

**Environment and Natural Resources Trust Fund
2018 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 211-G

Improving Hydrologic Resilience in Rural Dakota County

Category: G. Land Acquisition, Habitat and Recreation

Total Project Budget: \$ 1,960,000

Proposed Project Time Period for the Funding Requested: 3 years, July 2018 to June 2021

Summary:

Improving hydrologic resilience and wildlife habitat in rural Dakota County through priority site selection, design, easement acquisition, water retention, and wetland and upland natural resource restoration.

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Sponsoring Organization: Dakota County

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Web Address www.co.dakota.mn.us

Location

Region: Metro

County Name: Dakota

City / Township:

Alternate Text for Visual:

Dakota County map showing four key sub-watersheds and several potential wetland restoration sites throughout the southern portion of the County where improved hydrology is needed.

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



PROJECT TITLE: Improving Hydrologic Resilience in Rural Dakota County

I. PROJECT STATEMENT

The long history of drained, dredged and filled wetlands, row crop agriculture, and increasing intensity of rain events has significantly reduced the hydrologic resilience of our agricultural landscapes. These changes have resulted in impaired surface water quality, diminished groundwater infiltration and quality, loss of critical wildlife habitat, and damage to private property and public infrastructure.

Dakota County is well-positioned to improve hydrologic resiliency and address these well-documented issues by implementing wetland restoration and water retention projects on agricultural lands. There are an estimated 35,000 acres of cultivated hydric soils in the County and preliminary analysis identified 24 single-owner properties, greater than 100 acres, not divided by roads that collectively total an estimated 6,300 acres of potentially restorable wetlands. In addition, the Dakota County Soil and Water Conservation District (SWCD) completed a detailed water quality assessment for the 18,500-acre Trout Brook sub-watershed (designated trout stream) and received funding to complete assessments of the Pine Creek (13,200 acres), Upper Mainstem of the Vermillion River (12,800 acres) and Lake Byllesby (7,700 acres) sub-watersheds in the County. The County was very successful in ensuring nearly 100 percent vegetative buffer compliance along all rivers and streams in the County prior to the Governor’s Buffer Initiative.

Through additional hydrologic assessments and analysis and landowner outreach and site visits, preliminary project locations will be identified. Project evaluation criteria will be used to prioritize projects. Cost/benefit modeling will be completed for chosen sites to determine project size and affected landowners. Appraisals will be completed to acquire easements on cultivated and other lands required for the projects. Design, engineering and acquisition, due diligence will be finalized once landowners agree to sell an easement. Implementation, such as drain tile removal/blocking, plugging ditches, grading, and seeding will take place once the easements are acquired. Overall goals will be to: filter and trap sediment, nutrients, pesticides, and bacteria; reduce soil erosion and downstream flooding; recharge groundwater; restore soil organic matter and increase carbon sequestration; and increase wildlife habitat and habitat connections outside of established Metro Conservation Corridors.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1: Hydrologic Site Modeling, Design and Engineering

Budget: \$45,000

Outcome	Completion Date
1. Conduct hydrologic modeling for selected sites to determine costs and benefits	July 1, 2019
2. Complete preliminary and final hydrologic design and engineering requirements for selected sites	July 1, 2020



Activity 2: Easement Acquisition

Budget: \$1,200,000

Outcome	Completion Date
1. Project sites will be evaluated, prioritized and selected, using the following criteria: ranked wetland functions (water quality improvement, increased wildlife habitat, flood protection, nutrient filtration or groundwater recharge); number of affected landowners; adjacent land use; affected infrastructure; relative size and hydrologic position in the watershed; proximity to other wetlands, streams and protected areas; restoration feasibility and cost; equipment access and public visibility; size (overall and amount of surface water); volume of water storage; and size and type of upland buffers	Sept. 30, 2019
2. Natural resource management plans (NRMP) will be completed for each easement	June 30, 2020
3. An estimated 215 acres of easements will be acquired, which will allow excavation and other hydrologic changes to accomplish water quality and other benefits	June 30, 2020

Activity 3: Implementing Hydrologic and Habitat Improvements

Budget: \$715,000

Outcome	Completion Date
1. Grading and other required physical alteration of the easement areas will be completed	June 30, 2021
2. Upland and basin vegetation within easements will be restored	June 30, 2021

