Environment and Natural Resources Trust Fund
2009 Phase 2 Request for Proposals (RFP)

LCCMR ID: 064-B2

Project Title: Springbrook Coulee Protection Project

Total Project Budget: $ $826,300

Proposed Project Time Period for the Funding Requested: 2 years

Other Non-State Funds: $ $162,100.00

Priority: A2. Conservation Reserve Program (CRP) Lands

First Name: Dan **Last Name:** Money

Sponsoring Organization: Two Rivers Watershed District

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Region:	County Name:	City / Township:
NW	Kittson	Springbrook Township

Summary: Construct dikes alongside 22,000 feet of natural channel; establish 188 acres riparian buffer/corridor to address water quality, erosion, overland flooding, and natural resources; enhance/protect 42 acres of wetland.

Main Proposal: 0908-2-015-proposal-2009_main_proposal_TRWD.doc

Project Budget: 0908-2-015-budget-2009_Project Budget.xls

Qualifications: 0908-2-015-qualifications-TRWD Project Manager Organization desc.doc

Map: 0908-2-015-maps-Site Map 2008.JPG

Letter of Resolution: 0908-2-015-resolution-TRWD Resolution 2008-01.doc

MAIN PROPOSAL

PROJECT TITLE: Springbrook Coulee Protection Project

I. PROJECT STATEMENT

Severe and repeated extreme runoff events have resulted in 8 Presidential disaster declarations from 1993 to 2006. The unnamed coulee, a DNR protected watercourse, has undergone repeated out of bank flows resulting in severe gully and sheet erosion, bank sloughing, overland flooding, degraded water quality, sedimentation, degradation of the channel and riparian areas, and damage to public infrastructure and ag land.

The Two River Watershed District, in consultation with the Minnesota DNR, Natural Resources Conservation Service, Springbrook Township, City of Karlstad, Kittson SWCD, and local landowners, has gone through the planning and engineering stages for a system of channel restoration, set back levees, side water inlets, and grass buffer strips to address the problems. The project design is consistent with the 10 year Overall Plan of the Two River Watershed District and the Kittson County Comprehensive Local Water Plan.

The project will address numerous water quality, natural resources and flood damage reduction issues, as listed below.

A. 2. **Land and habitat** will be addressed by the permanent establishment of 188 acres of riparian vegetative buffer alongside the watercourse. Some of this acreage is now in a 15 year ***CRP*** contract, and this project will provide a permanent easement.

B. 1. & B. 2. **Water Quality** will be addressed by protecting over 4 miles of stream with the grassed buffer and streambank protection measures. This will ***reduce sediment and nutrient loads*** entering the stream. The project will also provide ***flood control and reduced peak water flows*** through the construction of dikes set back 300' from the watercourse. These dikes will address overland flooding by preventing water from breaking out of the channel for up to a 10 year event. The unnamed watercourse outlets to the Red River of the North, which is on the MPCA's list of impaired waters.

B. 3. The project has been petitioned by landowners under **Minnesota Drainage Law** and will be constructed as a legal ditch system. The project will be a benefit for drainage, flood control, and natural resource enhancements, all within the auspices of the drainage code.

II. DESCRIPTION OF PROJECT RESULTS

Result 1: Set Back Dikes Budget: $245,600

Set back dikes, made of earthen fill, will be built along both sides of the watercourse at predetermined locations. The dikes will have a 6' top width and their height will depend on location from the channel and location within the watershed. They will be designed to provide flood protection to adjacent lands for up to a 10 year event.

1. 66,900 feet of set back dike constructed by 11/1/09

Result 2; Streambank Stability & Protection Budget: $64,300

The existing channel and streambank will be stabilized and protected by installation of geo fabric, rock rip rap, and vegetative measures. This will minimize and prevent future erosion and head cutting within the channel.

1. 3000 square yards of fabric installed by 11/1/10
2. 372 tons of rock drops to prevent head cutting installed by 11/1/10
3. 893 tons of rock rip rap to stabilize bank sloughing installed by 11/1/10
4. 0.3 acres of seeding along stream bank by 11/1/10

Result 3: Side Water Inlets Budget: $13,700

20 side water inlets will be placed at low points along the set back dikes to allow local drainage to pass through the dike and reach the channel. On the downstream end of each inlet, a flap gate will be installed. Near each inlet a breakout are will be installed. These breakout areas will be constructed to allow water to move back and

forth from the channel during events larger than a 10 year event. These areas will reduce maintenance needed after 10 year or greater event flow spill out over the dike system.

1. 500 linear feet of 18" culvert installed by 11/1/10

2. 20 steel flap gates installed by 11/1/10

3. 40 culvert end sections installed by 11/1/10

Result 4: Seeding Budget: $94100

188 acres of permanent vegetative riparian buffer will be established. A mixture of native grasses consisting of big bluestem, western wheatgrass, switch grass, slender wheatgrass, and garrison creeping foxtail will be seeded.

