



# Environment and Natural Resources Trust Fund (ENRTF)

## M.L. 2020 ENRTF Work Plan (Main Document)

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**Today's Date:** February 24, 2020

**Date of Next Status Update Report:** February 1, 2021

**Date of Work Plan Approval:**

**Project Completion Date:** June 30, 2023

**Does this submission include an amendment request?** \_N\_  

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**PROJECT TITLE:** Pollinator Central: Habitat improvement with citizen monitoring, Twin Cities to St. Cloud.

**Project Manager:** Rebecca (Becca) Tucker, Program Manager – Twin Cities Metro

**Organization:** Great River Greening

**College, Department, or Division:** Conservation

**Mailing Address:** 251 Starkey Street, Suite 2200

**City, State, Zip Code:** St. Paul, MN 55017

**Project Manager Direct Telephone Number:** 651-272-3982

**Email Address:** rtucker@greatrivergreening.org

**Web Address:** greatrivergreening.org  

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**Location:** Metro and Central Regions, 18 counties from Twin Cities to St. Cloud area  

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**Total Project Budget:** \$750,000

**Amount Spent:** \$0

**Balance:** \$750,000  

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**Legal Citation:** M.L. 2020, Chp. xx, Sec. xx, Subd. xx

**Appropriation Language:**

## **PROJECT STATEMENT:**

We will restore and enhance 420 acres of pollinator habitat on approximately 20 traditional and nontraditional sites, from Twin Cities to St. Cloud, to benefit pollinators and build knowledge of impact through citizen monitoring.

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 and 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. These improvements will increase floral resources and improve nesting and over-wintering habitat for pollinators. A total of 400 habitat volunteers will be engaged in field activities.

Site selection will follow ranking by the Habitat Assessment Guide for Rusty Patched Bumble Bee (Xerces) 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.

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, in order to collect useful data on pollinator response to habitat improvements, effectively engaging 100 citizen scientists in monitoring efforts by requiring reasonable time, skill, and expense, making the approach scaleable. A final report will be generated and disseminated that will help guide the implementation in future phases of this program.

## **II. OVERALL PROJECT STATUS UPDATES:**

**First Update February 1, 2021**

**Second Update August 1, 2021**

**Third Update February 1, 2022**

**Fourth Update August 1, 2022**

**Fifth Update February 1, 2023**

**Final Report between project end (June 30) and August 15, 2023**

## **III. PROJECT ACTIVITIES AND OUTCOMES:**

### **ACTIVITY 1 Title: Pollinator Habitat Restoration and Enhancement**

#### **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 area, anchored by Twin Cities and greater 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 1 ENRTF BUDGET: \$646,000**

<b>Outcome</b>	<b>Completion Date</b>
1. Site selection, management planning	<i>June 30, 2021</i>
2. Restoration and Enhancement implementation	<i>June 30, 2023</i>

**First Update February 1, 2021**

**Second Update August 1, 2021**

**Third Update February 1, 2022**

**Fourth Update August 1, 2022**

**Fifth Update February 1, 2023**

**Final Report between project end (June 30) and August 15, 2023**

**ACTIVITY 2 Title: Citizen Science Pollinator Monitoring**

**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 at least 16 sites, with training; non-lethal bumble bee capture with expert identification 3 times per year for 3 years on one site; and 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, Xerces Society and the Bee Lab.

**ACTIVITY 2 ENRTF BUDGET: \$104,000**

<b>Outcome</b>	<b>Completion Date</b>
1. Baseline surveys for each of the 20 sites	<i>June 30, 2021</i>
2. Site by site monitoring plan	<i>June 30, 2021</i>
3. Data collection and final report	<i>June 30, 2023</i>

**First Update February 1, 2021**  
**Second Update August 1, 2021**  
**Third Update February 1, 2022**  
**Fourth Update August 1, 2022**  
**Fifth Update February 1, 2023**  
**Final Report between project end (June 30) and August 15, 2023**

**IV. DISSEMINATION:**

**Description:**

The Minnesota Environment and Natural Resources Trust Fund (ENRTF) will be acknowledged through use of the trust fund logo or attribution language on project print and electronic media, publications, signage, and other communications per the [ENRTF Acknowledgement Guidelines](#).

