identification using guidelines established by the USFWS for monitoring bumble bee communities and new approaches being developed by Xerces Society and the Bee Lab for other groups

Activity Milestones:

Description	Approximate Completion Date
Pre-restoration baseline surveys for 17 sites.	June 30, 2022

Site specific monitoring plan - 13 (citizen surveys), 3 (photographic surveys), 1 (bumblebee capture surveys).	June 30, 2022
Data collection for all surveys complete, final report on initial findings on all 17 sites.	June 30, 2024

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.

Great River Greening will coordinate multiple volunteer events and widely distribute digital media to showcase individual projects and educate the community on the specific restoration and enhancement work being done. This will include e-news letters, social media, and online articles written with partners on their websites, describing the activities as well as the benefits these activities have to the natural environment and the surrounding communities.

We will also document the method and results of the pollinator insect monitoring on these restoration sites. The collected data will be given to the site partners individually and collectively, as well as disseminated in the form of written summaries and presentations and talks to the site owners and general conservation community. This will allow other restoration practitioners as well as the general public to use the knowledge gained on successful pollinator habitat improvement techniques on projects of their own in the future.

The Environmental and Natural Resource Trust Fund will be acknowledged in all dissemination, as well as with on site signage as required by the associated guidelines.

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?

This is the first phase of the Pollinator Central program as funded by the LCCMR appropriations (pending legislation as this application is being submitted), and owing to the volume of interest we have received each time we have released RFPs to land-owning partners, we anticipate that there will be critical need and opportunity for future multiple phases in this Pollinator Central corridor. These projects are well matched by cash and in-kind funding from landowners and other sources, and the landowners will commit to long term maintenance of the restoration sites. The restoration monitoring information will be disseminated with grant assistance.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Upland and Shoreline Restoration in Greater Metropolitan Area	M.L. 2014, Chp. 226, Sec. 2, Subd. 06g	\$300,000
Metro Conservation Corridors Phase VIII - Enhancing Restoration Techniques for Improved Climate Resilience and Pollinator Conservation	M.L. 2015, Chp. 76, Sec. 2, Subd. 08f	\$400,000
Upland, Wetland, and Shoreline Restoration in Greater Metropolitan Area	M.L. 2016, Chp. 186, Sec. 2, Subd. 08g	\$509,000
Community Stewardship to Restore Urban Natural Resources - Phase Ten	M.L. 2017, Chp. 96, Sec. 2, Subd. 08i	\$524,000

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount	\$ Amount Spent	\$ Amount Remaining
Personnel										
Ecologist		Oversees Project Management			17%	0.93		\$75,000	-	-
Field Technician		Conducts on-site work to support project deliverables			32%	0.27		\$10,000	-	-
Volunteer Outreach Mgr		Manages all tasks related to volunteer acquisition, event development and event execution			17%	0.39		\$15,000	-	-
Grant Administrator		Tracks grant and project budget compliance, develops status reports and amendments, processes reimbursement requests			25%	0.18		\$12,000	-	-
							Sub Total	\$112,000	\$111,999	\$1
Contracts and Services										
U of M Bee Lab	Subaward	The U of M Bee Lab will identify bumble bee species from photographs at 750-1,000 specimens per 40 hours, including data management and analysis. Time and materials basis. Single-source provider selected due to the unique and expert set of skills required for these tasks.				0.54		\$40,000	\$40,000	-
Xerces Society	Subaward	The Xerces Society will lead nine public bumble bee monitoring events, three citizen and GRG staff training workshops, and provide expert support for monitoring efforts. Single-source provider selected due to the unique and expert set of skills required for these tasks.				0.54		\$40,000	\$40,000	-
Restoration and Enhancement sub-contracts	Professional or Technical Service Contract	Restoration and Enhancement sub-contracts following state competitive RFP requirements to support work such as: site				1.35		\$422,521	\$422,061	\$460

following state competitive RFP requirements		preparation, prairie seeding, invasive species control, woody harvest, thinning, forestry mowing, herbicide treatment, prescribed fire, haying.								
							Sub Total	\$502,521	\$502,061	\$460
Equipment, Tools, and Supplies										
	Tools and Supplies	Seeds, plugs, herbicide, tools for R/E activities conducted by Greening crew, volunteers, landowners	Supplies required to support activity 1 restoration/enhancement deliverables					\$122,127	\$122,127	-
	Tools and Supplies	Sampling materials	Supplies required to support activity 2 monitoring					\$2,987	\$2,987	-
							Sub Total	\$125,114	\$125,114	-
Capital Expenditures										
							Sub Total	-	-	-
Acquisitions and Stewardship										
							Sub Total	-	-	-
Travel In Minnesota										
	Miles/ Meals/ Lodging	Activity 1 Truck and POV mileage; occasional overnight lodging and LCCMR allowable expenses for field work	Support site visits as to accomplish deliverables					\$5,000	\$4,990	\$10
	Miles/ Meals/ Lodging	Activity 2 Monitoring Related Travel	Support site visits as to accomplish deliverables					\$1,013	\$1,012	\$1
							Sub Total	\$6,013	\$6,002	\$11
Travel Outside Minnesota										

