



Environment and Natural Resources Trust Fund

M.L. 2021 Approved Work Plan

General Information

ID Number: 2021-058

Staff Lead: Corrie Layfield

Date this document submitted to LCCMR: July 21, 2021

Project Title: Pollinator Central II: Habitat Improvement With Community Monitoring

Project Budget: \$631,000

Project Manager Information

Name: Rebecca Tucker

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Project Reporting

Date Work Plan Approved by LCCMR: July 20, 2021

Reporting Schedule: February 1 / August 1 of each year.

Project Completion: June 30, 2024

Final Report Due Date: August 14, 2024

Legal Information

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

Appropriation Language: \$631,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with Great River Greening to restore and enhance pollinator habitat in the metropolitan area to benefit pollinators and people and to build knowledge of the impact through community-based monitoring.

Appropriation End Date: June 30, 2024

Narrative

Project Summary: We will restore and enhance 116 acres of pollinator habitat on 11 sites around the metro to benefit pollinators and people, and build knowledge of the impact through community-based monitoring.

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

Current 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 urban spaces.

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

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 350 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 75 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

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: Pollinator Habitat Restoration and Enhancement

Activity Budget: \$544,000

Activity Description:

Habitat restoration and enhancement steps will typically follow: Site selection and ranking; habitat improvement plan including goals, timelines, plans for 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 Species of Greatest Conservation Need bumble bee species and monarch butterflies on public and protected private locations through a pollinator corridor following the Mississippi River throughout the Twin Cities metro area, contributing to the multi-phase "Pollinator Central" effort extending from Hastings to St. Cloud.

Following recommendations from the Governor’s Committee and others, we will include non-traditional habitat areas, with this phase focusing on turf conversions of trail-sides adjacent to traditional habitat cores. Typical restoration activities will include prairie and savanna restoration; wetland and shoreline restoration and enhancement; judicious use of invasive removal and woodland 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	Completion Date
Site selection and management plan completion for 11 sites.	June 30, 2022
Restoration and enhancement completion on 11 sites for a total of 116 acres.	June 30, 2024

Activity 2: Community Science Pollinator Monitoring

Activity Budget: \$87,000

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 half the sites, with training; non-lethal bumble bee capture with expert identification 7 times over 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	Completion Date
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Pre-restoration baseline surveys for each of the 11 sites.	June 30, 2022
Site specific monitoring plan - 5 (citizen surveys), 3 (photographic surveys), 1 (bumblee capture surveys).	June 30, 2022
Data collection for all surveys complete, final report on initial findings on all 11 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 be funded?

This is the second 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
Personnel								
Grant Administrator		Tracks grant budget, project budgets, develops status reports and amendments			24%	0.36		\$27,700
Accounting Manger		Processes reimbursement requisitions			24%	0.12		\$11,200
Events & Outreach Coordinator		Conducts day to day tasks to support volunteer acquisition and event execution			21%	0.27		\$11,400
Events & Outreach Manager		Manages all tasks related to volunteer acquisition, event development and event execution			21%	0.45		\$24,100
Field Technician		Conducts on-site work to support project deliverables			9%	0.69		\$22,900
Field Crew Coordinator		Oversees day to day activities of Field Technicians			9%	0.45		\$18,700
Program/Project Manager Ecologist		Manages day to day project execution, crew, contractors, project deliverables, budget and timeline.			17%	1.02		\$86,800
Communications Manager		Develop communicaitons for events			21%	0.03		\$1,000
							Sub Total	\$203,800
Contracts and Services								
University of Minnesota Bee Laboratory	Sub award	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. This contract will be executed as part of Activity 2.				0.12		\$23,800
Xerces Society	Sub award	Lead approximately seven 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				0.12		\$33,400

