

**Environment and Natural Resources Trust Fund  
2012-2013 Request for Proposals (RFP)**

---

**Project Title:**

**ENRTF ID: 030-B**

Implementing Landscape Scale BMPs in South Central Minnesota

---

**Topic Area:** B. Forestry/Agriculture/Minerals

---

**Total Project Budget:** \$ 2,997,000

**Proposed Project Time Period for the Funding Requested:** 3 yrs, July 2013 - June 2016

**Other Non-State Funds:** \$ 25,000

**Summary:**

Accelerated establishment of BMPs with proven effectiveness in reducing sediment, nitrogen and/or phosphorous to targeted sites and implemented at a landscape scale, supported by training, outreach and agricultural landowner adoption.

---

**Name:** Linda Meschke

**Sponsoring Organization:** Rural Advantage

**Address:** 1243 Lake Ave, Ste 222  
Fairmont MN 56031

**Telephone Number:** (507) 238-5449

**Email** linda@ruraladvantage.org

**Web Address** www.ruraladvantage.org

---

**Location**

**Region:** SW, SE

**County Name:** msey, Red Lake, Redwood, Renville, Rice, Rock, Roseau, Scott, Sherburne, Sibley, St. Louis, Stearns, Steele, Stevens, Swift, Todd, Traverse, Wabasha, Wadena, Waseca, Washington, Watonman

**City / Township:**

---

<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"/> Employment	<input type="checkbox"/> TOTAL <input type="checkbox"/> %



# Environment and Natural Resources Trust Fund (ENRTF)

## 2012-2013 Main Proposal

**PROJECT TITLE: Implementing Landscape Scale BMP's in South Central Minnesota**

### I. PROJECT STATEMENT

Reduction of nonpoint source pollution [sediment, nitrogen & phosphorous] from agricultural lands in south central MN is a major challenge for natural resource managers working to meet TMDL goals. This innovative proposal directly gets at this issue by focusing **BMPs with proven effectiveness in reducing sediment, nitrogen and/or phosphorous to targeted sites and implemented at a landscape scale.** Most conservation practices are designed and installed with a single goal. What we are advocating is to look at the problem more comprehensively with the solution serving multiple goals. In addition to production goals, consideration is given to local Water Plan and SWCD goals, landscape position, state driven watershed goals for impaired waters mitigation, economic and societal goals. With this approach, BMP placement can be much more *effective* in reducing nonpoint source pollution from agricultural production systems over the long term. BMP's applied will be focused on water storage, perennial plantings and cover crop practices to reduce sediment loss; retain nitrogen and phosphorous in the soil profile for crop usage; retain water for plant availability and denitrification; and to build soil health overall. To support adoption, education and training, relative to these practices, to increase awareness, develop job skills, and understanding to farmers, agronomists and crop advisors, contractors and natural resource managers will be offered. Rural Advantage will be the Project Director and lead the training, outreach and material development components. Greater Blue Earth River Basin Alliance [GBERBA], and their member counties and SWCDs, will lead the BMP implementation working directly with the landowners, design practices, project tracking and reporting into E-link [BWSR project tracking program]. Conservation Marketplace [CM] will calculate the ecological uplift from the practices installed and enter them into their ecosystem services registry they are developing. Ecological tracking includes sediment, nitrogen and phosphorous reductions; pollinator, bio-control and wildlife habitat acres gained. These organizations have extensive experience in working with agricultural producers, managing and tracking of BMPs.

### II. DESCRIPTION OF PROJECT ACTIVITIES

#### Activity 1: Implement BMP's at a Landscape Scale

**Budget:** \$2,448,000

Local SWCD's, working with GBERBA and Rural Advantage will establish 1,700 acres of higher level BMP's [water storage and perennial plantings] on land currently in agricultural production. For **water storage** and **perennial plantings** we will provide an incentive or "ecological payment" that helps bridge the economic gap between corn production and perennial crops on marginal lands. Using information from the *University of MN Extension Farm Resource Guide 2012* for Southern MN this economic gap is currently between \$150 and \$200 per acre. Multiple ecological uplifts will occur from these actions including reduced pollution runoff and delivery to local rivers, streams, lakes and wetlands, increased habitat for wildlife and pollinators, increased carbon sequestration and reduced flow [water quantity] entering local water bodies. Payment would require conversion from annual crops to perennial crops at priority sites as identified in the local Water or SWCD Plan. In addition, riparian areas within 500 feet on either side of surface waters will be a priority area. Water storage practices would be focused toward "keeping the raindrop where it falls" and smaller scale storage areas that can be effective when integrated into existing agricultural systems. Examples of practices that will be eligible for enrollment include: 1] Buffers- drainage ditch, riparian, field edge, open tile intake, 2] Above the knick point of ephemeral streams, ravines, gullies, 3] Steeper slopes, 4] Erosive soil types [wind & water], 5] Wellhead protection, 6] Farmed wetland areas, 7] Bioenergy plantings, 8] Pollinator planting, 9] Fruit and nut crops, 10] Expired CRP. All of these practices have been demonstrated as a practical strategy for reducing soil loss and nutrient transport from agricultural land.