							Sub Total	-	-	-
Printing and Publication										
	Printing	Activity 2 Printing	Promotional material for volunteer acquisition, signage for event site instructions and logistics					\$2,000	\$2,000	-
							Sub Total	\$2,000	\$2,000	-
Other Expenses										
		Volunteer event related expenses	Tent, table, chairs, food, latrine, etc., as required to support project volunteer event deliverables and the promotion of LCCMR strategy and objectives to citizen volunteers.					\$2,352	\$2,337	\$15
							Sub Total	\$2,352	\$2,337	\$15
							Grand Total	\$750,000	\$749,513	\$487

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	\$ Amount Spent	\$ Amount Remaining
State						
			State Sub Total	-	-	-
Non-State						
In-Kind	Landowner	R/E activities e.g. site prep, seeding, invasive control, hauling	Secured	\$12,530	\$12,530	-
Cash	Landowner	Funding toward restoration and enhancemnt goal	Secured	\$162,083	\$162,083	-
Cash	National Fish and Wildlife Foundation Monarch Butterfly and Pollinators Conservation Fund 2020.	Increase deliverables	Secured	\$34,638	\$34,638	-
Cash	Volunteer Labor	Events including R/E activities, pollinator monitoring, and volunteer consultations	Secured	\$49,182	\$49,182	-
Cash	Corporate Donations	Funding toward restoration and enhancemnt goal supporting private events at project sites	Secured	\$16,225	\$16,225	-
Cash	GRG	GRG overhead costs covered by general operating support	Secured	\$70,700	\$70,700	-
			Non State Sub Total	\$345,358	\$345,358	-
			Funds Total	\$345,358	\$345,358	-

Acquisition and Restoration

Parcel List

Name	County	Site Significance	Activity	Acres	Miles	Estimated Cost	Type of Landowner	Easement or Title Holder	Status of Work
Clear Lake Twsp Park	Sherburne	high prairie and savanna potential site, in river corridor	Restoration	3	-	\$9,100	Public		Completed
Clearview Elementary School Forest	Sherburne	high quality prairie remnant stressed by red cedar encroachment	Restoration	18	-	\$62,800	Public		Completed
Commons Park	Hennepin	lake shoreline with woodland habitat	Restoration	3	-	\$15,500	Public		Completed
Crow Lake Twsp BSWR RIM Easement	Stearns	59 ac grassland, wetland mosaic in ag landscape	Restoration	0	-	-	Private	BWSR RIM Easement	No Longer Being Considered
Dakota Trail	Hennepin	recent 3RPD acquisition; adjacent to current trail site	Restoration	0	-	-	Public		No Longer Being Considered
Fish Creek	Ramsey	Native oak planting at a 70 acre public nature preserve	Restoration	7	-	\$9,400	Public		Completed
Heritage Park	Sherburne	Forest and prairie habitat adjacent to urban housing	Restoration	26	-	\$71,300	Public		Completed
Hidden Falls / Crosby Farm / Meeker Dam	Ramsey	forest, woodland, savanna, prairie, shoreline, wetland mosaic in river corridor	Restoration	10	-	\$45,000	Public		Completed
Hidden Valley Park	Scott	high quality dry prairie remnant with rare species	Restoration	5	-	\$14,400	Public		Completed
Inspiration Easement	Washington	restored prairie in river corridor	Restoration	25	-	\$47,500	Public		Completed
Liberty Glen Park: Phase I	Sherburne	part of large habitat complex in river valley	Restoration	0	-	-	Public		No Longer Being Considered
Maplewood City Hall	Ramsey	high visitation site with mosaic of wetland, shoreline, turf, prairie, savanna	Restoration	8	-	\$32,300	Public		Completed
Mississippi River Bluff	Hennepin	two sites along river bluff; future trail site	Restoration	0	-	-	Public		No Longer Being Considered
Ramsey COR	Anoka	linear ROW adjacent to railroad ROW	Restoration	13	-	\$52,500	Public		Completed
Ritter Farm Park	Dakota	varied habitat with woodland edge	Restoration	17	-	\$47,400	Public		Completed
Sedan Brook SNA	Stearns	habitat core for wet prairie, woodland, riparian	Restoration	0	-	-	Public		No Longer Being Considered

