Environment and Natural Resources Trust Fund
2014 Request for Proposals (RFP)

Project Title: **ENRTF ID:** **176-F**

Middle Fork Crow River Sediment and Nutrient Reduction

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

Total Project Budget: $ 320,800

Proposed Project Time Period for the Funding Requested: 3 Years, July 2014 - June 2017

Summary:

The Middle Fork Crow River has been established as a leading sediment and nutrient exporter. Restoring its streambanks will lower concentrations of pollutants and improve the health of state waters.

Name: Margaret Johnson

Sponsoring Organization: Middle Fork Crow River Watershed District

Address: PO 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, Meeker

City / Township:

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

PROJECT TITLE: Middle Fork Crow River Sediment and Nutrient Reduction

I. PROJECT STATEMENT

1) The Middle Fork Crow River Watershed is over 275 square miles in area, within portions of Pope, Stearns, Kandiyohi, and Meeker counties in central Minnesota. A majority of the watershed lies within Kandiyohi County, which features many water recreation destinations. The county slogan, "Where the Lakes Begin" emphasizes the importance of water resources for the area's ecosystems and overall economic well-being. A significant agricultural land-use presence in the watershed (51.4% of total land use) combined with newly added impervious surfaces the cities of Belgrade, New London, Spicer, and Atwater have dramatically increased sediment and nutrient loading in the watershed's lakes and streams. Monitoring data continues to identify the need for innovative solutions to control sediment and nutrient loading. New techniques in stabilizing streambanks using materials like toe-wood instead of riprap, and the reconnection of channelized streams with its natural floodplain will offer much needed protection from peak flows and reduce concentrations of contaminants.
2) Highly competitive Clean Water Partnership requests have left the Middle Fork Crow River Watershed District (MFCRWD) in need of additional sources of funding to address these important water quality issues. Lands used for project implementation will reside directly adjacent to state waters and will be used for the sole purpose of improving Minnesota's water quality.
   Project Outcome 1: Monitor District lakes and streams for sediment and nutrients
   Project Outcome 2: Implement projects to protect and enhance water quality
   Project Outcome 3: Report water project success and engage citizens
3) Goals to improve water quality will be achieved by reducing peak flows, reducing pollutant concentrations, and repairing natural protection areas by
   - Identifying trends and emerging issues through sediment and nutrient monitoring
   - Stabilizing damaged streambanks using innovative bioengineering methods
   - Engaging watershed citizens through educational materials and a paddling event

   Increased habitat for wildlife and improved recreational suitability will foster a key relationship between watershed residents and water resources. Improving water resources and maintaining healthy relationships with residents the resource will foster a long lasting, conservation-based ethic that is important for Minnesota communities. To measure this project's success quantitatively, lakes and streams within the watershed will be monitored for sediment and nutrient loading.

II. DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: Monitoring and reporting of the Middle Fork Crow River Watershed **Budget: $10,800**

Lake and stream sample collection will be performed by the MFCRWD Watershed Technician, Hydrologic Technician, and MFCRWD trained volunteer monitoring staff. Samples will be sent to certified labs and measured for nutrients and sediment concentration. Results of the findings will be uploaded to publicly accessible databases and MFCRWD website (http://www.mfcrow.org/). In addition, two physical reports will be sent to over 6,500 residents in the watershed, and District partners including, Legislative-Citizen Commission on Minnesota Resources, Board of Water and Soil Resources, Minnesota Department of Natural Resources, Environmental Protection Agency, Minnesota Department of Agriculture, Minnesota Pollution Control Agency, University of Minnesota Extension, Prairie Woods Environmental Learning Center, United States Fish and Wildlife Services, Pope, Stearns, Kandiyohi, and Meeker County Natural Resource Conservation Services, Pope, Stearns, Kandiyohi, and Meeker County Soil and Water Conservation District, and local legislators and community groups.

Outcome	Completion Date
1. Monitor lakes and streams within the MFCRWD prior to project implementation and after for total Kjeldahl nitrogen, total phosphorus, chlorophyll-A, and total suspended solids.	11/1/2016
2. Measure and report water quality data/project success to publically accessible servers and maintain District website for additional web access to project results.	3/1/2017
3. Publish and distribute findings before and after implementation in a report to over 6,500 watershed residents, agency personnel, and legislators.	5/1/2017

Activity 2: Stabilize 2.4 acres of streambank and 100 feet of shoreline using innovative bioengineering methods **Budget: $310,000**

Streambank restorations will protect public waters by protecting sensitive and unprotected areas. The implementation of these projects will reduce sediment and nutrient loading in public waters and increase wildlife and recreational suitability of state waters. In addition, citizens will be connected with the resource through an annual canoe paddling event on the Middle Fork Crow River.

