

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

Project Title:

ENRTF ID: 083-B

Integrating Targeted Watershed Planning Tools with Citizen Involvement

Category: B. Water Resources

Total Project Budget: \$ 169,108

Proposed Project Time Period for the Funding Requested: 3 years, July 2016 to June 2019

Summary:

To demonstrate targeted subwatershed conservation planning and innovative citizen engagement to facilitate improvements in one of the most degraded watersheds in the state.

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Location

Region: Statewide

County Name: Statewide

City / Township:

Alternate Text for Visual:

Targeted watershed planning and citizen engagement framework: 1. Inventory GIS prioritization and modeling tools and prioritize subwatersheds; 2. Develop pollution reduction strategies in five priority subwatersheds; 3. Citizens and local partners develop and implement subwatershed strategies.

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



B PROJECT TITLE: Integrating targeted watershed planning tools with citizen involvement

I. PROJECT STATEMENT

The Le Sueur River Watershed continues to be one of the leading contributors of pollutant loads in the Upper Mississippi River Basin. Statewide, there is a need to better target pollution reduction in these high-loading agricultural watersheds. This project will clarify the most effective targeting tools, foster better coordination among public agencies, demonstrate targeted subwatershed conservation planning, and harness the energy of a citizen group to facilitate improvements in one of the most degraded watersheds in the state. National, state and local researchers have identified altered flow regime in the Le Sueur as a major stressor causing accelerated erosion in rivers and streams (Wilcock; MPCA Watershed Restoration and Protection Strategy [WRAPS]). These researchers and a locally-led citizen group, Le Sueur River Watershed Network (lesueurriver.org) concur that the solution lies in re-creating more storage, retention, and infiltration in the watershed in order to hold back water that is destabilizing these systems and contributing to water quality problems.

Many targeting tools are being developed and piloted in different locations across the state. This project will summarize conservation planning tools in a handbook that Local Government Units (LGUs) can use to determine what tool, or combination of tools, will help them more successfully target implementation. This is a logical next step to build upon and integrate data generated by MPCA’s WRAPS and Total Maximum Daily Load (TMDL) reports. We will work with the existing joint powers board, Greater Blue Earth River Basin Alliance (GBERBA), local partners and a citizen-led watershed group, Le Sueur River Watershed Network, to support better coordination and communication, and to target implementation in five priority subwatersheds in the Le Sueur River Watershed.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1: Research, summarize and disseminate information on prioritization tools Budget: \$42,277

Many of the targeted conservation planning models and calculators are anticipated to be available in the next year (e.g. Agricultural Conservation Planning Framework; Prioritize, Target, and Measure Application; linking water storage; Nitrogen BMP and Phosphorus BMP tools; etc.). LGU’s in rural watersheds may not have the staff, technology, and/or time to experiment with these diverse conservation prioritization programs. We will inventory tools, along with their intended use, necessary input data, technology requirements, and outputs. We will create a handbook and educate LGUs on the latest prioritization tools (for use regionally and/or statewide).

Outcome	Completion Date
1. Inventory of available GIS prioritization and planning tools and reduction calculators	June 2017
2. Compile data pertinent to running tools and calculators in Le Sueur River watershed	June 2017
3. A summary handbook for LGUs using precision technologies (GIS frameworks and models) in conservation planning.	June 2018
4. Educate LGUs on the latest prioritization tools (regionally and statewide)	June 2019

Activity 2: Develop targeted pollution reduction strategies in five Le Sueur River Subwatersheds Budget: \$42,277

Use the latest modeling tools to develop targeted pollution reduction strategies in five (5) priority subwatersheds. Collect, compile, and disseminate GIS, resource and water quality data about subwatersheds. Work with local partners and citizens to create subwatershed priorities and strategies. Assist local partners to prioritize projects and craft shovel-ready list within these subwatersheds.

Outcome	Completion Date
1. Modeled conservation planning scenario maps for five (5) subwatersheds using the latest modeling tools (including targeted conservation opportunity areas for BMPs, estimated pollution reductions)	June 2019



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2. Citizens, local and state partners work together to create pollution reduction strategies for subwatersheds	June 2019
3. Results shared regionally (LGUs and GBERBA) and statewide at conferences, meetings and workshops	June 2019

Activity 3: Citizen Engagement and Outreach

Budget: \$84,554

Engage citizens and local managers within targeted subsheds to clarify and promote BMPs that support pollution reduction strategies. We will use subwatershed data to explain historical, current conditions, impairments and modeled information to more clearly illustrate conservation opportunity areas based on citizen concerns. Le Sueur River Watershed Network citizens and local staff will develop and share pollution reduction strategies within each subwatershed through a series of interconnected small and large group meetings, field days, and one-on-one meetings. Landowners will reach out to neighbors to increase peer-to-peer networking to implement BMPs that support reduction strategies.

Outcome	Completion Date
1. Outreach materials such as subwatershed resource profiles, targeted conservation opportunity areas, and BMP implementation strategies	June 2019
2. Host watershed meetings to explain background issues, describe benefits of targeting and facilitate conversations that clarify goals and conservation opportunities among local staff and landowners: - Le Sueur River watershed-wide (3 per year = 9 meetings; ~700 people) - Selected subwatersheds (3 per each of 5 subwatersheds = 15 meetings; ~400 people) - Ground truthing to support GIS modeling results (10 trips per year = 30 trips) - Field days in each of the subwatersheds demonstrating targeted conservation planning and examples of effective BMPs in agricultural watersheds (6 field days; ~600 people)	June 2019
3. Citizens and local partners network with subwatershed neighbors to identify opportunities (e.g. shovel-ready list of BMPs) and promote implementation strategies	June 2019

