

**Environment and Natural Resources Trust Fund  
2019 Request for Proposals (RFP)**

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**Project Title:**

**ENRTF ID: 098-B**

Minnesota River Basin: Point-Nonpoint Water Quality Trading

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**Category:** B. Water Resources

**Sub-Category:**

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**Total Project Budget: \$** 399,634

**Proposed Project Time Period for the Funding Requested:** June 30, 2021 (2 yrs)

**Summary:**

A feasibility study and stakeholder engagement process to evaluate a point-nonpoint water quality trading program in the Minnesota River Basin, a cost-effective strategy to achieve nutrient reduction.

**Name:** Kimberly Musser

**Sponsoring Organization:** Minnesota State University - Mankato - Water Resources Center

**Title:** Associate Director

**Department:** Minnesota State University, Mankato

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**Web Address** http://cset.mnsu.edu/wrc/

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**Location**

**Region:** Statewide

**County Name:** Statewide

**City / Township:**

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**Alternate Text for Visual:**

A feasibility study and stakeholder engagement process to evaluate a point-nonpoint water quality trading program in the Minnesota River Basin, a cost-effective strategy to achieve nutrient reduction.

<input type="checkbox"/> Funding Priorities	<input type="checkbox"/> Multiple Benefits	<input type="checkbox"/> Outcomes	<input type="checkbox"/> Knowledge Base
<input type="checkbox"/> Extent of Impact	<input type="checkbox"/> Innovation	<input type="checkbox"/> Scientific/Tech Basis	<input type="checkbox"/> Urgency
<input type="checkbox"/> Capacity Readiness	<input type="checkbox"/> Leverage	<input type="checkbox"/> TOTAL	<input type="checkbox"/> %
<input type="checkbox"/> If under \$200,000, waive presentation?			



**PROJECT TITLE: Minnesota River Basin: Point-Nonpoint Water Quality Trading**

**I. PROJECT STATEMENT**

This feasibility study will build local capacity and frame up a voluntary point-nonpoint water quality trading program to reduce pollutants in the Minnesota River Basin (MRB). The Minnesota River and its tributaries are ranked among the most impaired waters in the state and many watersheds are listed as high priority for nitrogen and phosphorus reduction in *Minnesota’s Nutrient Reduction Strategy*. Water quality trading is a tool that could decrease the cost and increase the pace of water quality improvements in the MRB. Trading offers a strategy to ease historic tensions between point-nonpoint sources and an opportunity to build cooperative partnerships that lead to cleaner water.

This project will:

- Analyze existing nutrient reduction programs, case studies and policies, as well as economic alternatives.
- Assemble key stakeholders and facilitate a collaborative stakeholder process and dialog that develops public understanding and explores a range of options for addressing nutrient pollution in the MRB.
- Clarify existing obstacles and opportunities for trading and develop policy tools to forward to appropriate state agencies and legislative committees for consideration.

**II. PROJECT ACTIVITIES AND OUTCOMES**

**Activity 1:** *Analyze existing policies and economic scenarios for point-nonpoint nutrient trading*

The Water Resource Center at Minnesota State University-Mankato (WRC-MSU, Mankato) and project team will research and synthesize current regulations, rules, technical studies and case studies related to nutrient trading programs in Minnesota and the United States. The project team will perform a review of economic alternatives for pollutant reduction and highlight feasible and locally relevant options for review. A series of discussion guides will be developed that lay out options for reducing nutrient and sediment pollution in the MRB. Discussion guides will include: a broad review of economic alternatives for pollutant reduction in the MRB, an overview of point-nonpoint water quality trading programs, a summary of stakeholder perspectives, opportunities and constraints gleaned from interviews, an overview of existing trading case studies in Minnesota, and an overview of steps to develop a trading program.