		for these tasks. This contract will be executed as part of Activity 2.						
Restoration and Enhancement sub-contracts following state competitive RFP requirements	Professional or Technical Service Contract	We expect that multiple contracts will be engaged to provide the following types of services: site preparation, turf removal, invasive species control, native species planting, woody harvest / thinning, forestry mowing, herbicide treatment, prescribed fire, haying, and other activities. These contracts will be executed as part of Activity 1.				1.17		\$220,600
							Sub Total	\$277,800
Equipment, Tools, and Supplies								
	Tools and Supplies	Activity 2 Tools & Supplies	Sampling Supplies to support monitoring project deliverables					\$1,500
	Tools and Supplies	Activity 1 Tools & Supplies	Seeds, plugs, herbicide, tools for R/E activities conducted by Greening crew, volunteers, and landowners as needed to satisfy project deliverables					\$112,700
							Sub Total	\$114,200
Capital Expenditures								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
	Miles/ Meals/ Lodging	Support on-site visits as needed to accomplish deliverables. (Activity 1 and Activity 2)						\$5,500
							Sub Total	\$5,500
Travel Outside Minnesota								
	Conference Registration	Activity 2 travel	Dissemination at 2 conferences @ \$500 each including out of state travel.	X				\$1,000

	Miles/ Meals/ Lodging							
							Sub Total	\$1,000
Printing and Publication								
	Printing	Activity 2 Printing	Promotional material for volunteer acquisition, signage for event site instructions and logistics.					\$900
	Printing	Activity 1 Printing	Promotional material for volunteer acquisition, signage for event site instructions and logistics.					\$1,000
							Sub Total	\$1,900
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	X				\$26,800
							Sub Total	\$26,800
							Grand Total	\$631,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
Travel Outside Minnesota	Conference Registration Miles/Meals/Lodging	Activity 2 travel	These conferences are to be determined during the year of presentation, but Society for Ecological Restoration Midwest-Great Lakes Chapter is one example; dissemination of information outside of Minnesota is of regional significance and funding is required to do so.
Other Expenses		Volunteer Event Related Expenses	Volunteer Event Related expenses will support volunteer hours needed to accomplish project deliverables and to provide education to volunteers on the ecological benefits of the project and awareness of LCCMR's commitment and funding to these projects.

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
In-Kind	Outdoor Heritage Fund	Funding from the OHF to be used on the same project sites for restoration and enhancement activities that cannot be funded by this LCCMR grant.	Potential	\$250,000
			State Sub Total	\$250,000
Non-State				
Cash	Landowner and partners combined	A variety of expenses directly related to the individual landowner or partners sites such as contracting, material purchase, or indirect expenses related to management of the projects.	Pending	\$106,250
In-Kind	Total of 425 volunteers at \$24/hr (MN-DNR posted rate) averaging 4 hours of service per volunteer.	Restoration and enhancement volunteer hours for planting and seeding native species as well as monitoring the pollinator species on the projects.	Potential	\$40,800
In-Kind	GRG administrative match	GRG staff indirect administrative expense to do the work for this grant.	Secured	\$34,000
Cash	GRG cash match	GRG direct expenses to do the work for this grant.	Secured	\$25,500
In-Kind	Partner In-Kind	Landowner labor contributing to the direct execution of the projects, as well as the administrative labor going in to the project management.	Pending	\$10,000
			Non State Sub Total	\$216,550
			Funds Total	\$466,550