Spring Lake Park Reserve: Phase I	Dakota	large habitat core with mosaic	Restoration	216	-	\$64,900	Public		Completed
St. Louis Park: Oak Hill / Louisiana Oaks	Hennepin	high visitation site, woodland and edge habitat	Restoration	8	-	\$16,000	Public		Completed
State Highway ROW	Sherburne	State Highway 24 linear corridor habitat	Restoration	0	-	-	Public		No Longer Being Considered
Sucker Lake/Lake Vadnais	Ramsey	aquatic, shoreline and wetland habitat complex	Restoration	0	-	-	Public		No Longer Being Considered
Westwood Hills Nature Center IV	Hennepin	highly visited large habitat core with mosaic of wetland, lake, shoreline, prairie, savanna, woodland, forest.	Restoration	15	-	\$40,800	Public		Completed
Woodbury Basins: Phase I	Washington	highly visible sites in development cores with corridor habitat	Restoration	34	-	\$103,200	Public		Completed
Totals				408	0	\$632,100			

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.

All restoration activities completed with these funds will occur on land permanently protected by a conservation easement or public ownership.

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.

Restoration plans include target community, timelines, methods, budgets and long term maintenance. These plans are filed electronically by unique project numbers and can be referenced by staff or landowner as required by the needs of the site.

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.

All plans will follow the most recent version Board of Soil and Water Resources “Native Vegetation Establishment and Enhancement Guidelines” in order to ensure ecological integrity and pollinator enhancement.

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.

Long-term maintenance and management needs of the parcel being restored with these funds become the responsibility of the landowner. Greening seeks to assist when possible.

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

Great River Greening contacts the Conservation Corps of Minnesota once the grant is secured to seek their interest for any restoration activities.

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.

Evaluations will be completed during the process including initially after activity completion and three years later as a follow-up. Evaluations will 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.

Attachments

Required Attachments

Map

File: [4d91cbe5-2e0.pdf](#)

Alternate Text for Map

Great River Greening map of completed project sites on a Minnesota county map....

Financial Capacity

File: [a43fd339-f7b.pdf](#)

Board Resolution or Letter

Title	File
3G. GRG Board Letter of Authorization Final	e0566f70-bdb.pdf

Supplemental Attachments

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

Title	File
2021-07-06_ENRTF Background Check Certification Form FINAL_GreatRiverGreening	9b077349-8da.pdf
GRG PC1 and 2 Pollinator Monitoring Summary	38fffcac-340.pdf
Pollinator Stewardship Presentation (SER Conference 2023)	4a8050ee-bbe.pdf
2022 Ritter Farm Bumble Bee Summary	62517a70-426.pdf
2023 Ritter Farm Bumble Bee Summary	4ab76428-bec.pdf
Xerxes Final Report	a7415def-c60.pdf
Xerxes Final Report Appendices	77307ad5-b18.pdf
2023 GRG Report Detailed Addendum	dd50d0e7-c15.pdf
Inspiration Sign 1	6d6f7ed6-6a0.jpe
Inspiration Sign 2	9651587c-220.jpe
Maplewood Sign 1	923fe57b-b05.jpe
Maplewood Sign 2	24da3f5c-948.jpe
Ritter Sign 1	f48ddfaa-4eb.jpe
Ritter Sign 2	31d93f54-06b.jpe
Ritter Sign 3	c073d559-0bb.jpe
Oak Hill Sign	2f78623d-ec9.jpe
Westwood Sign	15435812-349.jpe
Hidden Falls Sign	30f342bc-1b9.jpe
Clear Lake Sign	b3e2bb4b-1ea.jpe
Clearview Sign	b4361c10-b5e.jpe
Commons Sign	7d01fedd-27f.jpe
PC1 Final Project Sites Map	99fcaa73-c80.jpe
Ritter RPBB Assessment	f2c3429e-857.pdf

Media Links

Title	Link
Mill City Times Article	http://millcitytimes.com/news/pollinator-protection-plans-a-discussion-with-becca-tucker-p.html
Great River Greening Pollinator Landing Page	https://www.greatrivergreening.org/pollinator
Prairie Violets Foster Return of Uncommon Butterfly	https://extension.umn.edu/news/prairie-violets-foster-return-uncommon-butterfly

Difference between Proposal and Work Plan

Describe changes from Proposal to Work Plan Stage

The University of Minnesota and Xerces Society budgets were updated to "Sub Awards". The date of the allocation changed to June 2024 (it may have been entered as 2025 when this was a ML2022 proposal), and all associated milestones for the Activity 1 and 2 accomplishments adjusted accordingly. The easement holder for the Crow Lake Twmsp BWSR RIM easement was entered. The reporting schedule was requested to be Feb 1 / Aug 1. Three projects were removed that are no longer proceeding through this grant funding, and all associated acreage and budgets were updated accordingly. The "Travel in Minnesota" budget was split between Activity 1 and 2 for clarity (total did not change). Funds were added to the Printing budget, and it was clarified that it is Activity 2, the Activity 2 budget total was then updated.