III. PROJECT STRATEGY

A. Project Team/Partners

Supported by this Project: Water Resources Center, Minnesota State University, Mankato staff and student
 Supported by Other Projects & Staff Time: Le Sueur River Watershed Network (citizen-led group); Greater Blue Earth River Basin Alliance (Joint Powers Board of 11 counties in the Le Sueur, Blue Earth and Watonwan River watersheds); Blue Earth County/SWCD, Freeborn County/SWCD, Waseca County, Steele County/SWCD, Faribault County/SWCD

B. Project Impact and Long-Term Strategy

The project will help to inform a longer-term strategy to reduce pollutant loads in high-loading watersheds in the state. Over time the aim is to reduce the number and types of impairments and to improve water quality. Clarifying the many targeting tools available and creating a framework for using them will help local watershed professionals (e.g. watershed organizations, counties, soil and water conservation districts, etc.) better understand the tools and target their efforts. Citizens will have a clearer idea what conservation opportunities are within their subwatershed and which are the most effective and cost-efficient BMPs. This local consultative process with landowners based on targeted opportunity areas is a promising route to achieve pollutant reduction goals identified in the Le Sueur River Watershed Restoration and Protection Strategy.

C. Timeline Requirements

This project will require 36 months to complete and be underway from July 2016-June 2019.

2016 Detailed Project Budget

Project Title: *Integrating Targeted Watershed Planning Tools With Citizen Involvement*

IV. TOTAL ENRTF REQUEST BUDGET - Three (3) years

<u>BUDGET ITEM</u>	<u>AMOUNT</u>
Water Resources Center (WRC) Assistant Director Planning, coordination, reporting, administration, and educational outreach 30% FTE for 3 yrs; Salary=88%, Benefits= 12%	\$ 36,000
Staff - Watershed analysis and civic engagement 50% FTE for 3 yrs; Salary=64%, Benefits= 36%	\$ 93,277
Staff - GIS Watershed Analysis and Modeling 25% FTE for 2 yrs; Salary= 64%, Benefits= 36%	\$ 20,550
Student Intern (during academic year) 31% FTE for 2 academic yrs; Salary=100%, Benefits= 0%	\$ 7,056
Education and Outreach: 9 large group meetings (3/year) 9 room rentals @100= \$900; advertising- postage/printing and mailing (150/meeting=\$1,350); 15 Subwatershed meetings supplies -\$4000; Printing meeting materials - \$900 ; printing booklets for major and minor watersheds - \$1500	\$ 8,650
Travel: \$55/day of state vehicle Meetings with citizen and local resource managers - 40 trips=\$2200.00. Field verification of GIS - 10 trips=\$550. Meetings and field days @ 15 trips= \$825.	\$ 3,575
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 169,108

V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
Other Non-State \$ To Be Applied To Project During Project Period: <i>Le Sueur River Watershed Targeted Conservation Practices</i>	\$ 82,491	<i>Secured</i>
Other State \$ To Be Applied To Project During Project Period: <i>MSU Administration - Grant administration and other resources</i>	\$ 6,000	<i>Secured</i>
In-kind Services To Be Applied To Project During Project Period: <i>Local, state and federal staff time and Le Sueur River Watershed Network and citizen steering committee</i>	TBD	<i>Secured</i>
Remaining \$ From Current ENRTF Appropriation:	N/A	N/A

PROJECT TITLE: Integrating targeted watershed planning tools with citizen involvement
Project Manager Qualifications and Organization Description

Kimberly Musser, Project Manager

As Assistant Director of the Water Resources Center, Minnesota State University, Mankato, (WRC MSU-M), Kimberly Musser has coordinated a wide variety of Minnesota River Basin centered projects. She has served as project manager for the [Le Sueur River Civic Engagement Project](#), [Watowan Civic Engagement Project](#), [Southwest Minnesota Civic Engagement Cohort on Water Quality](#), [Minnesota Nutrient Planning Portal](#), [Minnesota Nutrient Reduction Strategy - Pilot Projects](#), [Minnesota River Basin Trends Report](#), [State of the Minnesota River Water Quality Monitoring Reports](#), [Minnesota River Experts: An Educational Field Trip Online](#), [Minnesota River Basin Data Center](#) website update and expansion, among many others. These projects have all centered on summarizing data and providing information to diverse audiences about the Minnesota River and its tributaries.

Kimberly brings over a decade of project management experience to the project. Additionally, she has developed and taught a dozen courses MSU-M in the Geography and Urban and Regional Planning departments. She holds a Master's degree in Community and Regional Planning from the University of Oregon and an undergraduate degree in Geography from the University of California at Berkeley.

Water Resources Center, Minnesota State University, Mankato (WRC, MSU-M)

In 1987 the WRC was created to serve as a regional center for gathering, interpreting, and distributing data of environmental significance. Faculty and students accomplish these tasks through applied research, educational programming, technical assistance, and water resource planning. In addition, we have GIS staff with the capacity to create sophisticated GIS analysis and maps and 3-dimensional landscape visualization. Using the latest data, the WRC works with citizens within the Minnesota River Basin to enhance the quality of regional lakes, rivers, wetlands, and groundwater.

Since its beginning, the WRC has participated in over 100 research, educational, and planning projects involving partnerships with dozens of public and private organizations. These projects range from groundwater, lake assessment, and TMDL studies to citizen engagement and water quality workshops, to the development of watershed-based plans for surface water quality protection. Our stability since 1987 stands as a testament to the objective and quality products we produce. Long-term partnerships with counties, nonprofit organizations, and state agencies have resulted in many important and far-reaching land and water resource initiatives. We have a dedicated staff and look forward to enhancing the public's understanding and connection with water resources in the region.