**ENRTF BUDGET: \$124,313**

Outcome	Completion Date
1. Research and summarize rules, regulations and trading case studies (including lessons learned from existing programs) and develop summary documents	January 1, 2020
2. Identify and summarize opportunities and obstacles to implementing point-nonpoint trading in the MRB from technical and social dimensions	January 1, 2021

**Activity 2:** *Facilitate a collaborative stakeholder process to build local capacity for a water quality trading program*

The project team will identify a cohort of key stakeholders, design an engagement process, then plan, schedule and facilitate a series of in-depth stakeholder interviews and public dialogues. The process will include one-on-one interviews and stakeholder meetings to learn about a range of ideas and opinions and support a public discussion of nutrient trading options. Summary information and discussion papers will promote dialog among key stakeholders interested in developing a nutrient trading program as a viable alternative for reducing nutrients in the MRB. Discussions around trading will be broad enough to support innovative ideas that link



**Environment and Natural Resources Trust Fund (ENRTF)  
2019 Main Proposal**

economic development with conservation improvements and/or strengthen relationships among farmers, businesses, cities, and conservation partners.

**ENRTF BUDGET: \$ 82,854**

<b>Outcome</b>	<b>Completion Date</b>
1. Develop stakeholder process, interview and discussion guides to support a series of meetings that build a network of engaged key stakeholders	January 1, 2020
2. Convene, facilitate and document a minimum of 25 interviews and (8) eight stakeholder meetings (January 2020 – January 2021)	January 1, 2021

**Activity 3: Develop recommendations for new policy tools and approaches and craft strategy report**

The project team will develop a strategy report based on the discussions and recommendations advanced through the stakeholder interviews and community meetings. The group will discuss trading program elements such as policy and regulatory instruments to support trading, eligibility, quantifying water quality benefits, compliance tracking, and clarifying roles and responsibilities. The report will include recommended actions to support and implement a voluntary point-nonpoint trading program or other viable alternative to address nutrient pollution. After stakeholder review, the report will be forwarded to the appropriate state agencies and legislative committees for consideration and potential development of legislation, regulation and rules. Follow-up meetings will be held to track progress made in considering and applying this approach.

**ENRTF BUDGET: \$ 192,467**

<b>Outcome</b>	<b>Completion Date</b>
1. Prepare draft strategy report, stakeholder review, and final strategy report	June 30, 2021
2. Create a website and interactive map to disseminate information for stakeholders across the MRB	June 30, 2021

**III. PROJECT PARTNERS:**

**A. Partners receiving ENRTF funding**

Consultants: Economic Analysis; Water Quality Trading; Stakeholder Involvement; and Facilitator

**B. Partners NOT receiving ENRTF funding**

The stakeholder group will likely consist of representatives from the following groups: Minnesota Pollution Control Agency, Department of Natural Resources, Minnesota Department of Agriculture, Board of Water and Soil Resources, City of Mankato, League of Minnesota Cities, Association of Minnesota Counties, Minnesota Association of Townships, Minnesota Association of Soil and Water Conservation Districts, Minnesota Agricultural Water Resource Center, Minnesota Corn Growers Association, Minnesota Soybean Growers Association, Minnesota Environmental Science and Economic Review Board, Minnesota AgriGrowth Council, Minnesota River Congress, Conservation Minnesota, Friends of Minnesota Valley, Minnesota Rural Water Association and others determined through the stakeholder analysis.

**IV. LONG-TERM- IMPLEMENTATION AND FUNDING:**

The long-term impact of this project is to support development of a cost-effective strategy to achieve nutrient reduction in the MRB by potentially establishing a point-nonpoint water quality trading program.

**V. TIME LINE REQUIREMENTS:**

This project is expected to be completed in two years.

