

**Environment and Natural Resources Trust Fund
2016 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 100-C

Extension Master Gardeners Expand Habitats for Minnesota's Pollinators

Category: C. Environmental Education

Total Project Budget: \$ 171,734

Proposed Project Time Period for the Funding Requested: 2 years, July 2016 to June 2018

Summary:

Extension Master Gardener Volunteers will educate their communities and promote the use of native plants in small-scale landscapes as an important way to address pollinator decline.

Name: Leslie Yetka

Sponsoring Organization: U of MN - MN Landscape Arboretum

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Location

Region: Statewide

County Name: Statewide

City / Township:

Alternate Text for Visual:

Regions of MN with Extension Master Gardeners - All regions of the state. Master Gardener Priorities - top two are promoting biodiversity & conservation and protecting pollinators.

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ TOTAL	_____ %

PROJECT TITLE: *Extension Master Gardeners Expand Habitats for Minnesota’s Pollinators*

I. PROJECT STATEMENT

WHY: Almost 90% of the world’s flowering plant species are pollinated by animals and depend on insects, birds, bats and other organisms to transport the pollen for them. More than 100,000 varieties of insects, including bees, moths, butterflies, beetles and flies, serve as pollinators. Minnesota is home to about 400 species of native bees, about 2,500 species of native butterflies and moths, and many other native insect pollinators such as wasps, flies, and beetles. The native plant communities of Minnesota have their own suite of bio-diverse plant and pollinator species that exist in a delicate balance. In Minnesota’s increasingly altered landscape we are seeing troubling declines in the diversity of both our native flowering plants and native pollinators with serious long-term implications for a whole host of issues from agricultural productivity to the ability to produce life saving drugs.

GOAL: Increase the quantity and quality of habitat for pollinators across Minnesota.

HOW: This proposal focuses on building the capacity of its Extension Master Gardener Volunteers, who number 2,350 strong and have a presence in 77 of 87 Minnesota Counties, to educate and promote the use of native plants in the landscape. Native plants are adapted to the local climate and soil conditions where they naturally occur. Native plants work well for many landscaping and wildlife habitat plantings, because once established, they seldom need watering, mulching, protection from frost or continuous mowing. Native plants provide nectar, pollen, and seeds that serve as food for native bees and other insect pollinators – butterflies, birds and other animals – while some commonly used horticultural plant varieties do not produce nectar and/or pollen and may require insect pest control to thrive. Master Gardeners recently identified “pollinator decline” as a top concern, so this proposed effort would provide an important and meaningful way for Master Gardeners to address this critical issue.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1: Extension Master Gardener Volunteers will educate communities across Minnesota on the benefits to pollinators of using native plants in the landscape. Budget: \$ 61,384

Extension Master Gardener Volunteer Program Education Manager, Leslie Yetka, will lead a statewide education effort focused on the benefits of using native plant species in small-scale landscapes that could include: libraries, courthouses, school-yards, neighborhood groups and others. Education programs will emphasize the benefits to pollinators of using native plant species and include topics such as: the ecology of honeybees and native bees; plant selection for pollinator forage; bee lawns and rethinking turf management; pollinators and pesticides and many more topics.

Outcome	Completion Date
Kick-off event/training at Tashjian Bee and Pollinator Discovery Center	Early fall 2016
Website content will be created for the Extension Master Gardener website	12/31/2016
Build local capacity for educating the public on the issue of pollinator habitat preservation and protection – 200 Extension Master Gardeners are trained.	6/30/2017
Master Gardeners will provide public education on this topic reaching over 5,000 Minnesotans with educational messages and hands-on activities.	6/30/2018

Activity 2: Extension Master Gardener Volunteers work with up to 20 groups to implement demonstration projects in small-scale landscapes that restore native habitats to benefit pollinators Budget: \$ 110,350

Through this statewide education and engagement initiative, Master Gardeners will work with groups – from neighborhood groups to libraries – to plan demonstration projects for small-scale landscape using native plants. Project teams will have access to a landscape designer who will provide technical assistance. Each project will be designed to fit the unique local soil and climate conditions. Habitats within the each landscape will need to be identified based on light and moisture regimes so that proper plant species can be chosen. When the area is ready, each team will shop for native plants ensuring that plants purchased will be adapted to the particular site conditions. Once established each

demonstration will require minimal maintenance and will not need fertilizer or pesticides. Maintenance should be limited to weeding and sometimes trimming. Interpretive signage will be installed at each site acknowledging the statewide effort supported by the Environment and Natural Resources Trust Fund to restore native habitats in small-scale landscapes to benefit pollinators.