**First Update February 1, 2021**  
**Second Update August 1, 2021**  
**Third Update February 1, 2022**  
**Fourth Update August 1, 2022**  
**Fifth Update February 1, 2023**  
**Final Report between project end (June 30) and August 15, 2023**

**V. ADDITIONAL BUDGET INFORMATION:**

**A. Personnel and Capital Expenditures**

**Explanation of Capital Expenditures Greater Than \$5,000: N/A**

**Explanation of Use of Classified Staff: N/A**

**Total Number of Full-time Equivalents (FTE) Directly Funded with this ENRTF Appropriation:**

Enter Total Estimated Personnel Hours for entire duration of project: 3,984	Divide total personnel hours by 2,080 hours in 1 yr = TOTAL FTE: 1.9
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**Total Number of Full-time Equivalents (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation:**

Enter Total Estimated Contract Personnel Hours for entire duration of project: 5,584	Divide total contract hours by 2,080 hours in 1 yr = TOTAL FTE:2.7
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**VI. PROJECT PARTNERS:**

- A. Partners outside of project manager’s organization receiving ENRTF funding: Xerces Society, U of M Bee Lab
- B. Partners outside of project manager’s organization NOT receiving ENRTF funding . Landowners (see parcel list), Volunteers.

## **VII. LONG-TERM- IMPLEMENTATION AND FUNDING:**

We anticipate that there will be additional need and opportunity for future multiple phases in this Pollinator Central corridor.

Landowners will commit to long term maintenance of the restoration sites.

## **VIII. REPORTING REQUIREMENTS:**

- Project status update reports will be submitted February 1 and August 1 each year of the project
- A final report and associated products will be submitted between June 30 and August 15, 2023

## **IX. SEE ADDITIONAL WORK PLAN COMPONENTS:**

**A. Budget Spreadsheet**

**B. Visual Component or Map**

**C. Parcel List Spreadsheet**

**D. Acquisition, Easements, and Restoration Requirements**

**E. Research Addendum**

Attachment A: Project Budget Spreadsheet  
 Environment and Natural Resources Trust Fund  
 M.L. 2020 Budget Spreadsheet



Legal Citation:

Project Manager: Rebecca (Becca) Tucker

Project Title: Pollinator Central: Habitat improvement with citizen monitoring from Hastings to St. Cloud

Organization: Great River Greening

Project Budget: \$750,000

Project Length and Completion Date: 3 years; June 30, 2023

Today's Date: February 24, 2020

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET		Budget	Amount Spent	Balance
<b>BUDGET ITEM</b>				
<b>Personnel (Wages and Benefits)</b>		\$ 116,000	\$ -	\$ 116,000
4 Ecologist, \$86,000 (83% salary, 17% benefits), 36% FTE each year for 3 years				
3 Field Crew Members, \$7,300 (68% salary, 32% benefits), 6 % FTE each year for 3 years				
2 Volunteer Outreach, \$16,000 (83% salary, 17% benefits), 14% FTE each year for 3 years				
2 Administration \$ 13,000 (62% salary, 38% benefits), 7 % FTE each year for 3 years				
<b>Professional/Technical/Service Contracts</b>				
Restoration and Enhancement sub-contracts following state competitive RFP requirements		\$ 381,000	\$ -	\$ 381,000
U of M Bee Lab, to 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.		\$ 28,000	\$ -	\$ 28,000
Xerces Society, to 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.		\$ 36,000	\$ -	\$ 36,000
<b>Equipment/Tools/Supplies</b>				
Seeds, plugs, herbicide, tools for R/E activities conducted by Greening crew, volunteers, landowners		\$ 173,000	\$ -	\$ 173,000
Sampling materials		\$ 3,000	\$ -	\$ 3,000
<b>Capital Expenditures Over \$5,000</b>				
<b>Printing</b>				
Outreach materials, dissemination materials		\$ 1,000	\$ -	\$ 1,000
<b>Travel expenses in Minnesota</b>				
Greening truck and POV mileage, occasional overnight lodging, meal reimbursement per Commissioner's Plan		\$ 5,000	\$ -	\$ 5,000
<b>Other</b>				
Volunteer Event healthy food and bvg; rentals (potty, tent, table/chairs, security): 500 vols, \$6K.		\$ 6,000	\$ -	\$ 6,000
Dissemination at 2 conferences @ \$500 each including out of state travel. These conferences are tbd but Society for Ecological Restoration Midwest-Great Lakes Chapter is one example; dissemination is of regional significance.		\$ 1,000	\$ -	\$ 1,000
<b>COLUMN TOTAL</b>		\$ 750,000	\$ -	\$ 750,000
<b>SOURCE AND USE OF OTHER FUNDS CONTRIBUTED TO THE PROJECT</b>				
	<b>Status (secured or pending)</b>	<b>Budget</b>	<b>Spent</b>	<b>Balance</b>
<b>Non-State:</b> City, County, Township, ISD: Site specific match, typically for labor; Private foundations, typically for labor in a certain geography or conservation goal; Corporations, typically for private volunteer events.	pending	\$ 90,000	\$ -	\$ 90,000
Federal: e.g. National Fish and Wildlife Foundation for pollinator habitat and/or citizen engagement.	pending	\$ 46,000	\$ -	\$ 46,000
<b>In kind:</b> Landowner R/E activities e.g. site prep, seeding, invasive control, hauling	pending	\$ 35,000	\$ -	\$ 35,000
<b>Other ENRTF APPROPRIATIONS AWARDED IN THE LAST SIX YEARS</b>		<b>Budget</b>	<b>Spent</b>	<b>Balance</b>
<b>ML 2016</b> Upland, Wetland, and Shoreline Restoration in Greater Metropolitan Area	\$ -	\$ 509,000	\$ 479,000	\$ 30,000
<b>ML 2017</b> Community Stewardship to Restore Urban Natural Resources—Phase X	\$ 305,000	\$ 524,000	\$ 184,000	\$ 340,000