Activity 1: Outcomes	Completion Date
1. Establish 750 acres of high level BMP's	June 30, 2014

2. Establish 750 acres of high level BMP's	June 30, 2015
3. Establish 200 acres of high level BMP's	June 30, 2016

**Activity 2: Demonstrating Cover Crops in Corn and Soybean Systems** **Budget:** \$160,000

Cover crops have been proven effective at reducing soil, phosphorous and nitrogen losses from corn/soybean systems in the cornbelt region of the United States. Cover crops have been used successfully in MN in many different crop applications. Research in MN supports the effectiveness of cover crops by showing nitrogen reductions as high as 69% at research scales. In MN, we need to better understand how to manage cover crops in corn/soybean systems within our more northerly climate. This proposal would provide funding to establish 4,000 acres of cover crops during the project time frame to increase understanding and demonstrate cover crop use and effectiveness in building soil health and effectively reducing non point source pollution from intense agricultural systems.

Activity 2: Outcomes	Completion Date
1. Establish 1,750 acres of cover crops	June 30, 2014
2. Establish 1,750 acres of cover crops	June 30, 2015
3. Establish 500 acres of cover crops	June 30, 2016

**Activity 3: Training, Education, Tracking and Administration** **Budget:** \$389,000

Project partners will provide an accelerated educational program. A variety of educational methods will be utilized including classroom sessions, Walk-N-Talks in the field, development of materials, radio, video, and newspaper articles. Each participating SWCD will be allocated \$2,000 for educational materials and outreach within their county. Education and training activities will be led by University of MN Extension Educators, SWCD and County staff and others. CM will calculate the ecological uplift from each practice installed and enter into their ecosystem services registry. Rural Advantage will be the Project Director. GBERBA will coordinate with the SWCD's the implementation of all projects with landowners, including project contracts and tracking.

Activity 3: Outcomes	Completion Date
1. 12 Higher Level BMP Walk-N-Talks; 2 Higher level BMP Meetings [for public]; 2 Higher Level BMP Training Sessions; 1 Presentation to the broader public; All BMPs completed by 6.1.2014 entered into E-link & Ecosystem Registry	June 30, 2014
2. 12 Higher Level BMP Walk-N-Talks; 2 Higher Level BMP Meetings [for public]; 2 Higher Level BMP Training Sessions; 1 Presentation to the broader public; All BMPs completed by 6.1.2015 entered into E-link & Ecosystem Registry	June 30, 2015
3. 12 Higher Level BMP Walk-N-Talks; 2 Higher Level BMP Meetings [for public]; 2 Higher Level BMP Training Sessions; 1 Presentation to broader public; All BMPs completed entered into E-link & Ecosystem Registry	June 30, 2016

**III. PROJECT STRATEGY**

**A. Project Team/Partners:** Rural Advantage: Linda Meschke, President; UMN Extension/ RA: Jill Sackett, Conservation Agronomist; UMN Extension- Gary Wyatt, Natural Resource Management; Conservation Marketplace: Shannon Fisher; GBERBA Kay Clark, Administrative Coordinator & David Bucklin, Technical Coordinator & Member SWCDs & Counties- Blue Earth, Cottonwood, Faribault, Freeborn, Jackson, Le Sueur, Martin, Watonwan & Waseca; Brown County SWCD

**B. Timeline Requirements:** Three years: July 1, 2013 through June 30, 2016 [Two full growing seasons]

**C. Long-Term Strategy and Future Funding Needs:** Project partners have been working for several years to improve water quality in the Greater Blue Earth Watershed region. This proposal allows a more aggressive approach, focused to higher level implementation practices that have been demonstrated as a practical strategy for reducing soil loss and nutrient transport from agricultural land. If we can get agricultural producers to *adopt* these practices, at the scale of this proposal, we will be interested more funds to continue.

