

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

Project Title:

ENRTF ID: 238-FH

Farming for Water Quality: Implementation, Education, & Documentation

Category: H. Proposals seeking \$200,000 or less in funding

Sub-Category: F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat

Total Project Budget: \$ 97,321

Proposed Project Time Period for the Funding Requested: June 30, 2022 (3 yrs)

Summary:

This project will protect and enhance water quality through implementation, education, and documentation of regenerative farming practices within the Middle Fork Crow River Watershed and all water bodies downstream.

Name: Margaret Johnson

Sponsoring Organization: Middle Fork Crow River Watershed District

Title: Administrator

Department: _____

Address: P.O. Box 8

Spicer MN 56288

Telephone Number: (320) 796-0888

Email margaret@mfcrow.org

Web Address http://www.mfcrow.org

Location

Region: Central

County Name: Kandiyohi

City / Township: Spicer

Alternate Text for Visual:

This project will protect and enhance water quality through implementation, education, and documentation of regenerative farming practices within the Middle Fork Crow River Watershed and all water bodies downstream.

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity	_____ Readiness	_____ Leverage	_____ TOTAL _____%
_____ If under \$200,000, waive presentation?			



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

PROJECT TITLE: Farming for Water Quality: Implementation, Education, and Documentation

I. PROJECT STATEMENT: Our goal is to improve water quality, by reducing sediment, phosphorous, and contaminants of emerging concern (CECs) from reaching the Middle Fork Crow River through agricultural management practices, soil health education & documentation. The Middle Fork Crow River Watershed is a 271 square mile area in central Minnesota that enters the Mississippi near Dayton. As the predominant land-use in the watershed, agriculture has a large impact on water quality. Implementation of cover crops and other regenerative farming practices represent powerful water quality tools that increase water infiltration, quicken soil carbon sequestration, and reduce wind and water erosion while cooling and restoring the living ecosystem.

Surface Runoff is designated as a priority “A” level in the North Fork Crow River’s One Watershed, One Plan (1W1P); utilizing the Prioritize, Target, & Measure Application (PTMApp) as found in the 1W1P report, Middle Fork Crow River Watershed District staff identified critically erodible areas for the implementation of cover crops. Farming these acres is a local producer named Eric Lilleberg. Eric has agreed to incorporate cover crops into his rotation.

To ensure that Eric’s story is told and that other local producers are empowered to make best management changes on their own land, this project is fourfold: 1- Cover crop implementation; 2 - Annual regenerative farming events; 3 – Creation of a local cohort; 4 – Project documentation.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1: Cover Crop Implementation

Assist in implementing cover crops on the farm of Eric Lilleberg. Activity includes hiring an expert regenerative farming consultant, consulting with Eric for duration of grant, assist in soil testing, and purchasing cover crop seeds. Success in assisting local producer will be measured by acres of cover crops planted.

ENRTF BUDGET: \$52,828.40

Outcome	Completion Date
1. 280 acres of cover crops planted.	11-00-2019
2. 500 acres of cover crops planted.	11-00-2020
3. 1,000 acres of cover crops planted.	11-00-2021

Activity 2: Annual Local Soil Health Events

Promote, plan and hold soil health events to proliferate knowledge on the matter. All events will be held on the farms of local producer. Each event will include a key note address from a renowned soil health expert, a hands-on demonstration, a presentation by a local producer who has already implemented soil health practices, a panel discussion where attendees can engage with the speakers, and a field presentation. Success of each event will be measured by number of attendees.

ENRTF BUDGET: \$23,844.00

Outcome	Completion Date
1. A soil health event with > 40 producers in attendance.	11-00-2019
2. A soil health event with > 50 producers in attendance.	11-00-2020
3. A soil health event with > 60 producers in attendance.	11-00-2021



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

Activity 3: Local Cohort

Create and facilitate a local cohort of producers to gather and discuss soil health in practice. Gatherings will be facilitated by procuring a meeting space, inviting group members, and providing food. Success of local cohort will be on number of local producers in attendance.