Outcome	Completion Date
1. Conduct site visits and create design work for streambank restorations	10/1/2015
2. Stabilize 2.4 acres of streambank utilizing innovative bioengineering methods to reduce erosion, loading of sediment and nutrients, and increase habitat for wildlife.	12/1/2016
3. Organize and implement an annual canoe-paddling event for public appreciation of water resources in the MFCRWD, showcasing each project location.	12/1/2016

III. PROJECT STRATEGY

A. Project Team/Partners

Water chemistry sample collection will be conducted by Vanessa Glieden Henjum, MFCRWD Watershed Technician, Mike Behan, MFCRWD Hydrologic Technician, and 14 MFCRWD volunteers. Reporting before and project implementation will also be conducted by MFCRWD Technicians. Designs for the projects will be completed by Professional Engineer and Certified Floodplain Manager, Chris Meehan of Wenck; Engineers, Scientists, Business Professionals from the Minneapolis/St. Paul area. Meeker County's Professional Engineer, Ron Mortensen will be assisting in project design and implementation. Margaret Johnson, MFCRWD Administrator will receive the funds and administer the grant.

B. Timeline Requirements

MFCRWD project implementation, monitoring, and civic engagement are used to carry out a ten-year Watershed Management Plan (2007-2017). The proposed project will not exceed 36 months, but is an important tool in carrying out the ten-year plan. Monitoring efforts will optimistically continue after grant implementation.

C. Long-Term Strategy and Future Funding Needs

The long term strategy requires the continued monitoring of District waters, installation of BMPs for water quality enhancement, and a robust education and civic engagement program. The broader effort to improve water quality outlined in the Watershed Management Plan (2007-2017) will require the continued funding of District programs to improve and protect natural water resources. Without funding from the ENRTF, the stabilization of 2.4 acres of streambank and outreach via a community event will not materialize, and the long-term regional and state water quality benefits of this project will not be achieved.

2014 Detailed Project Budget

Project Title: Middle Fork Crow River Sediment and Nutrient Reduction

IV. TOTAL ENRTF REQUEST BUDGET III years

BUDGET ITEM	AMOUNT
Contracts: Project construction costs: Design ($25,000), Construction and Materials ($255,000), Stabilization ($11,000), Technical Assistance ($19,000), Total $310,000	$ 310,000
Additional Budget Items: Laboratory Analysis of water samples for sediment and nutrients (180 samples * $60/sample = $10,800)	$ 10,800
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND $ REQUEST =	$ 320,800

V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
Other Non-State $ Being Applied to Project During Project Period: Landowner match ($80,200), MFCRWD will pay for annual reports with project updates to watershed residents, agency personnel, and legislators ($4,000) Total $84,200	$ 84,200	*Pending*
In-kind Services During Project Period: MFCRWD Personnel: Administrator ($25,000), Watershed Technician ($11,000), Hydrologic Technician ($10,500), Volunteer Monitoring Staff ($8,750), Travel to sites ($4,500) Total $59750	$ 59,750	*Secured*
Funding History: From 2007 through 2014, the MFCRWD has secured $1,299,500 in grant funds, matched with $1,308,686 in MFCRWD funds to implement 5 streambank restorations, 5 raingardens, 1 feedlot upgrade, 1 rock-lined channel, 26 shoreline restorations, 2 buffer strips, and 5 stormwater retrofits.	$ 2,608,186	Secured

Environment and Natural Resources Trust Fund
2014 Proposed Acquisition/Restoration List

INSTRUCTIONS:
1. Fill in "Project Title", "Project Manager Name", and "2014 ENRTF $ Request" below.
2. For each individual acquisition or restoration parcel that is being considered as possible/proposed under this proposal, please indicate a parcel name, geographic coordinates (latitude/longitude), county, estimated cost, ecological significance, activity description, # of acres, # of shoreline miles (if applicable), type of landowner, and proposed final holder of any fee title or conservation easement. One row per individual land parcel. Add or delete rows as necessary.
3. Use the "Notes" section at the bottom of the page to provide any additional information pertaining to the acquisition list. If there is any requested information you are unable to provide for any of the parcels, please provide an explanation here.
4. Delete this row containing these instructions and any unused rows before submission.
5. Document will be printed on letter size paper - landscape orientation - let rows expand to multiple lines to fit in applicable information.