Outcome	Completion Date
Program to sponsor small-scale landscape demonstrations announced at Kick-off event/training at Tashjian Bee and Pollinator Discovery Center	Early Fall 2016
Master Gardeners identify groups and apply to be part of the program to plant native plant species in a variety of small-scale landscapes.	3/15/2017
Up to 40 Master Gardener projects from around the state representing a range of landscapes and conditions are selected to be part of this demonstration program.	4/22/2017
Demonstration projects begin (site preparation, planting, install signage)	Spring-Fall 2017
Site maintenance – replanting – community involvement/education at the site	Ongoing
Statewide culminating event	June 2018

III. PROJECT STRATEGY

A. Project Team/Partners

Leslie Yetka is the Education Manager for the Extension Master Gardener Volunteer Program with primary responsibility for leading this program. She has extensive experience working in the upland habitat and water resource management field and with diverse audiences. She holds a Bachelor’s degree in Biology from Macalester College and a Master’s Degree in Horticulture and Water Resources Science from the University of Minnesota.

Andrea Rice is the Education Specialist for Extension Master Gardeners Program with responsibility for web content development for this program. Andrea earned her Bachelor's and Master's Degrees in Agriculture from West Virginia University.

Statewide Education and Engagement Initiative Lead staff person (open position) this staff person will play a major role in implementing the day-to-day operations of this program.

Tim Kenny is the Arboretum’s Director of Education and the Statewide Director, Extension Master Gardener Volunteer Program. He has a broad background in the horticulture industry and extensive experience educating learners of all ages. Mr. Kenny’s degrees include: B. S. in Horticulture, Master of Science in Education, and a Master of Public Affairs.

B. Project Impact and Long-Term Strategy

The Arboretum is deeply committed to investing in initiatives that promote biodiversity in our plant communities and work to help stem the impact of habitat fragmentation. Given the rapid and continued modification of native landscapes in the region and the sensitivity of native plants to environmental change, this project is an important opportunity to provide broad-based public education and practical resources to people in their communities to begin mitigating these troubling changes. In addition, this proposed effort will highlight the important efforts underway to create a statewide resource to provide public education on the plight of our pollinators at the Tashjian Bee and Pollinator Discovery Center.

C. Timeline Requirements

This project will roll out in stages requiring two years to implement. Educating Master Gardeners will happen during the first year of the project. Once they feel empowered with information, they will be able to provide education in their communities. To effectively implement the small-scale landscape demonstration projects time will be required to galvanize community-energy around a project, select a site, conduct a thoughtful analysis of the conditions at each site, develop a plan, prepare the site for planting, plant, maintain, and observe the growth – and new life that comes to the site once the habitat is established.

2016 Detailed Project Budget

Project Title: Extension Master Gardeners Expand Habitats for Minnesota's Pollinators