ENRTF BUDGET: \$2,211.00

Outcome	Completion Date
1. Local Cohort of producers at 5; and hold spring and fall gathering.	11-00-2019
2. Local Cohort of producers at 10; and hold spring and fall gathering.	11-00-2020
3. Local Cohort of producers at 15; and hold spring and fall gathering.	11-00-2021

Activity 4: Documenting the entire process with video and audio recordings. We will gather video and audio of all events, cohort gatherings, and the process of our local farmer's (Eric's) transition from conventional farming to regenerative farming. Success of project documentation will be measured by number of events (presentations and demonstrations), conversations, and interviews that are videoed and recorded.

ENRTF BUDGET: \$17,688.00

Outcome	Completion Date
1. Video and audios records of all events, gatherings, many conversation, and field progress; with at least 2 interviews.	11-00-2019
2. Video and audios records of all events, gatherings, many conversation, and field progress; with at least 2 interviews.	11-00-2020
3. Video and audios records of all events, gatherings, many conversation, and field progress; with at least 2 interviews.	11-00-2021

III. PROJECT PARTNERS:

A. Partners receiving ENRTF funding

Name	Title	Affiliation	Role
N/A	N/A	N/A	N/A

IV. LONG-TERM- IMPLEMENTATION AND FUNDING: This proposal is consistent with water quality and quantity goals and objectives found in the North Fork One Watershed One Plan (1W1P), with specific connection to the Rural Stewardship criterion of the 1W1P. Project partners of the 1W1P will receive money annually for project implementation and education throughout the North Fork of the Crow River Watershed. In addition to the use of MFCRWD general operating funds, continual efforts will be made to seek grant funds to provide educational opportunities and financial assistance as methods for sustainable agricultural practices that would help to address the high nutrient and sediment loads reaching the Mississippi. **Without LCCMR funds, the events, the creation of a local producer cohort, cover crop implementation assistance and video and audio recording described in this proposal, will not take place.**

V. TIME LINE REQUIREMENTS: For the greatest return on effort this project must run for the greatest number of growing seasons possible (above budgets are proposed for a three-year grant period).

2019 Proposal Budget Spreadsheet

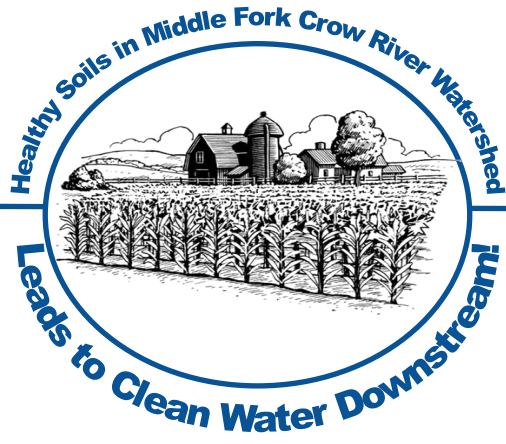
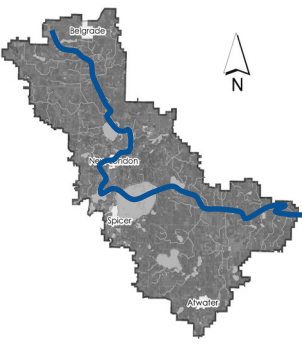
Project Title: Farming for Water Quality: Implementation, Educaiton, & Documentation