Columns
***#:** Number each parcel 1 through the total number of parcels.*
***Acquisition or Restoration Parcel Name:** Provide a working title or name used to identify each parcel/restoration area.*
***Geographic Coordinates:** Provide latitude and longitude coordinates for the location of the parcel - preferably the center of the parcel (centorid). Coordinates should be in the format: [Degrees]° [Minutes]' [Seconds]" [Hemisphere]*
***County:** County in which the parcel is located.*
***Estimated Cost:** Provide an estimated cost pertaining to each parcel.*
***Ecological Significance:** Provide a description of the type of ecosystem that exists on a parcel (e.g., prairie, forest, wetland, savanna) and any ecological significance particular to the parcel.*
***Activity Description:** Provide a description of the activity or activities to occur on the parcel (e.g., fee title acquisition, conservation easement acquisition, site preparation, removal of woody vegetation). For conservation easements indicate whether the easement would be donated or purchased.*
***# of Acres:** Indicate the size of the parcel to be acquired or restored in acres.*
***# of Shoreline Miles (if applicable):** If applicable, indicate the number of shoreline miles being impacted.*
***Type of Landowner:** Indicate the type of current landowner (e.g., private individual/trust, non-profit organization, for-profit entity)*
***Proposed Fee Title or Easement Holder (if applicable):** For land acquisition, indicate the organization or entity that will hold title of lands once acquired.*

Project Title: Middle Fork Crow River Sediment and Nutrient Reductior
Project Manager Name: Margaret Johnson
ENRTF $ Request: $310,000

#	Acquisition or Restoration Parcel Name	Geographic Coordinates Format: [Deg.]° [Min.]' [Sec.]" [Hemis.]		County	Estimated Cost	Ecological Significance	Activity Description	# of Acres	# of Shoreline Miles	Type of Landowner	Proposed Fee Title or Easement Holder (if applicable)
		Latitude	Longitude								
1	27-021-0055	[45]°[16]'[38]"	[-94]°[57]'[21]"	Kandiyohi	$30,000	Riverbank/River	Riverbank Restoration	0.2	n/a	Private	n/a
2	27-660-0130	[45]°[16]'[1.3]"	[-94]°[57]'[7.9]"	Kandiyohi	$20,000	Shoreline on Nest Lake	Shoreline Restoration	0.2	0.017	Private	n/a
3	17-041-0000	[45]°[14][11.5]"	[-94]°[42]'[21]"	Meeker	$260,000	Riverbank/River	Riverbank Restoration	2.2	n/a	Private	n/a
4											
5											
6											
7											
8											
9											
10											