(RCT, July 21, 2021) - Attached the completed ENRTF Background Check Certification Form to 7. Attachments, and returned the Timeline end date back to 2025 on 4. Narrative.

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 understand that travel expenses are only approved if they 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 - Professional / Technical Contracts • Budget - Capital, Equipment, Tools, and Supplies • Acquisition and Restoration - Parcel List 	State Hwy parcel is no longer moving forward. Funds have been redistributed largely to Ramsey COR with a corresponding increase in acreage to that project. GRG also requests a reduction of \$6,120 in its Tools and Supplies Activity 1 budget and an increase in the Restoration and Enhancement Subcontracting budget of \$6,120 to accommodate anticipated contracting.	September 21, 2022	Yes	September 22, 2022
2	Amendment Request	<ul style="list-style-type: none"> • Budget • Budget - Professional / Technical Contracts • Budget - Capital, Equipment, Tools, and Supplies • Budget - Travel and Conferences • Budget - Printing and Publication • Budget - Other • Attachments • Acquisition and Restoration - Parcel List 	GRG requests to move \$12,200 from the supply budget to contracting to support the planned work through contracted vendors as opposed to through supply purchases. The estimated cost on four parcels has been updated to reflect the most up to date cost.	August 2, 2023	Yes	August 3, 2023
3	Amendment Request	<ul style="list-style-type: none"> • Budget • Other • Activities and Milestones • Budget - Professional / Technical Contracts • Budget - Capital, Equipment, Tools, and Supplies • Budget - Travel and Conferences • Budget - Other 	GRG requests an adjustment to our activity budgets to account for some labor funds shifting from activity 2 to activity 1 to accommodate project specific work. As the originally projected contracting budget for multiple tasks was less than the quotes provided, GRG also requests moving \$6,555 from contracts to supplies for GRG to directly purchase additional plant materials and seeds for installation at project sites in non-contracted, volunteer planting work.	January 23, 2024	Yes	January 24, 2024

4	Completion Date	Previous Completion Date: 06/30/2025 New Completion Date: 06/30/2024	To align with with the state contract end date of 6/30/2024. GRG has been carrying out grant activities with 6/30/2024 as the end date on its activity timeline. GRG is on track to complete all project work by the new completion date of 6/30/2024.	January 12, 2024	Yes	January 22, 2024
5	Amendment Request	<ul style="list-style-type: none"> • Budget - Professional / Technical Contracts • Budget - Capital, Equipment, Tools, and Supplies • Budget - Travel and Conferences • Budget - Other 	As GRG is no longer utilizing the "Volunteer supply" budget as originally planned due to fewer large events that required food or tent rentals, we propose to shift those remaining \$4,588 funds out of the "Other" category and into the main "Supply" category for spending. In addition, GRG requests some smaller administrative shifts to get budgets in line for the end of grant approaching 6/30/24.	April 29, 2024	Yes	May 9, 2024
6	Amendment Request	<ul style="list-style-type: none"> • Budget - Professional / Technical Contracts • Budget - Capital, Equipment, Tools, and Supplies • Budget - Travel and Conferences • Budget - Printing and Publication • Budget - Other • Budget - Non-ENRTF Funds Contributed • Attachments • Acquisition and Restoration - Parcel List 	Final budget spent numbers have been entered with this final status update report as well as our final secured Non-ENRTF Funds Contributed amounts. In addition, acreage and cost have been updated on the parcel list to reflect the final state of each individual parcel upon completion of the grant.	August 14, 2024	Yes	September 17, 2024

Status Update Reporting

Final Status Update August 14, 2024

Date Submitted: September 13, 2024

Date Approved: September 17, 2024

Overall Update

GRG completed work on all active projects, providing documentation and recommendations on continued maintenance of the work as we handed long-term site management back over to the landowners. This spring was significantly wetter with more “typical” weather patterns compared to the prior years of drought, adding to the success of native vegetation establishment. Contracted habitat work was completed at Hidden Falls / Crosby Farm, Maplewood City Hall, Ramsey COR, Fish Creek, and Heritage Park, including final mowings or spot treatments of establishing prairie areas, plug planting or seeding to add species diversity, tree planting and protection installation, and prescribed burns for thatch removal and native growth promotion. In this reporting period, 4 habitat restoration volunteer events occurred at 4 project sites engaging 195 volunteers (Activity1), and pollinator monitoring outreach and independent monitoring engaged an additional 36 community scientists (Activity2). Finally, the Xerces Society submitted a bumble bee monitoring final report and completed the “Rusty Patched Bumble Bee Habitat Assessment Form and Guide” for Spring Lake Regional Park to document the state of the project area and serve as a model for future habitat work facilitated by Greening and our project partners. Final cumulative individuals engaged: Habitat Volunteers – 575, Citizen Scientists – 224.