1. 188 acres seeded by 11/1/10

Result 5: Easement / Right of Way Budget: $162,100

270 acres of permanent easement will be purchased for the project.

Result 6: Wetlands Budget: $43,500

Approximately 77 acres of wetland will be affected by the project. Wetland delineation will be necessary to identify impacted wetlands and the project proposal will indicate acres of wetlands restored.

III. PROJECT STRATEGY AND TIMELINE

A. Project Partners

Two River Watershed District (project coordination), USDA – Natural Resources Conservation Service (planning and engineering), Kittson Soil & Water Conservation Service (conservation programs), Local Landowners

B. Project Impact

The estimated average annual flood damage reduction benefits as a result of the project are as follows: Crop land - $72,430; Farmstead - $12,200; Roads & Bridges - $10,750.

The long-term survival of each of the basin's primary wildlife communities—grassland, wetland, woodland, and riverine - is threatened by habitat loss, fragmentation, and degradation. Expanding, buffering, and connecting the wooded river corridors that remain intact in the basin is critical to wildlife conservation. Wildlife habitat is especially limited by a lack of grasslands and wetland habitat and by limited connectivity of riparian corridors for food, cover and traveling lanes. Only a few remnant grassland habitat blocks are present in the watershed, most wetlands have been drained, and CRP land is almost exclusively limited to a patchwork of riparian buffer strip areas adjacent to some of the channel bank system throughout the cropland fields. This project will restore travel corridors and provide connectivity.

C. Time

The project will be completed by December of 2010. The total project cost is estimated to be $1,082,500.

D. Long-Term Strategy (if applicable)

The project has been petitioned as a legal ditch system under Minnesota Statutes, 103E. However this is not a traditional ditch project, as it will contain a meandering natural channel, set back levies, and riparian buffer much wider than the required 1 rod buffer. As such, annual inspections will be completed on the system by the Two Rivers Watershed District and maintenance costs will be paid for by a ditch fund that will be established from taxes collected from land in the benefitted area of the ditch. Maintenance of all project facets will be the responsibility of the Two Rivers Watershed District. The project will be the last component in the Two Rivers Watershed District's plan to complete stabilization of an entire 300 square mile sub-watershed. In previous years the upstream Kittson County Ditch 10 and the downstream Judicial Ditch 10 systems have been stabilized from severe and repeated erosion.

Project Budget

Springbrook Coulee Protection Project - Two Rivers Watershed District

2 year funding period

IV. TOTAL PROJECT REQUEST BUDGET

Equipment/Tools: What? List general description of needs.	AMOUNT	% FTE
Personnel: Project Coordination & Administration - staff employed by TRWD - salary & benefits over 2 year time period	$ 144,300	100%
Contracts: *Construction Contractors- dikes, side inlets, streambank stabilization*	$ 350,500	
Wetland Identification & Mitigation - consultant services	$ 43,500	
Engineering - consultant hired by TRWD	$ 121,200	
Equipment/Tools:	$ -	
Acquisition (Including Easements):	$ -	
Restoration:	$ -	
Other:	$ -	
Contingencies	$ 188,500	50%
TOTAL PROJECT BUDGET REQUEST TO LCCMR	$ 848,000	

V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
Remaining $ From Previous Trust Fund Appropriation (if applicable):	$ -	
Other Non-State $ Being Leveraged During Project Period: Ditch Assessments through Minnesota Statute 103E	$ 162,100	*Pending*
Other State $ Being Spent During Project Period: Funding through the Minnesota Board of Water & Soil Resources, utilizing the Reinvest in Minnesota (RIM) program	$ 94,100	*Pending*
In-kind Services During Project Period:	$ -	
Past Spending: Project development funding for survey, design, engineering, coordination, and other development costs that has been undertaken by the Two Rivers Watershed District and other entities.	$ 450,000	Secured

PROJECT MANAGER QUALIFICATIONS & ORGANIZATIONAL DESCRIPTION
Springbrook Coulee Protection Project

PROJECT MANAGER:

Dan Money, Two River Watershed District Administrator will be designated as the Project Manager. Mr. Money holds a bachelor of science degree in aquatic biology from Bemidji State University. He has held the position of District Administrator since January 1, 1998. As such, he has been in charge of all District operations, including but not limited to bookkeeping, water quality monitoring program, stream flow monitoring program, ditch inspection, survey, project oversight including survey – staking – contractor oversight – bid letting – construction inspection, administering grants, administering District funding, supervision of employees, public relations, and coordination between government agencies, landowners, and other groups.

From 1991 to 1998, Money served as the Comprehensive Local Water Plan Coordinator and also the Wetland Conservation Act administrator under the employment of the Kittson Soil & Water Conservation District. As such, numerous grants were processed relative to those programs.