III. PROJECT STRATEGY

A. Project Team/Partners

The Dakota County Environmental Resources Department will lead the project, with a project team consisting of Land Conservation (Al Singer and Lisa West) and Water Resource staff (Brad Becker and Mark Ryan). The County has acquired 106 agricultural easements protecting 7,758 acres and has the experience and capacity to acquire, manage and monitor easements. Water Resources staff includes engineers and other specialists who are completing a 75-acre wetland bank and a number of other water quality projects throughout the County. The SWCD (Brian Watson and Curt Coudron) is the County’s primary partner, with long-standing relationships with agricultural landowners, wetland delineation, and assessment, design and implementation of a wide variety of water quality projects. Great River Greening (GRG) (Steve Hockett and Wiley Buck) will assist in planning and implementing upland and wetland vegetation as part of their recent expansion into restoration of agricultural landscapes. Depending on project location, staff from the Vermillion River Watershed Joint Powers Organization and the Cannon River Partnership would also be involved. The County would be the principle recipient of Environment and Natural Resources Trust Fund (ENRTF) funds and would provide both cash and in-kind match. The SWCD and GRG would be contractors to the County and be reimbursed with ENRTF funds.

B. Project Impact and Long-Term Strategy

Strategically addressing the hydrologic changes and resulting loss of resilience in agricultural areas, based on detailed assessments, is critical to addressing a number of environmental issues, including surface and ground water and providing critical pollinator and other wildlife habitat in agricultural areas. Experience gained by staff and partners will be instrumental in application to future projects. Having baseline information and on-the-ground examples will be invaluable in illustrating the potential benefits for consideration by other landowners. A key goal of this project is to develop modeling and criteria that could be applied to other agricultural areas throughout the County and the state.

C. Timeline Requirements

June 30, 2021

2018 Detailed Project Budget

Project Title: Improving Hydrologic Resilience in Rural Dakota County

IV. TOTAL ENRTF REQUEST BUDGET [three years]

<u>BUDGET ITEM</u>	<u>AMOUNT</u>
Personnel: None	\$ -
Professional/Technical/Service Contracts: Dakota County SWCD: Restoration/Water Retention Project Management: \$64,000 Great River Greening: NRMPs/Restoration Project Management/Volunteer Events: \$64,000 Engineering Firms (RFP): \$45,000 Construction Companies (RFP): \$173,000 Appraisals (RFQ): \$30,000	\$376,000
Equipment/Tools/Supplies: Native grass and forb seed for wetlands and uplands	\$384,000
Acquisition (Fee Title or Permanent Easements): Estimated 215 acres with easements held by Dakota County	\$1,200,000
Travel: None	\$ -
Additional Budget Items: None	\$ -
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 1,960,000

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>Dakota County: approved by County Board Resolution</i> <i>Federal: NRCS and or CREP</i> <i>Vermillion River Joint Powers Organization: future CIP budget</i> <i>Landowner Donation</i>	\$490,000 \$200,000 \$150,000 \$100,000	Secured Pending Pending Pending
Other State \$ To Be Applied To Project During Project Period: None	\$ -	NA
In-kind Services To Be Applied To Project During Project Period: <i>Dakota County Staff (Land Conservation, Water resources, Environmental Management, Survey Office, GIS Office, County Attorney's Office, Administration, Clerical Services and Financial Services)</i>	\$270,000	Secured
Past and Current ENRTF Appropriation: None	\$ -	NA
Other Funding History: County Land Conservation budget (in-kind staff and contracted services with SWCD) to conduct additional land, parcel and hydrological analysis; develop project evaluation criteria; and conduct landowner outreach to determine willing sellers.	\$80,000	Secured