IV. TOTAL ENRTF REQUEST BUDGET 2 years

BUDGET ITEM	AMOUNT	
Personnel:	\$	78,699
Leslie Yetka, Education Manager for the Extension Master Gardeners Program with primary responsibility for leading this program. (.10 FTE for years 1 and 2 @ 34% benefits)	\$	14,548
Statewide Education and Engagement Initiative Lead Staff with primary responsibility for coordinating the day-to-day program operations. (35 FTE for years 1 and 2 @ 34% benefits)	\$	45,440
Andrea Rice, Education Specialist for Extension Master Gardeners Program with responsibility for web content development and support. (.05 FTE for years 1 and 2 @ 34% benefits)	\$	5,427
One student intern (provides support for the statewide education and demonstration projects) 400 hours @ \$15/hr for both years 1 and 2 with .077 in taxes.	\$	13,284
Professional/Technical/Service Contracts:	\$	25,000
Landscape Designer specializing in native plants will be contracted with to work with each of the s20 mall-scale landscape demonstration projects to provide technical assistance. An RFP will be issued to select a landscape designer.	\$	25,000
Equipment/Tools/Supplies:	\$	14,500
Kick off event/training at Tashjian Bee and Pollinator Discovery Center (includes food - breakfast and lunch \$4,000; materials for a 1/2 day training for up to 200 \$1,000; and videotape of the training to make available to Master Gardeners on the website \$1,500)	\$	6,500
Culminating event at the Tashjian Bee and Pollinator Discovery Center (includes food - breakfast, lunch, and late afternoon reception)	\$	8,000
Travel:	\$	4,385
Food and lodging (use University of Minnesota rates) on-site training with Master Gardeners - 10 trips over 2 years for 2 people in Greater Minnesota that exceed 150 miles round trip	\$	2,660
Mileage reimbursement (use University of Minnesota rate) for trips in Greater Minnesota calculated at \$.575 per mile	\$	1,725
Additional Budget Items:	\$	49,150
Interpretive signage at up to 20 Extension Master Gardener small-scale landscape demonstration projects	\$	6,000
Fact sheets and fliers for public education forums	\$	3,150
Funding for each of 20 community-led small-scale landscape demonstration projects using native plants to increase that quantity and quality of habitat for pollinators. Each project will have up to \$2,000 to implement the demonstration planting.	\$	40,000
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$	171,734

V. OTHER FUNDS (This entire section must be filled out. Do not delete rows. Indicate "N/A" if row is not applicable.)

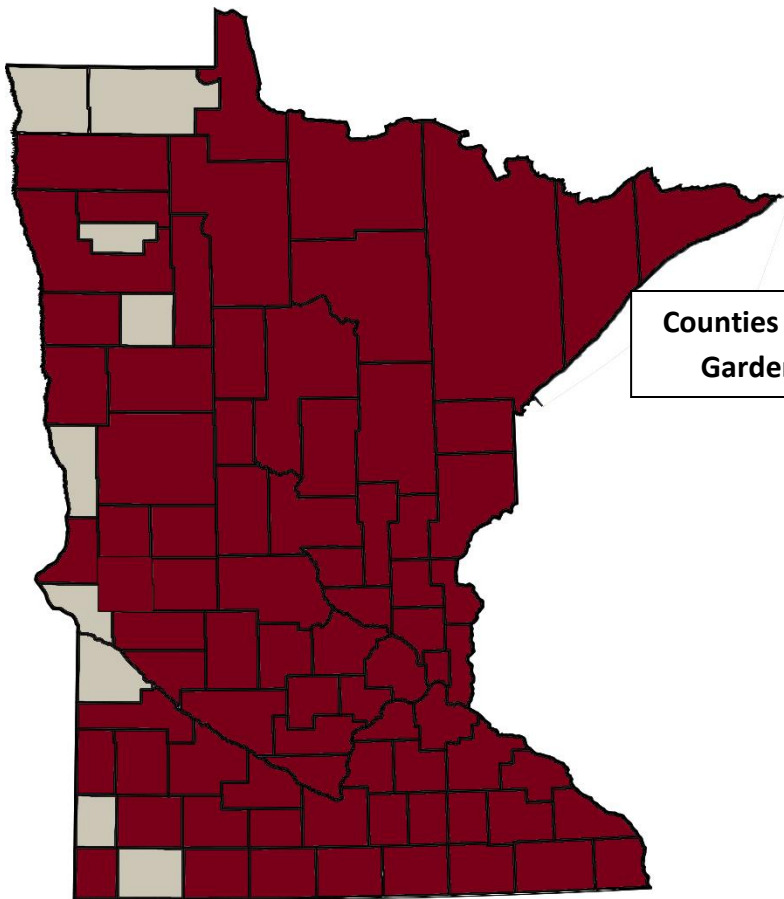
SOURCE OF FUNDS	AMOUNT	Status
Other State \$ To Be Applied To Project During Project Period: NA	N/A	N/A
In-kind Services To Be Applied To Project During Project Period: Master Gardener Volunteers (2,500 hours @ \$24.31/hr). Tim Kenny Arboretum's Director of Education and the Statewide Director, Extension Master Gardener Volunteer Program (.01 FTE salary & fringe - \$1,500)	\$	Secured
Funding History: The Arboretum has applied for support from the National Fish and Wildlife Foundation for Extension Master Gardener curriculum development and initial public education on the topic of using Milkweeds and Prairie Clover in the landscape to support pollinators and decrease habitat fragmentation.	\$	Pending
Remaining \$ From Current ENRTF Appropriation: (M.L. 2014, Chp. 226, Sec. 2. Subd. 09f, \$615,000 to develop exhibits for an educational center that will offer hands-on learning experience about the role of pollinators and the importance of pollinator habitat.)	\$	Unspent
Remaining \$ From Current ENRTF Appropriation: (M.L. 2015 ENRTF Appropriation is pending for \$167,000 to support a Native Orchid conversation Program on which Dr. Remucal is the project manager. The application if approved would start 7/1/2015)	\$	Not yet legally obligated