*Instructions: Please include on the following list all targeted parcels that you are currently considering for acquisition (fee title or easement) or restoration (all phases) using the appropriation. The list may include more parcels than you will ultimately acquire or conduct restoration work on with the funds. To be eligible as part of your project, however, a parcel must be included on the list. Changes may be requested through the amendment process. Please update the status column and submit with your periodic workplan updates. Include any significant issues related to any particular parcel in your activity and project status sections of your Main Workplan Document.*

#	Acquisition or Restoration Parcel Name	Geographic Coordinates		Estimated Cost	Estimated Annual PILT Liabilities	County	Site Significance	Activity Description (all restoration)	# of Acres	# of Shoreline Miles	Type of Landowner	Proposed Fee Title or Easement Holder	Status of work
		Latitude	Longitude										
1.1	Westwood Hills Nature Center IV	44° 58' 05.7" N	93° 23' 33.6" W	\$ 45,500		Hennepin	highly visited large habitat core with mosaic of wetland, lake, shoreline, prairie, savanna, woodland, forest.	wetland, shoreline, savanna, and woodland pollinator patches	15		Municipality		Phases 1-3 complete/underway with Trust Fund and City funds
1.2	Commons Park	44° 54' 22.5" N	93° 33' 59.1" W	\$ 15,000		Hennepin	lake shoreline with woodland habitat	turf conversion to prairie, savanna knoll clearing, slopes exposes soil	3		Municipality		Engaged in landowner negotiations
1.3	Ramsey COR	45° 13' 53.2" N	3° 27' 36.8" W	\$ 6,000		Anoka	linear ROW adjacent to railroad ROW	turf conversion to tallgrass prairie ROW adjacent to RR	3		Municipality		Engaged in landowner negotiations
1.4	Sucker Lake/Lake Vadnais	45° 04' 35.2" N	93° 06' 14.4" W	\$ 60,000		Ramsey	aquatic, shoreline and wetland habitat complex	Shoreline and wetland pollinator enhancement	22		WMO		Engaged in landowner negotiations
1.5	Spring Lake Park Reserve: Phase I	44° 45' 23.0" N	92° 58' 56.1" W	\$ 60,000		Dakota	large habitat core with mosaic	Regal Fritillary habitat target; prairie enhancement with focus on violet; woodland patches	200		County		Engaged in landowner negotiations
1.6	Ritter Farm Park	44° 40' 23.7" N	93° 18' 01.2" W	\$ 36,000		Dakota	varied habitat with woodland edge	woodland opening and prairie establishment	16		Municipality		Engaged in landowner negotiations
1.7	Hidden Valley Park	44° 45' 47.2" N	93° 20' 34.4" W	\$ 15,000		Scott	high quality dry prairie remnant with rare species	pollinator lawn; enhance remnant, raingarden, reconstruction	5		Municipality		Earlier work funded by Trust Fund and City
1.8	Sedan Brook SNA	45° 32' 52.5" N	95° 05' 12.1" W	\$ 30,000		Stearns	habitat core for wet prairie, woodland, riparian	wet-mesic prairie reconstruction to add to existing habitat core	10		State		Engaged in landowner negotiations
1.9	Liberty Glen Park: Phase I	45° 32' 16.0" N	94° 08' 28.9" W	\$ 58,000		Sherburne	part of large habitat complex in river valley	floodplain wetland enhancement; pollinator patches in adjacent Talahi Woods (following OHF)	25		Municipality		Engaged in landowner negotiations
1.10	Dakota Trail	44° 55' 09.9" N	93° 42' 55.7" W	\$ 60,000		Hennepin	recent 3RPD acquisition; adjacent to current trail site	restore old field to prairie	30		Park District		Engaged in landowner negotiations
1.11	Mississippi River Bluff	45° 13' 28.2" N	93° 28' 10.0" W	\$ 30,000		Hennepin	two sites along river bluff; future trail site	restore old field to prairie	15		Park District		Engaged in landowner negotiations
1.12	Inspiration Easement	45° 00' 45.2" N	92° 47' 26.0" W	\$ 40,000		Washington	restored prairie in river corridor	interseeding prairie	20		Municipal Easement		Engaged in landowner negotiations