Activity 1

Work concluded on the approved 15 sites on a total of 408 acres (all grant changes to reduce from the original 17 projects were completed with approved amendments). During this period, 5 additional acres of seed were sown at Inspiration HOA to continue native habitat development on that site, Ramsey COR received native seeding and erosion control blanketing on the basin and sediment pond shoreline areas, woodland and prairie areas were seeded with additional mixes at Ritter Farm Park, 16 additional acres received buckthorn removal and prairie maintenance at Spring Lake Park Reserve, prairie seed was sown and contracted buckthorn removal completed on the final reduced acreage of Heritage Park, and Conservation Corps of Minnesota and Iowa (as coordinated by the Mississippi Park Connection) assisted with the contracted prescribed burn and planting of 110 bur oak trees at Fish Creek Natural Area adding 4 acres as that project completed. Volunteers planted trees, shrubs, and understory plants at the Westwood Hills Nature Center and removed buckthorn at Oak Hills Park, and they also planted native blooming species into bee lawn areas at Hidden Falls and Crosby Farm Regional Parks.

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

Activity 2

Pollinator monitoring training for independent volunteers occurred at Crosby Farm and Ritter Farm Parks, with 36 volunteers participating in the trainings on June 13th, June 18th, and June 20th. Those volunteers began the independent monitoring season later in the growing season than this reporting period, as pollinators are more after June of the year. Interest continued to be shown by the public in learning about the use of iNaturalist, the 3-Category survey technique, and the capture / ID / release events that will be continued through funding on Pollinator Central 3 and Pollinator Central 4. Final data and bumble bee capturing reports from the previous seasons at Ritter Farm Park was provided by the Xerces Society and the University of Minnesota Bee Lab, as well as the Rusty-Patched Habitat Assessment completed by the Xerces Society regarding Ritter Farm Park. Great River Greening is working to build a concise summary of all submitted reports and data collection to disseminate to partners and interested public. The Xerces and Bee Lab reports summarize recommended monitoring for all sites as well as data from the individual site

bumble bee monitoring,

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

Dissemination

Community engagement during this period included work on multiple sites and educational dissemination of project-related communications. 27 volunteers continued buckthorn removal and native seeding at Oak Hill Park on April 22nd, 38 volunteers from The Nature Conservancy through the coordination of Room and Board planted 42 trees and shrubs, 330 plugs, and seeded 9 lbs of seed at Westwood Hills Nature Center on May 15th, 113 volunteers planted 6,000 plugs of pollinator-supporting virginia waterleaf and wild strawberries at Hidden Falls Regional Park on June 1st and 17 volunteers from Eco Lab planted over 2,000 at Crosby Farm Regional Park on June 12th. All Pollinator Central efforts were discussed in an oral presentation at each event, highlighting the monitoring and community science efforts, with ENRTF properly credited for funding. Social media posts mentioned PC1 with ENRTF credited 5 times during this period, highlighting volunteer events and overall habitat restoration and stewardship efforts in general as well as Oak Hill Park, Westwood Hills Nature Center, and Crosby and Hidden Falls Regional Parks that were supported by this grant during this period.

Status Update Reporting

Status Update February 1, 2024

Date Submitted: January 16, 2024

Date Approved: January 24, 2024

Overall Update

Progress continued on all projects, including some nearing completion (Clear Lake Township Park, Ritter Farm Park, and St. Louis Park: Oak Hill / Louisiana Oaks) and both Activities 1 and 2 are on track for completion by the end of June, 2024. Most projects received second or third season follow up facilitating management on the work facilitated in previous periods, including invasive species management on now only resprouting or small germinating populations after initial removal, and maintenance on plantings to encourage establishment such as mowing or spot weeding prairie plantings. In this reporting period, 6 habitat restoration volunteer events occurred on 5 projects, totaling 129 volunteers engaged for this (Activity 1), pollinator monitoring outreach and engagement made significant progress with 43 community scientists participating in the 3 bumble bee monitoring events at Ritter Farm, and 25 total independent pollinator monitor sampling events contributing to site stewardship on 5 projects (Activity 2). This increased focus on types of community engagement that is structure and guided (multiple trainings occurred in both spring and fall 2023 with an easy to complete web form for data submission) while also being flexible and allowing for independent participation was very well received by the volunteers.