## 2019 Proposal Budget Spreadsheet

**Project Title: Minnesota River Basin: Point-Non Point Water Quality Trading**

### IV. TOTAL ENRTF REQUEST BUDGET [2] years

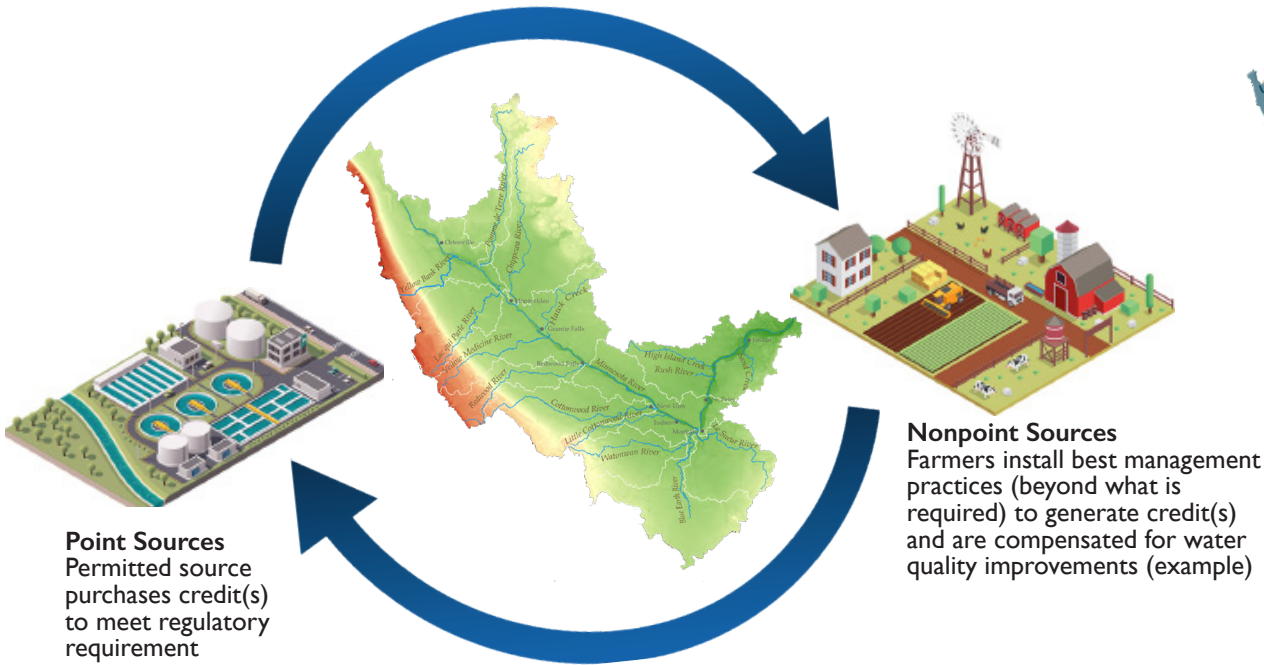
BUDGET ITEM (See "Guidance on Allowable Expenses")	AMOUNT
<b>Personnel:</b> Associate Director: \$79,560 (100% Salary and 14% Fringe); 50% FTE each year of the 2 years  Project Manager: \$41,560 (57% Salary and 39% Fringe); 33% FTE each year of the 2 years  GIS Specialist: \$44,374 (66% salary and 36% Fringe); 33% FTE each year of the 2 years	\$ 165,534
<b>Professional/Technical/Service Contracts:</b> Contractor - Water Quality Trading Specialist (Jim Klang): \$125,000 Contractor - Stakeholder Involvement Specialist (Lynne Kolze): \$44,000 Contractor - Economic Analysis Specialist (Dr. Dick Levens): \$50,000 Contractor - Facilitator: \$4,500	\$ 223,500
<b>Equipment/Tools/Supplies:</b> Steering Committee Meetings (8) - Meeting refreshments, rental and associated expenses \$2,600 Printing of promotional and meeting materials - \$5,000	\$ 7,600
<b>Acquisition (Fee Title or Permanent Easements):</b>	\$ -
<b>Travel:</b> Using IRS mileage rate of \$.46/mile and using MSU, Mankato vehicle rate of \$60/day and \$35/half day  Driving to interviews, steering committee meetings and events across the Basin. TBD	\$ 3,000
<b>Additional Budget Items:</b>	\$ -
<b>TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =</b>	<b>\$ 399,634</b>

### 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 Non-State \$ To Be Applied To Project During Project Period: Water Quality Success Story Case Studies (McKnight Foundation)	\$ 100,000	Pending
Other State \$ To Be Applied To Project During Project Period: Minnesota State University, Mankato New Servers	\$ 20,000	Secured
<b>In-kind Services To Be Applied To Project During Project Period:</b> Steering Team State Agency and Local Partner Staff Time: \$10,000 12% Indirects assessed by MSU, Mankato: \$47,956	\$ 57,956	Secured
<b>Past and Current ENRTF Appropriation:</b> Integrated Targeted Watershed Planning Tools with Citizen Involvement (2016); Educational Field Trip Online: Ask an Expert Minnesota River (2010); Minnesota River Basin Data Center Creation (1997)	\$ 417,000	Historic - Secured
Other Funding History:	\$ -	