IV. TOTAL ENRTF REQUEST BUDGET [3] years

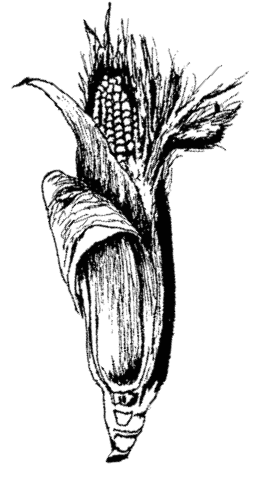
BUDGET ITEM (See "Guidance on Allowable Expenses")	AMOUNT
Personnel: Watershed Specialist wages to plan, promote & facilitate events (80 hrs per year @ \$23.57/hr X 3 years (4%FTE)); Watershed specialist wages to consult farmer (Lilleberg) on regenerative farming practice implementation (40 hrs per year @ 23.57/hr X 3 years(2%FTE)); Waterhshed Specialist wages to facilitate 2 local farmer group meetings per year (20 hrs per year @ \$23.57/hr X 3 years (1%FTE)); Watershed Specialist wages to document all project activities (events, group meetings, interviews, field flyovers (drone), field walkovers & cover crop implementation) (160 hrs per year @ \$23.57/hr X 3 years (8%FTE)), (Watershed Specialist total estimated amount \$21,213.00)	\$21,213.00
Personnel: Hydrologic Technician wages to assist in planning, promotion, & facilitation of events (40 hrs per year @ \$26.56/hr X 3 years (2%FTE)); Hydrologic Technician wages to assist in facilitation of 2 local farmer group meetings per year (10 hrs per year @ \$26.56/hr X 3 years (.5%FTE)); Hydrologic Technician wages to assist in documentation of all project activities (events, group meetings, interviews, field flyovers (drone), field walkovers & cover crop implementation) (80 hrs per year @ \$26.56/hr X 3 years (4%FTE)), (Hydrological Technician total estimated amount \$10,358.40)	\$10,358.40
Professional/Technical/Service Contracts: Kent Solberg, regenerative farming consultant to plan implementation of cover crops on Lilleberg Farm (\$1,500.00 for one full day of initial planning + 10 hrs per year @ \$135.00/hr X 3 years) (consultant total estimated amount \$5,550.00)	\$5,500.00
Professional/Technical/Service Contracts: Event: speakers (Dr. Allen Williams, Gabe Brown, Ray Archuleta), presenters (Molly Haviland, Grant & Dawn Breitreutz, & other soil health leaders) and hosts (Eric Lilleberg, Clifford Johnson, & Brian Ryberg (local producers)) compensation (\$5,000.00 per event X 3) (event presenter total estimated amount \$15,000.00)	\$15,000.00
Equipment/Tools/Supplies: Cost of cover crop seed (yr 1: \$25/acre on 280 acres; yr 2: \$25/acre on 500 acres; yr 3: \$25/acre on 1,000 acres) (cover crop seed total estimated amount \$44,500.00);	\$44,500.00
Acquisition (Fee Title or Permanent Easements): N/A	N/A
Travel: listed below as in-kind	In-Kind
Additional Budget Items: Promotional activity costs: printing, presentation/display supplies, local publication advertisement, & etc. (\$250.00/year X 3 years) (total estimated amount \$750.00)	\$750.00
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$97,321.00