## 2012-2013 Detailed Project Budget

*Implementing Landscape Scale BMP's in South Central Minnesota*

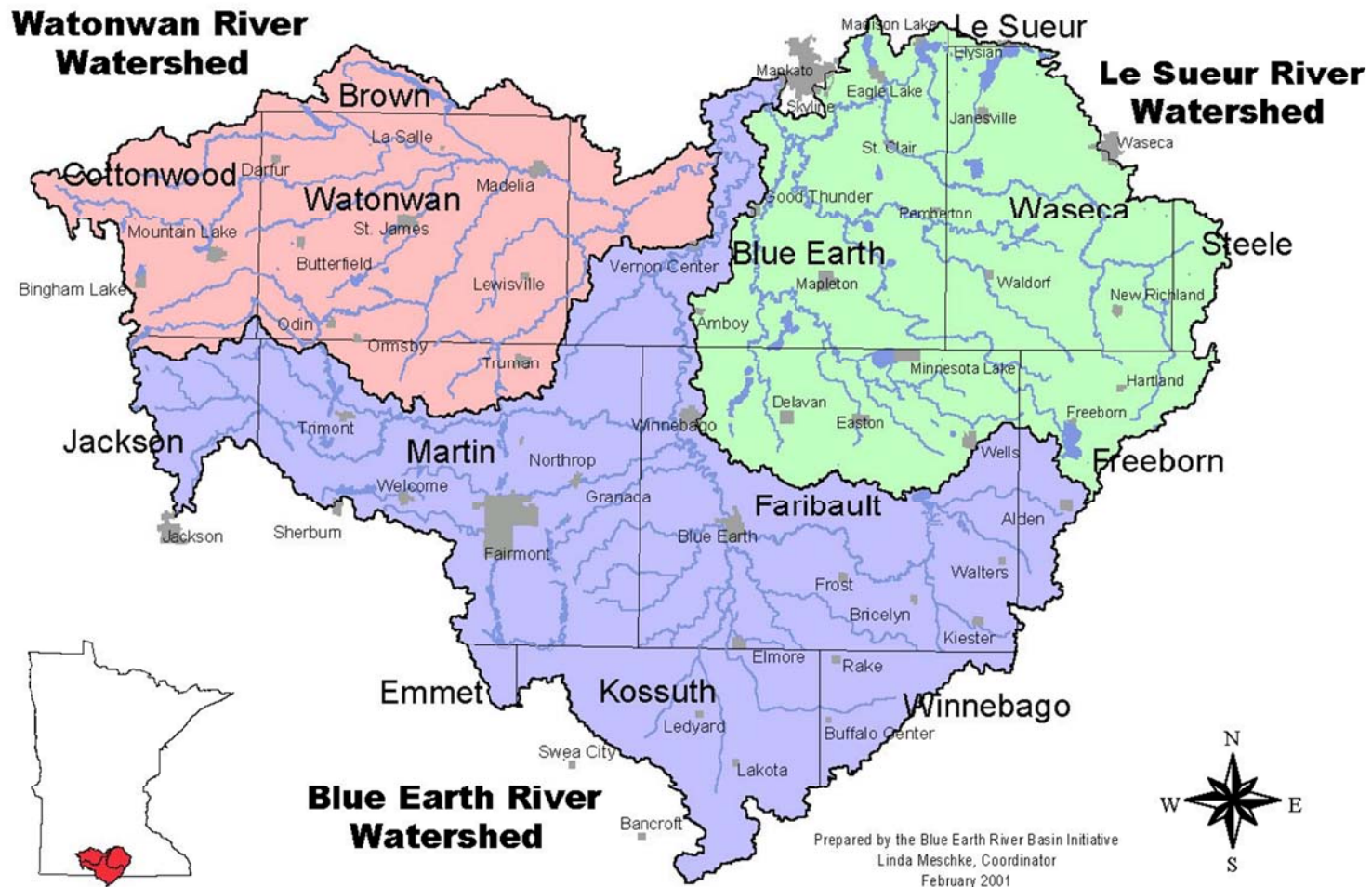
### IV. TOTAL ENRTF REQUEST BUDGET -- Three Years

<u>BUDGET ITEM</u>	<u>AMOUNT</u>
<b>Personnel: Project Director:</b> Linda Meschke, Rural Advantage [.3 FTE \$33.08/hr salary; \$7.61/hr benefits = \$25,000/ yr x 3 years]	\$ 75,000
<b>Personnel:</b> Jill Sackett- Rural Advantage/UMN Extension <b>Conservation Agronomist</b> [.24 FTE \$39.90/hr x 3 years Note: This is an existing contract [partnership] between Rural Advantage and the UMN Extension. Position is housed in the RA office & RA pays for the full position although technically Sackett is an UMN Extension Employee]	\$ 60,000
<b>Contracts: GBERBA:</b> SWCD Coordination, Landowner Contracts Administration and Reporting, Conservation Practice Reporting into E-link, Assist with Outreach and Training [\$40,000 x 3 years]	\$ 120,000
<b>Contracts: Conservation Marketplace:</b> Calculation of ecological uplift for each practice installed and entry into the ecosystem services registry. Assist with outreach and training. [\$15,000 x 3 years]	\$ 45,000
<b>Contract: UMN Extension:</b> Gary Wyatt- Natural Resources and Conservation, Assist with outreach, training and planning for practices involving agroforestry, trees, riparian and bioenergy plantings. [\$5,000/ year x 3 years]	\$ 15,000
<b>Travel: Rural Advantage:</b> Mileage for participation in project activities only [planning, outreach, training, landowner contacts, etc.] [5,405 miles @ \$0.555/mile x 3 years]	\$ 9,000
<b>Additional Budget Items:</b> Outreach, training and education materials needed to deliver at least 15 events per year. \$2,000 per 10 SWCDs = \$20,000 + \$15,000 x 3years]	\$ 65,000
Incentive for installation of <b>water storage</b> and <b>perennial plantings</b> . [1,700 acres x \$200 x 5 years (\$1,700,000)+ 1,700 acres x \$200/acre establishment cost share (\$340,000) + 20% Technical Assistance from local SWCDs (\$408,000)]	\$ 2,448,000
Incentive for installation of <b>cover crops</b> . [4,000 acres x \$30 = \$120,000 + SWCD Technical Assistance \$10/acre x 4,000 acres = \$40,000]	\$ 160,000
<b>TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =</b>	<b>\$ 2,997,000</b>