1.13	Hidden Falls/Crosby Farm/Meeker Dam	44° 54' 17.1" N	93° 11' 26.5" W	\$ 25,000	Ramsey	forest, woodland, savanna, prairie, shoreline, wetland mosaic in river corridor	interseeding; woodland; turf conversion; pollinator turf	10	Municipality	Engaged in landowner negotiations
1.14	St. Louis Park: Oak Hill / Louisiana Oaks	44° 56' 36.4" N	93° 22' 33.0" W	\$ 20,000	Hennepin	high visitation site, woodland and edge habitat	woodland opening and pollinator planting	8	Municipality	Engaged in landowner negotiations
1.15	Maplewood City Hall	45° 00' 13.3" N	93° 01' 15.4" W	\$ 25,000	Ramsey	high visitation site with mosaic of wetland, shoreline, turf, prairie, savanna	pollinator lawn, prairie, wetland, pollinator woodland patches	5	Municipality	Engaged in landowner negotiations
1.16	Clear Lake Twsp Park	45° 24' 21.0" N	93° 59' 46.6" W	\$ 9,000	Sherburne	high prairie and savanna potential site, in river corridor	butterfly garden; plugs	2	Municipality	Engaged in landowner negotiations
1.17	Woodbury Basins: Phase I	44° 55' 08.0" N	92° 56' 12.2" W	\$ 55,000	Washington	highly visible sites in development cores with corridor habitat	one of two highly visible stormwater basins incl City Hall	17	Watershed District	Engaged in landowner negotiations
1.18	State Highway ROW	45° 19' 02.0" N	93° 39' 59.7" W	\$ 25,000	Sherburne	State Highway 24 linear corridor habitat	turf conversion, pollinator lawn	5	MnDOT	Engaged in landowner negotiations
1.19	Clearview Elementary School Forest	45° 26' 16.3" N	94° 00' 53.5" W	\$ 30,000	Sherburne	high quality prairie remnant stressed by red cedar encroachment	Red cedar removal to release prairie remnant	10	ISD	Pollinator gardens underway with private funds
1.20	Crow Lake Twsp BSWR RIM Easement	45° 28' 36.2" N	95° 01' 23.7" W	\$ 1,500	Stearns	59 ac grassland, wetland mosaic in ag landscape	Intensive pollinator seeding	1	Protected Private	Engaged in landowner negotiations
1.21	Shakopee High School	44° 46' 11.799" N	93° 31' 0.981" W	\$ -	Scott	High school pollinator garden	Intensive pollinator planting, engaging students	0.2	ISD	Engaged in landowner negotiations

NOTES: Activity 2 Monitoring will occur on these same sites but is a separate cost.



## **Attachment D. Additional Work Plan Information for Restoration**

Great River Greening statement.

1. All restoration activities completed with these funds will occur on land permanently protected by a conservation easement or public ownership.
2. Restoration plans include target community, timelines, methods, budgets and long term maintenance. These plans are filed electronically by unique project numbers. 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.
3. 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.
4. We contact the Conservation Corps of Minnesota once the grant is secured to seek their interest for any restoration activities.
5. 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.