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

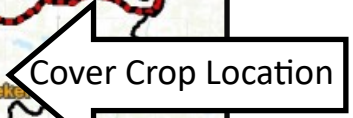
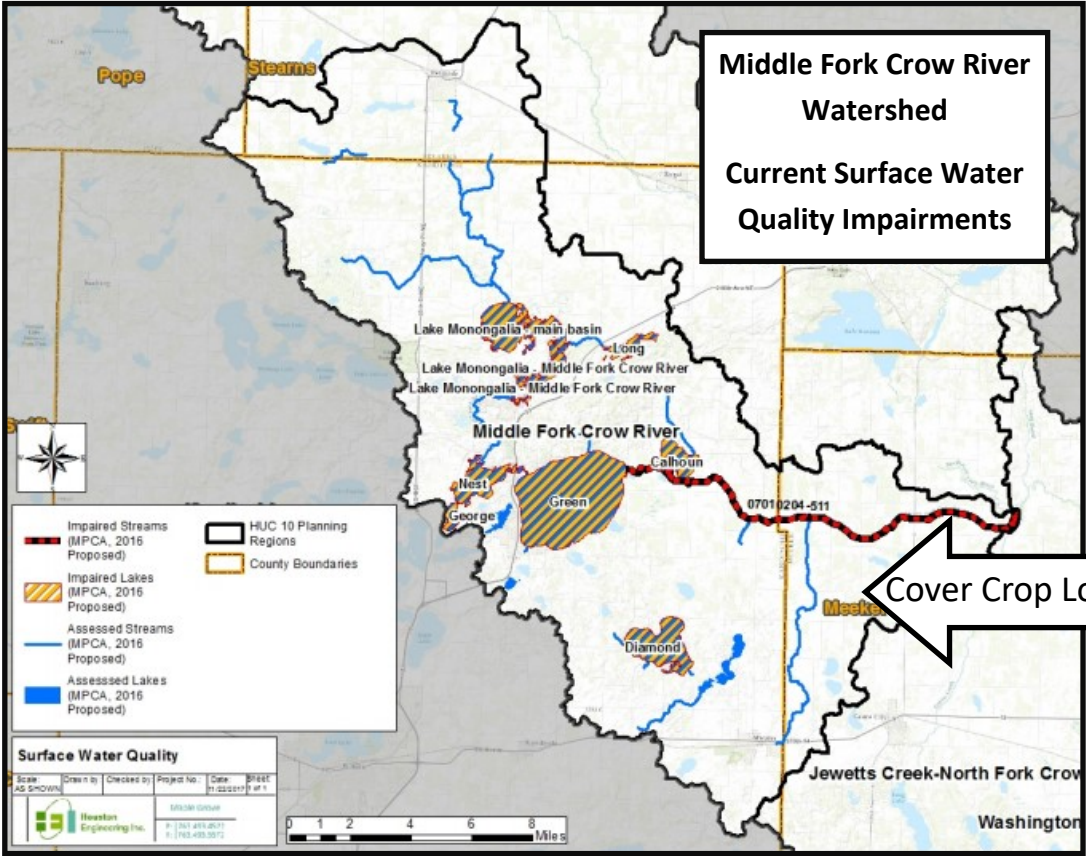
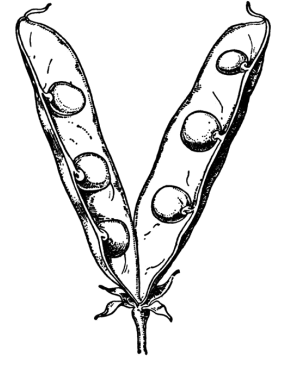
SOURCE OF FUNDS	AMOUNT	Status
Other Non-State \$ To Be Applied To Project During Project Period: N/A	N/A	
Other State \$ To Be Applied To Project During Project Period: N/A	N/A	
In-kind Services To Be Applied To Project During Project Period: Aministrative costs (5% of total request) (administrative total estimated amount \$4,868.55); Travel (500miles/year @ 54.4cents/mile X 3 years) (milage total estimated amount \$816.00); food cost for events (\$300/event X 3) (food total estimated amount \$900.00); food costs for local cohort meetings (\$30/meeting X 6) (food total estimated amount \$180.00); video editing (30 min video at \$140/min) (video editing total estimated amount \$4,200.00); regenerative farmer wages for project development (40 hrs per year @ \$21.50/hr X 3 years) (farmer project development total estimated amount \$2,580.00); farmer wages for cover crop project implementation (40 hrs per year @ \$23.50/hr X 3 years) (farmer project implementation total estimated amount \$2,820.00); (In-Kind total estimate amount \$15,548.55)	\$15,548.55	Secured
Past and Current ENRTF Appropriation: N/A	N/A	
Other Funding History: FY2005 - FY2018 Federal, State, and Local, Public and Private grants including, Minnesota Water Conservation Partners, Clean Water Partnership, Clean Water Fund, BWSR Legacy.	\$ 2,700,000	Contracts up to date, and grants awarded spent appropriately.