Acquisition and Restoration

Parcel List

Name	County	Site Significance	Activity	Acres	Miles	Estimated Cost	Type of Landowner	Easement or Title Holder	Status of Work
Anoka High School	Anoka	Turf and degraded fields at an educational institution adjacent to corridors of woodland and floodplain on the Rum River.	Restoration	4	-	\$42,500	Public		Has not begun
Bassett Creek Park	Hennepin	Diverse mosaic of forest, lake, and highly visited trails for turf to prairie conversion.	Restoration	9	-	\$60,000	Public		Has not begun
Copperfield Ponds Park	Dakota	Community park with woodland habitat focused on pollinator enhancement & restoration.	Restoration	8	-	\$50,000	Public		Has not begun
Creekside Park	Carver	New community park with creek and trailside habitat establishment.	Restoration	5	0.75	\$68,200	Public		Has not begun
Garlough and Marthaler Parks	Dakota	Oak savanna, woodlands and wet forest with shoreline, invasive removal and pollinator enhancement.	Restoration	8	0	\$66,600	Public		Has not begun
Henry Sibley High and Garlough Elementary	Dakota	High use trail side and open lawn turf conversions to prairie at educational institutions.	Restoration	5	-	\$49,100	Public		Has not begun
Hidden Falls	Ramsey	Regional park with floodplain habitat complex to get pollinator focused restoration/enhancement.	Restoration	18	-	\$70,300	Public		Has not begun
Lebanon Hills Regional Park	Dakota	Large mixed habitat oak savanna parkland in the midst of an urban / suburban area.	Restoration	40	-	\$27,200	Public		Has not begun
Linear Park	Ramsey	Utility corridor with established walking path and wetlands, turf to prairie restoration.	Restoration	6	-	\$51,200	Public	Northern States Power Co.	Has not begun
Lower Landing	Ramsey	Urban floodplain park along Mississippi Migration corridor.	Restoration	0	-	-	Public		No longer being considered
Spring Lake Regional Park	Scott	Lake shoreline with woodland habitat to receive pollinator ehancement.	Restoration	10	-	\$38,000	Public		Has not begun
Stephen's Park	Hennepin	Mississippi shoreline park with farmland, community amenities, and river access.	Restoration	3	-	\$20,900	Public		Has not begun
Totals				116	0.75	\$544,000			

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.

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: [a8ab0c9c-f7a.pdf](#)

Alternate Text for Map

M.L. 2021 Pollinator Central II - Great River Greening map of proposed project sites on a Minnesota county map surrounded by pictures of people and pollinators....

Financial Capacity

File: [f95b5ec9-3f2.pdf](#)

Board Resolution or Letter

Title	File
LCCMR ML2021 Pollinator Central II GRG Board Resolution	f716016f-3a2.pdf

Optional Attachments

Support Letter or Other

Title	File
Creekside City Of Carver LCCMR ML2021 GRG	6caf4e58-b70.pdf
Little Canada Letter of Support for Great River Greening	51ff9666-d43.pdf
Dakota County Letter of Support GRG	669cb499-eb7.doc
City of Crystal Letter of Support GRG	d9b9db29-a90.pdf
Scott County Letter of Support for Great River Greening	fe45ace0-037.pdf
Great River Greening ENRTF Background Check Certification Form	19cbd963-265.pdf
2021-07-06_ENRTF Background Check Certification Form FINAL	c2255d9a-ab7.pdf

Difference between Proposal and Work Plan

Describe changes from Proposal to Work Plan Stage

Budgets and acreage totals for individual projects were evaluated for scalability and adjusted accordingly, with reductions to the professional / technical contracts, supplies, and Greening staff labor made where applicable. Volunteer and monitoring event expenses, personnel time, and impacted number of volunteers were reduced proportionately according to the scaled number of events to be held. One project was reduced to a zero budget but retained in the overall plan as a potential possibility. Non ENRTF Funds Contributed were reduced proportionately to the reduction in project size and anticipated Outdoor Heritage Fund appropriation value. A reporting schedule of Feb 1 and Aug 1 was requested and approved. The public ownership of Linear Park was confirmed and updated. The milestones were clarified to include measurable outcomes. The miles in the Garlough and Marthaler Parks parcel were successfully changed from 0.34 miles to 0 miles.

(July 8, 2021, RCT) - Background check form was completed and attached to the workplan. The University of Minnesota and Xerces Society budgets were changed to Sub-awards. Lower Landing acreage and budgets (which had already been zeroed out in the previous changes) was updated to "No longer being considered".

(July 15, 2021, RTC) - Comment 1113 - Budget lines for the Operations and Finance Directors were removed, totals were

reallocated into applicable non-director staff, total personnel budget and activity budget totals remain the same.
Comment 1114 - Completed Background Check Certification Form attached again with no title changes.

Additional Acknowledgements and Conditions:

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

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

N/A

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

Yes, I agree to the Commissioner's Plan.

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

No

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

N/A

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

N/A

Does your project include original, hypothesis-driven research?

No

Does the organization have a fiscal agent for this project?

No

Pollinator Central II : Habitat Restoration and Community Monitoring