**Environment and Natural Resources Trust Fund
2018 Proposed Acquisition/Restoration List**

Project Title: Improving Hydrologic Resilience in Rural Dakota County

Project Manager Name: Lisa West

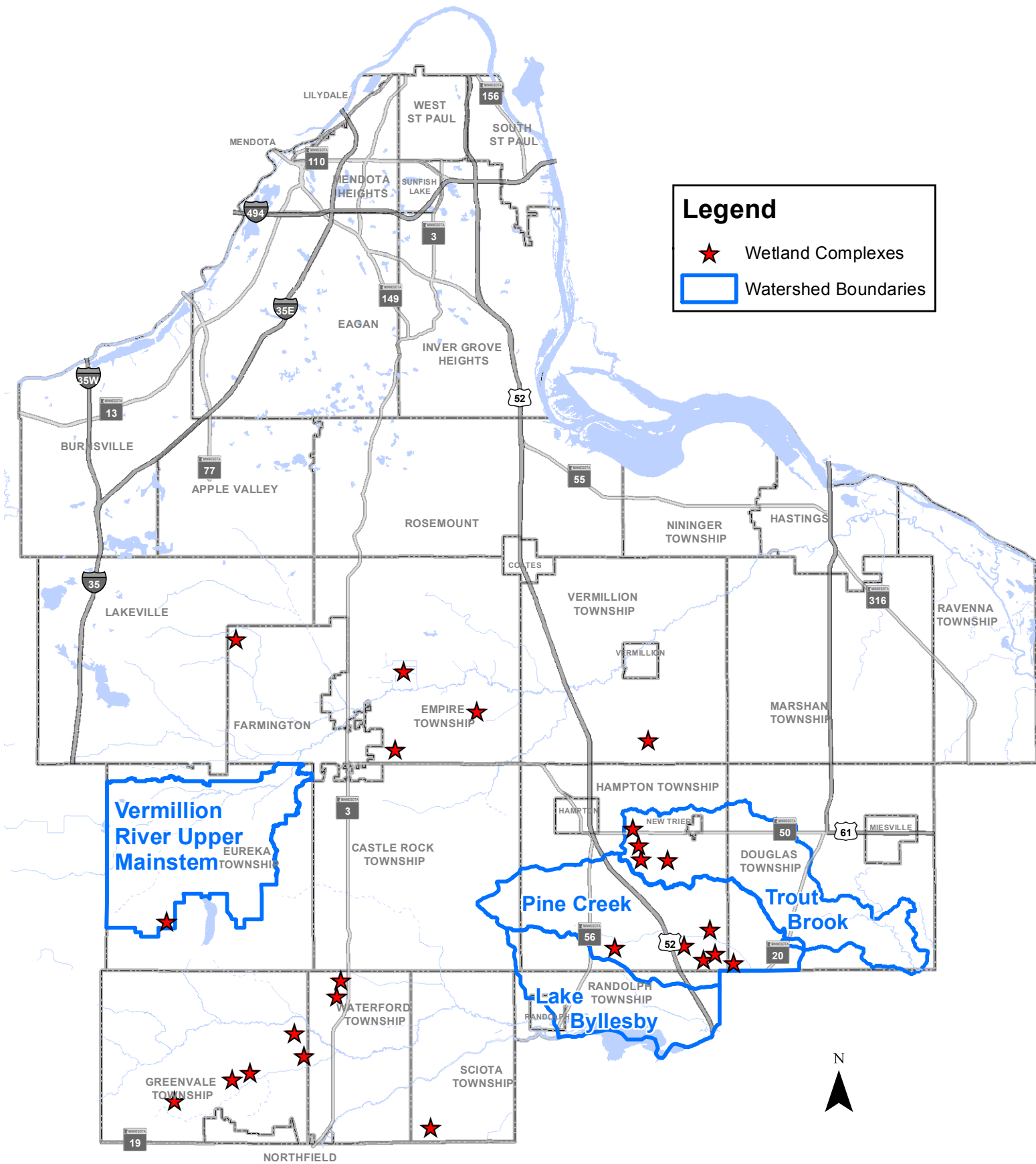
Organization: Dakota County

ENRTF \$ Request: \$1,960,000

#	Acquisition or Restoration Parcel Name	Geographic Coordinates Format: [Deg.]° [Min.]' [Sec.]" [Hemis.]		Estimated Cost	County	Ecological Significance	Activity Description	# of Acres	# of Shoreline Miles	Type of Landowner	Proposed Fee Title or Easement Holder (if applicable)
		Latitude	Longitude								
1	Chub Creek	44°30'19"N	-93°30'19"W	\$440,000	Dakota	Cultivated hydric soils	Acquisition and/or Restoration	50	NA	Private	Dakota County
2	Pine Creek	44°33'34"N	-92°57'21"W	\$220,000	Dakota	Designated trout stream; cultivated hydric soils	Acquisition and/or Restoration	25	NA	Private	Dakota County
3	Trout Brook - Southern Mainstem	44°34'12"N	-92°49'28"W	\$95,000	Dakota	Designated trout stream	Acquisition and/or Restoration	10	NA	Private	Dakota County
4	Trout Brook - Upper Reaches	44°36'3"N	-92°57'54"W	\$440,000	Dakota	Designated trout stream	Acquisition and/or Restoration	50	NA	Private	Dakota County
5	Vermillion River - Central	44°39'50"N	-93°4'29"W	\$440,000	Dakota	Designated trout stream; cultivated hydric soils	Acquisition and/or Restoration	50	NA	Private	Dakota County
6	Vermillion River - Upper Mainstem	44°34'6"N	-93°14'49"W	\$280,000	Dakota	Designated trout stream; cultivated hydric soils	Acquisition and/or Restoration	30	NA	Private	Dakota County

NOTES: The sub-watershed areas are noted in the original submittal, with specific projects to be added under each, as appropriate, and as individual project work commences. A \$45,000 portion of the total grant request is allocated to hydrologic modeling, design and engineering; and is not included in the estimated acquisition and restoration costs.

Restoring Hydrologic Resilience in Rural Dakota County



Project Manager Qualifications for Lisa West

2005 to Present - Dakota County Senior Project Manager

- Administer, coordinate and lead current land conservation efforts under Land Conservation Manager, including expending or committing nearly \$20M of County funds to permanently protect more than 11,000 acres, with a value of \$100 million as an outcome of two successive LCMR-funded projects in 1999 and 2001.
- Lead easement and fee title acquisitions, including project management and coordination, appraisal review, landowner negotiations, County Board approval, document preparation and review, and project finalization