Crow River Enters Mississippi in Dayton, MN



The Mississippi is a source of Drinking Water for Minneapolis



25%

Sediment
25% Reduction
Existing Loads

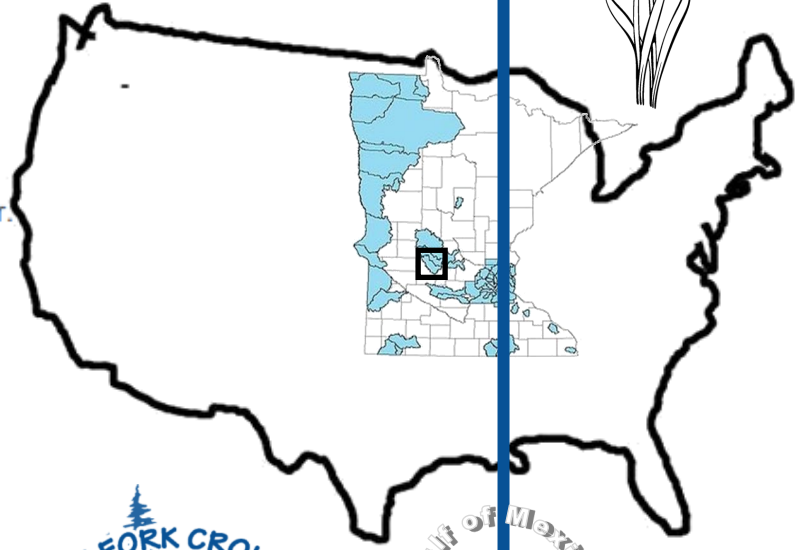
Goal Source: Sediment Reduction Strategy
Existing Load at Planning Region Outlet: 20,245 tons/yr.
Target Load Reduction at Outlet: 5,061 tons/yr.
Estimated # of Structural BMPs to Meet Goal*: 372
Estimated Annualized Cost: \$323,500



12%

Total Phosphorus
12% Reduction
Existing Loads

Goal Source: Nutrient Reduction Strategy
Existing Load at Planning Region Outlet: 3,608 lbs./yr.
Target Load Reduction at Outlet: 433 lbs./yr.
Estimated # of Structural BMPs to Meet Goal*: 1,227
Estimated Annualized Cost: \$2,804,800



Middle Fork Crow River Watershed District

Organization Description

Background

The Middle Fork Crow River Watershed District is a special purpose unit of government that was established by citizen's petition in April 2005. The District exists for the protection and preservation of water quality in the Middle Fork Crow River Watershed. The District consists of a board of five Managers from three of the four counties in the watershed. Because only a very small portion of the watershed lies in Pope County, there is no board member from that county. Board members are appointed by County Commissioners and serve three year terms.

Location

The Middle Fork Crow River Watershed drains a 271 square mile area. The river begins in Stearns County in the Belgrade area and flows southward through northeast Kandiyohi County. As the river flows south it passes through the City of New London and enters Green Lake in Spicer. After the river outlets from Green Lake, it flows eastward. Water runoff from the City of Atwater and Diamond Lake enter the Middle Fork Crow River just before it crosses the Meeker County line. The river joins the North Fork Crow River just east of Manannah. The North Fork Crow River eventually enters the Mississippi near Dayton.

Funding

Base funding for the Middle Fork Crow River Watershed District (MFCRWD) comes from an annual levy of \$250,000 assessed among each property owners in the watershed. We also actively pursue grant opportunities to expand our efforts without increasing costs to the property owners in the District. Since 2005, the MFCRWD has secured \$2,639,070 in grant funds with a \$1,494,199 match from the District.

Project Manager Qualifications

Margaret Johnson

Experience

Administrator, Middle Fork Crow River Watershed District, Spicer, MN 2012 - 2018

Hydrologic Technician, Middle Fork Crow River Watershed District, Spicer, MN

Resource Technician, Heron Lake Watershed District, Heron Lake, MN

Graduate Assistant, Bemidji State University, Bemidji, MN

Master of Science, Environmental Studies, Policy and Planning, Bemidji State University

Advanced training in Geographic Information Systems

Bachelor of Science, Environmental Science, Policy and Management, University of Minnesota Twin Cities

International Field Seminar in China: Land Use and Water Issues

Minor in Geographic Information Systems

High School Diploma, New York Mills High School

Current Grants Administered

- Watershed Pollutant Load Monitoring Network:
- Diamond Lake TMDL Implementation Projects grant
- Middle Fork Crow Watershed Restoration Loan Program
- Developed Partners Expanded Resources Accomplishment
- Integrated Water Quality Analysis for Targeted Priority Practices
- Intensive Watershed Monitoring: Surface Water Assessment
- Watershed Restoration and Protection Strategy