Extension Master Gardeners Expand Habitats for Minnesota's Pollinators



Minnesota Extension Master Gardener Volunteers by Region

- Minnesota Extension Master Gardener Priorities**
- Promoting biodiversity and conservation
 - Protecting pollinators
 - Enhancing and protecting clean water
 - Increasing resilience to a changing climate
 - Current research-based horticulture skills
 - Growing local food
- Learn more:
www.extension.umn.edu/garden/master-gardener/



Counties with an Extension Master Gardener Volunteer Program



Project Manager Qualifications & Organization Description

PROJECT MANAGER QUALIFICATIONS

Leslie Yetka

Leslie has a Bachelor's degree in Biology from Macalester College, and a Master's Degree in Horticulture from the University of Minnesota. Most recently, Leslie has been managing education programming for the Minnehaha Creek Watershed District. She has also held similar program management positions with the City of Burnsville and the Shakopee Mdewakanton Sioux Community, focusing on water, plant communities, and land stewardship practices.

Leslie's main focus is on managing the new *Horticulture Continuum of Learning* program area, developing and implementing education opportunities for four main audiences: Extension Master Gardeners, Arboretum Members, the urban agriculture community, and the public. She brings a broad and inclusive vision for healthy landscapes, healthy people and a healthy planet to her role at the Arboretum and Extension Master Gardeners Volunteer Program.

ORGANIZATION DESCRIPTION

Mission

The Minnesota Landscape Arboretum is deeply committed to connecting people and plants and is a vital community resource providing magnificent gardens, collections, and natural areas; offering life-long learning opportunities; and conducting cutting edge research on cold hardy plants and fruits.

History

The Arboretum was founded in 1958 by Dr. Leon Snyder, head of the University of Minnesota's Department of Horticultural Science. Education programming began in the Arboretum's first years after its establishment with guided tours and walks for visitors of all ages led by staff and trained volunteer guides. ***Participants served by Education Department programs has climbed steadily, reaching 20,442 in 1990, 38,000 in 2000 and 73,000 last year.***



The Arboretum is deeply invested in reaching underserved audiences and since 1988 has operated a Plantmobile that travels to schools and other community-based sites throughout the Twin Cities. In addition, through many long-term partnerships with community-based organizations, the Arboretum offers a summer gardening experience for 200 children ages 5-11 who plant and care for their own garden patches and learn about science and nutrition. For teens the Arboretum created a garden-based summer youth employment program with various tracks to foster community engagement, entrepreneurialism and encourage the development of basic employment skills. Most recently assumed leadership for the statewide Master Gardeners Program, extending its reach into all 87 Minnesota counties.