Activity 1

Summer, fall, and winter contracted as well as Great River Greening led restoration and enhancement actions continued on all active projects, with new RFP or subcontractor award cycles occurring on Spring Lake Park Reserve, Maplewood City Hall, Hidden Falls / Crosby Farm, Hidden Valley Park, Woodbury Basins: Phase I, and Ramsey COR projects. Maintenance and establishment activities were carried out on established contracts, with growing season site visits conducted on all projects to document work progress, facilitate any adjustments required to ongoing work, and prepare for the final six months and last growing season work in 2024. Buckthorn removal follow up work concluded at Oak Hills / Louisiana Oaks Park and Westwood Hills Nature Center, allowing for native plant establishment at Westwood Hills during this current phase, and ENRTF funded native establishment in Phase II at Oak Hills / Louisiana Oaks. Both parks received trees and understory shrubs donated by the City of St. Louis Park grown in their gravel bed nurseries and planted by private volunteer groups, advancing the transition from invasive to native understory habitats in 2023.

Activity 2

Bumble bee capture / ID / release pollinator monitoring volunteer events hosted by the Xerces Society and the University of Minnesota Bee Lab with Great River Greening staff were held on July 7th, August 4th, and August 17th, with a total of 43 community science volunteers. Two in-person trainings for independent pollinator monitoring were held by Greening staff in July with a total of 19 volunteers in attendance, which adds to additional trainings held in June and on Pollinator Central 2 funding (GRANT CODE HERE) which did contribute to the whole pool of volunteers monitoring sites funded by both grants. On Pollinator Central 1 projects during this period, 25 individual monitoring events contributed a collective 120 hours of site monitoring on 5 sites. Initial data analysis and summary has been started by Great River Greening, the Xerces Society, and the UM Bee Lab, on the bumble bee data, independent monitoring, and iNaturalist observations. This will be given to landowning partners and disseminated publicly in 2024 to serve as the main reference point for how populations have changed over time after habitat restoration or enhancement when these pollinator monitoring methods are done again on these sites in the future.

Dissemination

Volunteer habitat restoration events were held at Maplewood City Hall (Sep. 18th and Oct 19th, 31 volunteers total), Ramsey COR (Sep. 18th, 11 volunteers), Oak Hills (Sep. 19th, 21 volunteers), Spring Lake Park Reserve (Sep. 20th, 11

volunteers), and Westwood Hills Nature Center (Oct. 9th, 55 volunteers), totaling 129 restoration volunteers for the period. A gathering was held at the University of Minnesota Bee Lab on October 18th for independent pollinator monitoring volunteers, serving as a continued educational opportunity as well as a thank you for their efforts, with 10 people in attendance and 30 thanked virtually, where a summary presentation from the years observations was made by Great River Greening, Xerces Society, and the Bee Lab staff. The Spring Lake Park Reserve project was highlighted in a Great River Greening blog post www.greatrivergreening.org/blog/violets-butterflies-and-bison published on October 24th and shared by Great River Greening accounts on social media platforms on October 30th. 7 separate ENRTF credited social media posts highlighted work at Spring Lake Park Reserve, Ritter Farm Park, Maplewood City Hall (which included a video produced by the City of Maplewood Parks and Natural Resources on September 22nd), Ramsey COR, and Oak Hill Park.

Status Update Reporting

Status Update August 1, 2023

Date Submitted: August 2, 2023

Date Approved: August 3, 2023

Overall Update

Restoration and monitoring activities continued across the projects supported by these funds. Projects that did not have active restoration on site during this period continued to have active communication and planning with the landowners (Activity 1), and the coordination for the 2023 pollinator monitoring season for each of the three proposed types of techniques progressed well with the University of Minnesota Bee Lab, Xerces Society, and recruitment for public community scientists on all levels (Activity 2).

Activity 1

Winter restoration and enhancement work started or continued on a number of projects involving buckthorn or woody invasive/undesired tree removal, including the RFP development for fall 2023 work on the Woodbury Basins and Hidden Valley Park, and active habitat work at Commons Park and Clearview Elementary, which featured the conclusion of the select removal of trees and shrubs to enhance the grassland habitat and spreading of common milkweed seed procured with matching funds and spread by a teacher. This project is complete on the full 18 acres. Spring planting and seeding occurred both through contracted and volunteer efforts at Clear Lake Township Park, Maplewood City Hall, and Spring Lake Park Reserve, which continued the effort of volunteer growing and planting of native violet species at the Dakota County greenhouse in Eagan for planting in the bison paddocks to prepare the site for the future release of the threatened Dakota Skipper butterfly.