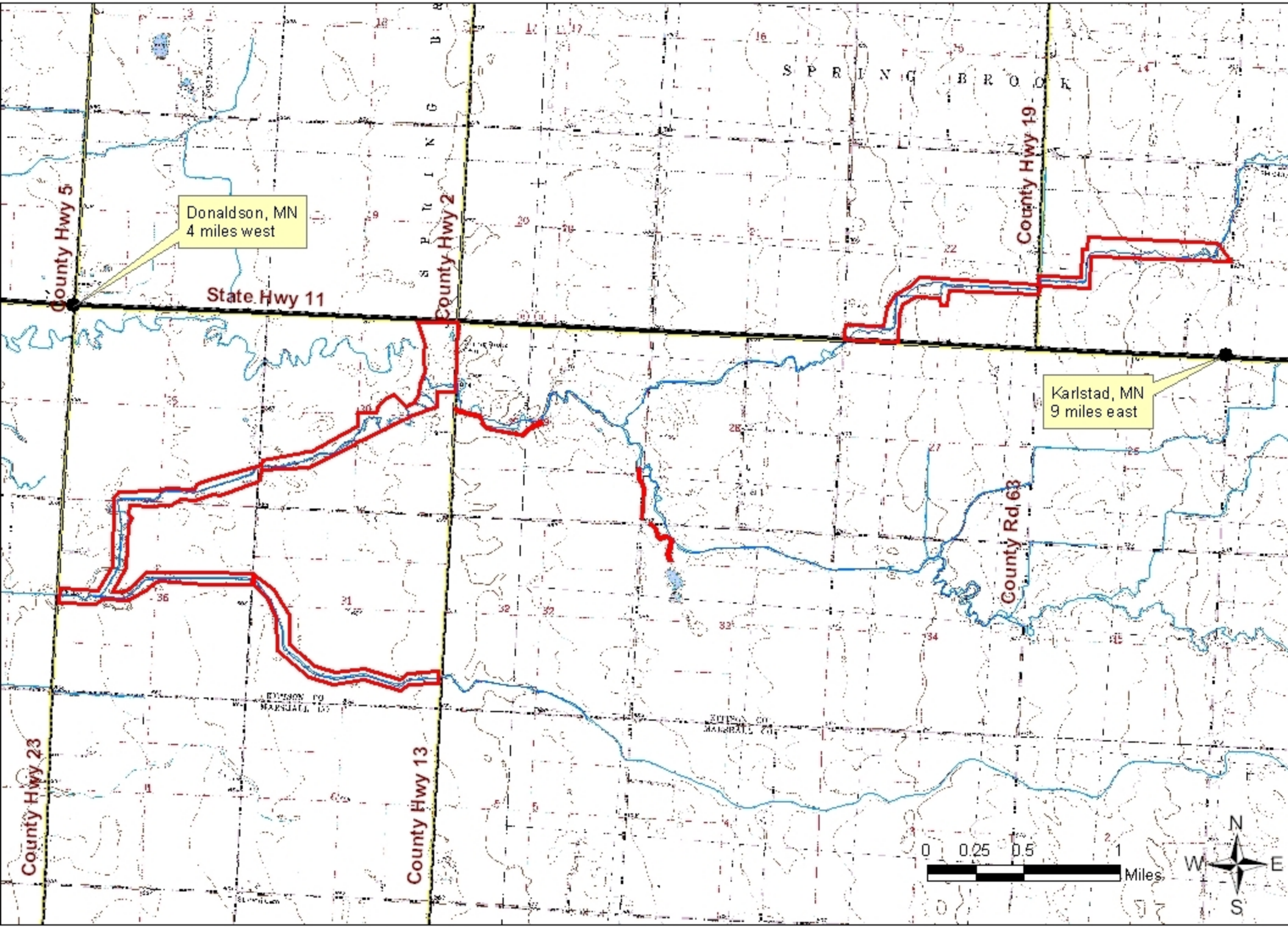
Mr. Money is also a current board member of the Red River Watershed Management Board, a 10 year member of the Hallock City Council, President of the Hallock Curling Club, and past President of the Two River Golf Club and Hallock Eagles Club.

ORGANIZATION DESCRIPTION:

The Two River Watershed District is a local unit of government (special district) that was organized on October 30, 1957 by order of the Minnesota Water Resources Board, under Minnesota Statute 103D. The stated mission of the District is "*to carry out all facets of the Minnesota Watershed Act as set forth in Minnesota Statute, Chapter 103D. It is the District's further mission to carry forth all activities and powers given under the Minnesota Drainage Code in Minnesota Statute, 103E. In carrying out its mission, the District will encourage the wise use of the water natural resources within its boundaries and promote the general health and welfare of the citizens residing there*".

The District has undertaken numerous projects in the areas of flood control, water quality, erosion and sedimentation, and water natural resources. The District in 2004 completed a planning document known as its 10 year Overall Plan. This document procured input from local citizens, federal agencies, state agencies, and local agencies.

The District's monitoring programs include water quality, stream flow, culvert inventory, and snow survey. The District operates 3 impoundments and manages 92 miles of legal ditch systems.



Springbrook Coulee Protection Project

Two Rivers Watershed District

stream_breaks

Dike Layout 2008

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