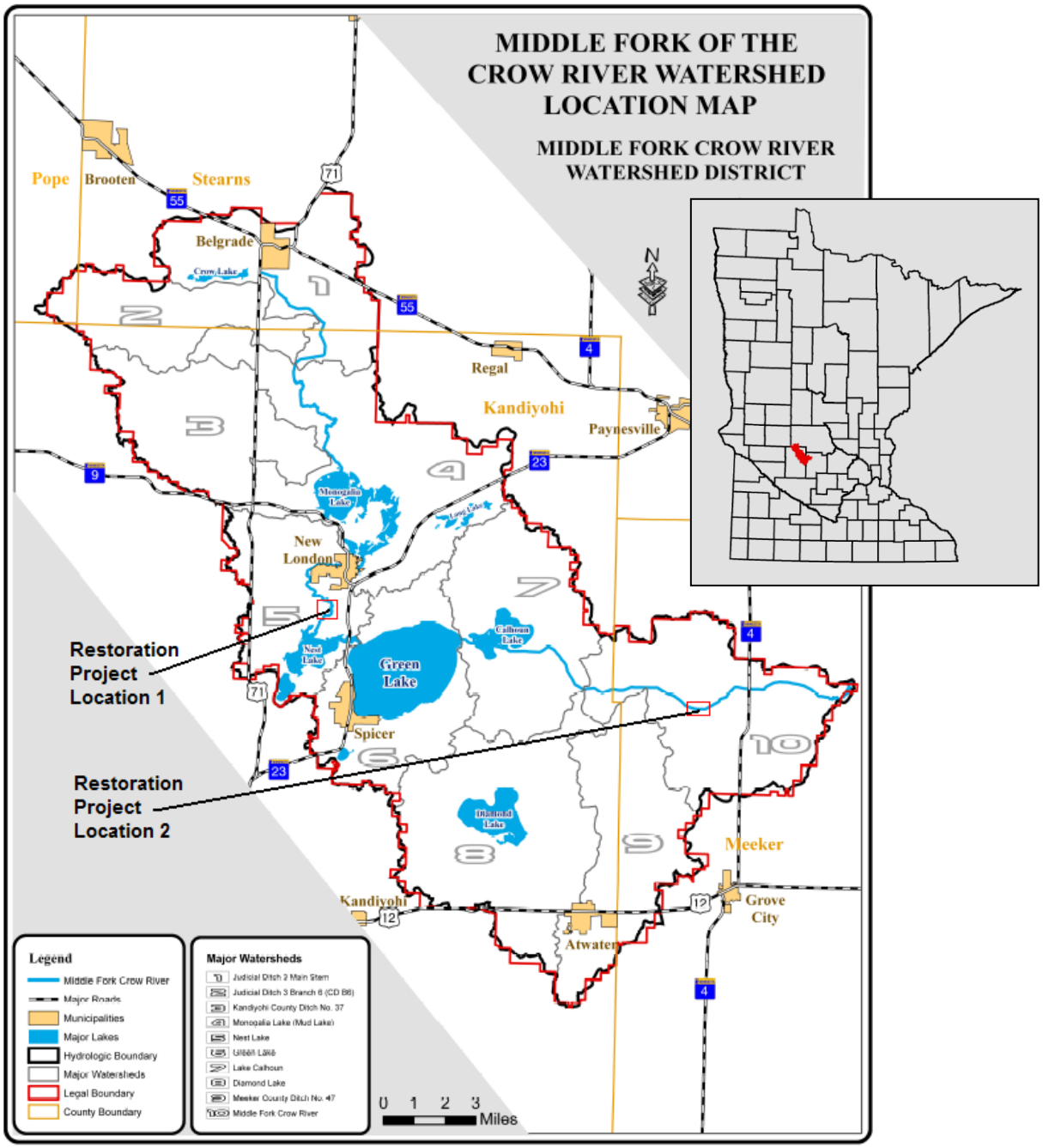
NOTES: Acreage in parcels described above are directly adjacent to state waters. River bank and shoreline will be restored to improve water quality.

Streambank Restoration Project 1:

Located on the Middle Fork Crow River, New London, Kandiyohi County, MN.

Streambank Restoration Project 2:

Located on the Middle Fork Crow River on County Road 25, north of Grove City, Meeker County, MN.



Middle Fork Crow River Watershed District

Project Manager Qualifications

Margaret Johnson

Master of Science, Environmental Studies, Policy and Planning, Bemidji State University (2011)
Advanced training in Geographic Information Systems
Bachelor of Science, Environmental Science, Policy and Management, University of Minnesota Twin Cities (2009)
International Field Seminar in China: Land Use and Water Issues
Minor in Geographic Information Systems
High School Diploma, New York Mills High School (2005)

Experience
Interim District Administrator, Middle Fork Crow River Watershed District, Spicer, MN
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

Current Grants Administered

- Integrated Watershed Management: Upper Mississippi North Fork Crow River Major Watershed Project
- Middle Fork Crow Watershed Restoration Enhancement Project (CWP Continued Grant)
- Green Lake Eurasian Watermilfoil/Stormwater Study (CWP grant)
- MFCRWD Shoreland and Stream Bank Restoration/Stabilization Program (BWSR Legacy Grant)
- Green Lake Stormwater Quality Improvement Project (BWSR Legacy Grant)
- Shoreline Enhancement and Stabilization in the Middle For Crow River Watershed (DNR Block Grant)
- Department of Natural Resources AIS Awareness Grant
- Department of Natural Resources Watercraft Inspection Grant

Organization Description

Background

The Middle Fork Crow River Watershed District is a special purpose unit of government that was established 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 275 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 owner 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 $1,299,500 in grant funds with a $1,308,686 match from the District.