Activity 2

Monitoring planning and volunteer recruitment for the 2023 season occurred during this reporting period. Efforts were made to recruit and train community scientists on the “3-category” survey as well as the use of iNaturalist at project sites throughout the range of work. Group training sessions were hosted by Greening staff for specific sites to orient the volunteers to both the monitoring effort as well as the public spaces themselves, and a group training was hosted by the Xerces Society for Greening staff, project partners, and volunteers on June 22nd with a total of 19 people in attendance. iNaturalist and 3-category monitoring efforts are already underway by these community scientists, with an easier to use data collection Google form proving a more streamlined way for public engagement on the 3-category sampling technique. Public volunteers are now independently conducting 3-category and iNaturalist surveys at Crosby Farm Park, Hidden Falls Park, Inspiration Easement, Maplewood City Hall, Ritter Farm Park, Spring Lake Park Reserve, and Westwood Hills Nature Center.

Dissemination

Social media posts, with the ENRTF funding prominently noted, were written and disseminated on the Spring Lake Park Reserve, Ritter Farm Park, and Activity 2 monitoring overall, with articles written by the University of Minnesota Extension highlighting the Spring Lake Regional Park violet propagation work, written by Patriot News on the Clear Lake Township project, and written by the Mill City Times highlighting the broader pollinator habitat and community engagement work supported by the ENRTF funds. We also continued the use of logoed corrugated plastic signs at active restoration and pollinator monitoring areas to inform trail and park users of the background of the projects, with QR codes to information on the Greening website including a dedicated landing page. Thank you emails also accompanied all volunteer events to again cite the ENRTF funding on these projects. Greening staff also attended the Society for Ecological Restoration Midwest-Great Lakes chapter conference in Baraboo, WI, in April 2023 and all Pollinator Central efforts were discussed in an oral presentation, highlighting the monitoring and community science efforts, with ENRTF properly credited for funding.

Status Update Reporting

Status Update February 1, 2023

Date Submitted: January 27, 2023

Date Approved: February 9, 2023

Overall Update

All aspects of the grant are fully in motion, on all projects that will be supported by these funds. Site preparation for habitat restoration / enhancement (such as buckthorn removal for understory native species development or turf replacement for pollinator habitat creation) has been started or contracted across the full set of projects. Volunteer engagement has happened both tangibly and through outreach in most of the communities, with numbers on track to exceed goals for both Activity 1 and Activity 2 participation. We're having success with some of the pollinator monitoring methods, and learning from others, all of which will go into how we recruit participation for the 2023 season, and a final summary to inform future phases or partners that may want to perform similar pollinator monitoring projects. There was also unique partner participation in documenting and showcasing the restoration work at both the City of Maplewood and Ritter Farm Park projects, with local news stories and YouTube videos produced from these efforts.

Activity 1

All active projects have progressed through cooperative agreement full execution and are currently in progress on restoration activities on over 320 acres. The State Highway ROW project was officially removed from consideration, and the funds were redistributed to other projects within the grant. Fall planting of diverse, native grasses, forbs, shrubs, and trees occurred at Clearview Elementary, Commons Park, Fish Creek, Maplewood City Hall, Ramsey COR, Ritter Farm Park, Spring Lake Park Reserve, and Westwood Hills Phase 4 through contracted seeding as well as publicly engaging volunteer events, with over 75 volunteers participating in hands-on planting events.

Activity 2

Pollinator sampling continued on sites that had been started in Spring 2022 on all levels of monitoring types. Volunteers participated in Xerces Society / UMN Bee Lab led bumble bee catch, ID and release events on July 7th, August 9th, and August 24th at the Ritter Farm Park in Lakeville. There was great interest in these events, with a total of 76 volunteers participating, including multiple repeat groups from the "Lakeville Friends of the Environment" and a Girl Scout troop, all with varying ages and levels of expertise, observing a total of 207 bumble bees of 8 different species, including 5 individuals of the state endangered *Bombus affinis* seen at Ritter Farm Park during the August 9th capture / ID / release event. Less interest was shown by the public, despite recruitment attempts, in both the 3-Category and guided iNaturalist photo monitoring on these sites, with the data from the full 2022 monitoring year to be analyzed this winter.