# MINNESOTA RIVER BASIN: POINT-NONPOINT WATER QUALITY TRADING

Research point-nonpoint nutrient trading opportunities in the Minnesota River Basin

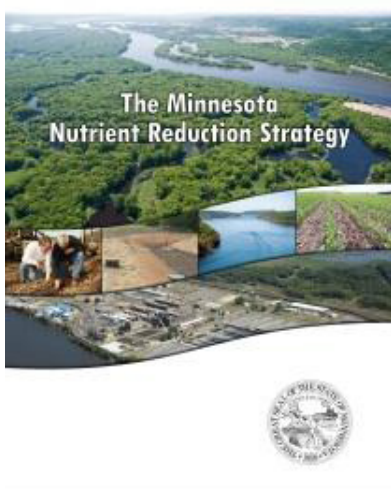


## 2 Facilitate collaborative stakeholder meetings to discuss and frame options

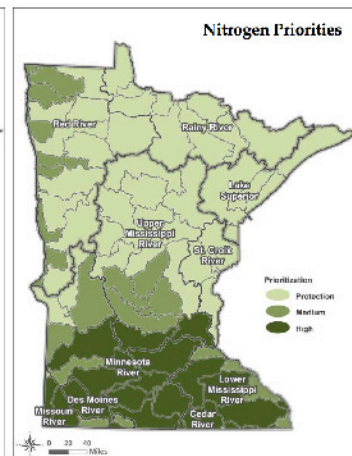
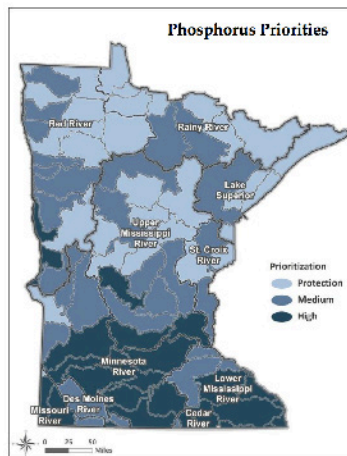


Photo: Willamette Partnership

## 3 Group develops strategies and policy tools for a nutrient trading program to reduce pollutant loads in the high priority Minnesota River Basin



The Minnesota Nutrient Reduction Strategy High Priority Watersheds



## **PROJECT TITLE: Minnesota River Basin: Point-Nonpoint Water Quality Trading**

### **Project Manager Qualifications and Organization Description**

#### **Kimberly Musser, Project Manager**

As Associate Director of the Water Resources Center, Minnesota State University, Mankato, Kimberly Musser brings over two decades of project management experience and has coordinated a wide variety of Minnesota River Basin centered projects. She has served as project manager for [\*Integrating Targeted Watershed Planning Tools with Citizen Involvement\*](#) (LCCMR, 2016) and [\*Minnesota River Experts: An Educational Field Trip Online\*](#) (LCCMR, 2010). She works with teams to distil and disseminate basin-wide information via reports ([\*Minnesota River Basin Trends Report\*](#), [\*State of the Minnesota River Water Quality Monitoring Reports\*](#), [\*Cannon River Trends Report\*](#)) and coordinates development of websites ([\*Minnesota River Basin Data Center Update and Expansion\*](#), [\*Minnesota Nutrient Planning Portal\*](#)). Musser has a long history of working with citizens and local conservation partners to support locally-led watershed planning efforts ([\*Le Sueur River Watershed Network\*](#), [\*Watonwan Civic Engagement Project\*](#), [\*East Fork Des Moines River Watershed PMZ\*](#), [\*Southwest Minnesota Civic Engagement Cohort on Water Quality\*](#)). She enjoys the challenge of taking complex technical and scientific information and making it understandable to broader audiences to help inform planning and decision making. She serves on the board of the [\*Friends of the Minnesota Valley\*](#), [\*Friends of Minneopa State Park\*](#) and the Minnesota River Congress. Additionally, she has developed and taught a dozen courses at Minnesota State University, Mankato 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 a Bachelor's degree in Geography from the University of California at Berkeley.

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

In 1987 the WRC-MSU, Mankato 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-MSU, Mankato works with citizens within the Minnesota River Basin to enhance the quality of regional lakes, rivers, wetlands, and groundwater.

Since its beginning, the WRC-MSU, Mankato 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.