### V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
<b>Other Non-State \$ Being Applied to Project During Project Period:</b> McKnight Foundation[to Rural Advantage] - \$25,000	\$ 25,000	<i>Secured</i>
<b>Other State \$ Being Applied to Project During Project Period:</b> Clean Water Legacy [to GBERBA- Conservation Agronomist]	\$ 10,000	<i>Secured</i>
<b>In-kind Services During Project Period:</b>	\$ -	NA
<b>Remaining \$ from Current ENRTF Appropriation (if applicable):</b>	\$ -	NA
<b>Funding History:</b> McKnight Foundation [to Rural Advantage] 2007 through 2012	\$ 100,000	<i>Secured</i>
<b>Funding History:</b> West North Central SARE [Sustainable Agriculture Research & Education] [to Rural Advantage (and Practical Farmers of Iowa)] Rural Advantage share only. Cover Crops Programming. Ends 8/2012	\$ 74,710	<i>Secured</i>
<b>Funding History:</b> USDA Conservation Innovation Grant [to MN River Board] Conservation Marketplace of MN project- development of conservation marketplace policies, procedures & operations. Ends 8/2012	\$ 997,994	<i>Secured</i>

# Greater Blue Earth River Watershed



## Project Managers Qualifications and Organization Description

### Linda Meschke, President, Rural Advantage

Ms. Meschke has over 34 years of experience in working on agricultural and water resource issues in south central Minnesota. Her work has been centered on the implementation of innovative conservation practices to address agricultural non point source pollution. She currently is working on landscape diversification that includes targeting of perennials or 3<sup>rd</sup> Crops throughout the intense corn and soybean region of south central Minnesota. Under Ms. Meschke leadership Rural Advantage has developed four core initiatives including the 3<sup>rd</sup> Crop Initiative; Madelia Model; ECoPayPack [Ecological Commodity Payment Package], and the Farm2Cafeteria Network [local foods].

Ms. Meschke has extensive experience in working with producers/ landowners; local governments; non profits; University of Minnesota researchers and educators and private industry to bring them together and work toward common goals. In collaboration with multiple partners she has developed and successfully lead over \$10 million dollars in projects in the Greater Blue Earth River watershed area that have resulted in an estimated reduction of at least 9 percent of the pollution loading going to the Minnesota River from the Blue Earth River system.

She is currently an SWCD Supervisor for Martin County and was named an Associate Fellow for the Institute for the Environment at the University of Minnesota. She has additional experience working as the Executive Director of BERBI [Blue Earth River Basin Initiative]; Water Planner, Wetland Administrator and Agricultural Inspector for Martin County, Minnesota; farm partner for 25 years; loan servicing for Farmers Home Administration during the farm crisis of the mid 1980's; and as a Vocational Agricultural Instructor and FFA Advisor.

### Rural Advantage

Linda Meschke, with other partners, established on November 13, 2003 a 501[c][3] non profit called Rural Advantage under MN Statutes Chapter 317A to provide a vehicle to continue to advance the 3<sup>rd</sup> crop work in Minnesota and the Midwest. Linda Meschke is President and Founder of Rural Advantage. Rural Advantage's mission is to promote the connections between agriculture, the environment and rural communities in order to improve ecological health, economic viability and rural vitality. Objectives include:

- Advance landscape diversification to improve ecological health, rural vitality and farm profitability.
- Cultivate a more sustainable approach to agriculture that is diverse, resilient and responsible; and supports natural and agricultural 'systems' thinking.
- Foster rural economic development that supports rural families and local communities.
- Promote increased stewardship through education, demonstration and implementation.