Dissemination

Social media posts, with the ENRTF funding prominently noted, were written and disseminated on the Maplewood City Hall, Spring Lake Regional Park, Inspiration, Excelsior, Ritter Farm Park, Clear Lake, Westwood Hills, and pollinator monitoring projects several times this reporting period by both Great River Greening and our landowning partners. Signs were developed for placement on sites explaining the types of work going on in that area, ie "Prairie Restoration in Progress" and "Forest Restoration in Progress", again with the ENRTF logo and links to our website for more project and grant related information. The City of Lakeville created multiple YouTube videos showcasing the variety of work being done on that site, including forestry mowing, prescribed burning, and pollinator monitoring during this reporting period. The City of Maplewood project was also highlighted on broadcast news by WCCO on the evening of August 2nd and the morning of August 3rd (as well as on their website) celebrating the native habitat establishment around the lake next to the City Hall.

Status Update Reporting

Status Update August 1, 2022

Date Submitted: July 26, 2022

Date Approved: August 15, 2022

Overall Update

Pollinator resource development, native habitat restoration, and interactive volunteerism / education has seen significant progress through the Pollinator Central I grant during this period. Projects have either been fully made online through cooperative agreements with the landowners or are actively in progress for that step. Sites including Clear Lake Township Park, Clearview Elementary, Excelsior Commons, Hidden / Crosby / Meeker, Inspiration, Maplewood City Hall, Ritter Farm, Oak Hill – Louisiana Oaks, and Westwood Hills Nature Center projects have seen contracted or volunteer habitat work totaling 85 active acres in this 2022 reporting period. The Spring Lake Park Reserve project saw a significant amount of volunteer and staff labor in finding, monitoring, and harvesting fully developed prairie violet seeds (with permission from landowners) on WMAs and other prairies, collecting an estimated 40,000 seeds, unprecedented numbers compared to previous years' efforts due to organized volunteer efforts and well-timed monitoring. Volunteers have been engaged in both the restoration activities as well as the pollinator monitoring efforts, agreements are in place with the Xerces Society and the University of Minnesota Bee Lab, with more engagement and monitoring planned for Summer and Fall 2022. Contracting numbers included in this update include encumbered and fully executed agreements.

Activity 1

Cooperative agreements with the applicable landowners for the following projects have been completed: Clear Lake Township Park, Clearview Elementary, Commons Park, Hidden Falls / Crosby / Meeker Dam, Hidden Valley Park, Inspiration Easement, Maplewood City Hall, Oak Hill – Louisiana Park, Ritter Farm, Spring Lake Park, Westwood Hills Phase 4, and Woodbury Phase I. The St. Cloud project previously assigned to Liberty Glen Park has been replaced by Heritage Park, the Fish Creek project has been added, the Crow Lake and Sedan Brook projects have been removed, and the associated finance adjustments have been made through the finalized Amendment 1 in March 2022. Discussions continue with the landowners for the Ramsey COR project, and the State Highway project is on hold. Active restoration has begun on more than half of the projects, with RFPs being developed to be released in fall 2022 for the remaining projects.

Activity 2

The Xerces Society and the University of Minnesota Bee Lab coordinated and held multiple pollinator monitoring trainings for internal staff, interested partners, volunteer supervisors, as well as for the general public (with the assistance of NFWF funding) including an online training, with in-field hands-on portions, led by the Xerces Society staff on June 15, 2022. Protocols for all monitoring types have been designed, field tested, and initiated. Plans for summer pollinator monitoring were made for the public bumble bee capture, ID, and release sampling events at Ritter Farm Park in Lakeville (which started in July) and for the other two types of monitoring (the 3-Category and iNaturalist photo monitoring) at 13 and 3 sites respectively. All sites were monitored for baseline vegetation composition or are actively being surveyed during the summer months by Greening staff to record the sites prior to major restoration, with surveys of first year pollinator composition to be completed throughout the growing and insect active season in 2022.

Dissemination

Volunteer events were held on Pollinator Central I projects during this period including Excelsior Commons, Westwood Hills Nature Center in St. Louis Park, and Hidden Falls Park in St. Paul, totaling 166 volunteers. Virtual webinars and informational meetings were also held regarding these restoration projects and the pollinator monitoring activities, with over 50 participants on the live presentations, and additional views from the YouTube posted videos. In-person

pollinator monitoring and iNaturalist observation trainings were held by the University of Minnesota Bee Lab with 15 volunteers, and a staff / partner pollinator training in June by the Xerces Society with an additional 15 in attendance. In collaboration with Dakota County staff, 9 volunteers visited 11 prairies repeatedly throughout this period to collect prairie violet seeds for the Spring Lake Park Reserve project, totaling nearly 150 hours of service. Social media posts (Facebook, Instagram, Twitter) accompanied most of those events, with more than 10 referencing the projects as well as ENRTF funding within this period. In February and again in April, the Star Tribune ran articles discussing the City of Maplewood project to replace turf with prairie plantings and to use goats for buckthorn control.