- Prepare cost estimates and budget use of County, state and past federal grant funding
- Lead and coordinate multi-department/division/agency staff groups to complete projects and implement programs
- State Grant Project Manager – multi-project grant writing, submittal, amendments, administration and reporting, including: ENRTF ML 2011 and 2013; and LSOHC ML 2012, 2013 and 2014.
- Federal Grant Administrator – multi-project grant writing, submittals, and administration for Federal Farm and Ranch Lands Protection Program and Agricultural Conservation Easement Program

1999 to 2005 - Dakota County Senior Planner

- Completed County Environment and Natural Resource Chapter of Comprehensive Plan
- Completed Vermillion River Watershed Plan
- Completed County Watershed Governance Study Report
- Completed two County Groundwater Protection Plans
- Prepared approved joint powers agreement to Cannon River Joint Powers Board
- Prepared successful plan and general budget for Cannon River Joint Powers Board for State funding
- Prepared successful Minnesota Board of Government Innovation and Cooperation (BGIC) grant application for Vermillion River Watershed governance study
- Managed innovation grant study progress and report preparation; prepared and submitted grant reports to BGIC Facilitated County Aggregate Task Force; completed and presented final report
- Former County Feedlot Pollution Control Officer
- Chair of Cannon River Joint Powers Board Technical Committee and Joint Powers Board liaison
- Established governing and financing structures for Vermillion River Watershed Joint Powers Organization

Organization Description

Dakota County is Local Government Unit partially bordered by the Minnesota, Mississippi and Cannon Rivers, with almost the entire Vermillion River located within in its boundaries. Nearly 410,000 people live in this southern metropolitan area county that is comprised of 14 fully developed and developing suburbs; six small, rural towns; and 13 mostly rural townships.

The County adopted a comprehensive land conservation vision that includes: the regional park system; a 200-mile greenway system that integrates water quality, wildlife habitat and recreation; natural area protection throughout the County, with a focus on rivers, streams and undeveloped lakeshore; and farmland protection. The County's vision is supported by: its Farmland and Natural Area Protection Plan, partially funded by a LCMR grant; its Vermillion River Corridor Plan, partially funded by a LCCMR grant; and the ongoing land conservation programs that began implementing these plans in 2002.

