

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

Project Title:

ENRTF ID: 094-B

Southeast Minnesota Cover Crop and Soil Health Implementation

Category: B. Water Resources

Sub-Category:

Total Project Budget: \$ 806,540

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

Summary:

This project will expand implementation of cover crops in Southeastern Minnesota, expand its economic framework, outreach, educational efforts, coordinate with other groups and involve agriculture youth organizations.

Name: Glen Roberson

Sponsoring Organization: SE SWCD Technical Support Joint Powers Board

Title: TSA Host Manager

Department:

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Location

Region: Southeast

County Name: Dodge, Fillmore, Freeborn, Goodhue, Houston, Mower, Olmsted, Rice, Steele, Wabasha, Winona

City / Township:

Alternate Text for Visual:

Top photo: Demonstration of cover crop interseeding equipment to area farmers. Bottom photo: successful interseeding of rye as a cover crop in June in SE MN.

_____ 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?			



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PROJECT TITLE:

Southeast Minnesota Cover Crop and Soil Health Implementation

I. PROJECT STATEMENT

This project will expand the implementation of cover crops in Southeastern Minnesota. Investments in cover cropping (CC) and soil health (SH) in SE-MN are critical for both sustained crop production and improved surface and groundwater quality. Increasing implementation of soil health practices in our cropping systems, is the main purpose of this project. The primary objectives of this project are summarized below:

1. Expand adoption rates of cover crops across all 11 counties in SE-MN. (Dodge, Fillmore, Freeborn, Goodhue, Houston, Mower, Olmsted, Rice, Steele, Wabasha, and Winona counties), from less than 2% of eligible cropland acres, to 6%.
2. Expand and improve the economic framework for CC/SH work that was initiated by BWSR, the University of MN, and the MN Extension Service. This will occur through the Farm Business Management Program, and efforts of the SH technician and the SH teams.
3. Expand outreach and educational efforts by planning and delivering 18 quality field days and 6 workshops, across the entire SE-MN geographic area, over a 3 year period.
4. Coordinate and collaborate with all other groups that are currently pursuing related projects in SE, to share information, leverage expertise, and maximize results. This project will support the existing soil health teams, and establish new teams or groups.
5. Involve agricultural youth organizations for learning, awareness, and sustainability.

The 11 county-based SWCDs are well positioned to lead this work. The Technical Service Area is a joint powers board of all the SWCDs, and is the project sponsor. Increased technical assistance is the key factor to deliver this work. Sharing information, methods, and resources across counties, to the entire region, will increase practice adoption rates, and improve efficiency. We will build upon past efforts and accomplishments. Practical workshops, and “see-for-yourself” field days will demonstrate these practices to farmers. The investment of public resources at this critical time will translate into more farmers using cover crops, greater coordination with private sector suppliers and consultants, and improved conditions for our critical soil and water resources. Due to the difficult farm economy, providing an option for an incentive payment that covers the basic seeding costs, will mean higher adoption rates. We are also seeking a complementary federal grant for \$629,700.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1: Expand adoption rates of cover crops across SE-MN.

Description: Cover cropping is occurring on less than 2% of available acres now. The objective is to triple that figure over a 3-year period, through technical assistance to producers, providing flexible incentive payments to farmers to try cover crops, by hosting field days and demonstrations, and by sharing information through meetings, workshops, and online communications. This will improve soil quality and water quality. An evaluation team consisting of the project manager, three SWCD supervisors, with two government and three private sector participants, will provide review and course-corrections, at four distinct times.

ENRTF BUDGET: \$687,000

Outcome	Completion Date
1. Hire full-time soil health technical expert	September 2019
2. Cover crops used on an additional 1100 acres per year	Yearly, June 2022
3. Plan and host 6 field days/year and 2 workshops/year on soil health and cover cropping	Yearly, June 2022

Activity 2: Develop the economic framework for broad cover crop adoption

Description: Cover crop adoption rates are low, in part because enough valid economic data has not been developed, assessed, analyzed, and provided to the farm community. As more farms initiate using cover crops,



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the opportunities increase to gather and organize these critical data. Soil health and water quality benefits require a longer timeframe for proper evaluation. Crop input costs, crop yields, and management costs can be tracked yearly. Constructing a framework to address both of these components is the goal of this activity. The evaluation of this activity will occur twice per year, through a joint effort by a soil health team member, a private crop consultant, and Riverland community college staff.

ENRTF BUDGET: \$13,000

Outcome	Completion Date
<i>1. Conduct literature review of relevant articles and reports</i>	<i>October 2019</i>
<i>2. Collect data from representative subset of farming operations who are utilizing cover crops</i>	<i>Yearly, Dec. 2021</i>
<i>3. Assemble, draft and finalize a report on farm economics for operations using cover crops and associated soil health conservation practices. Present the results online, & at meetings.</i>	<i>May, 2022</i>

Activity 3: Involve and engage agricultural youth organizations to learn about and promote cover crops.

Description: Youth organizations bring a new perspective and fresh energy and enthusiasm to any endeavor. FFA (Future Farmers of America) groups will be provided small grants (about \$1000/project and group), to focus their attention and efforts onto some aspect of soil health and cover cropping. This could involve developing information about a cover crop field day, or participating at various shows, fairs and meetings, to raise awareness and improve adoption rates. The yearly evaluation of this activity will be through the FFA team advisors, an SWCD supervisor, and two farmers from each county.

ENRTF BUDGET: \$24,470

Outcome	Completion Date
<i>1. Select and provide grants to 11 FFA chapters, for 2 years (22 projects total)</i>	<i>Dec. 2021</i>
<i>2. FFA groups develop and demonstrate/use their project information in their communities</i>	<i>Yearly, 2020 and 2021</i>
<i>3. All FFA projects are compiled and summarized into a final youth-authored report</i>	<i>May 2022</i>

Activity 4: Expand coordination and collaboration to improve profitability, soil health, and water quality.

Description: With many efforts in this arena being initiated, increased communication and information-sharing across the entire region is required. This must be a deliberate and explicit activity that reaches across programs, counties, departments and watersheds, and will be led by the SH technician and project manager. Supporting the development of soil health teams in areas that do not have a currently functioning team, is the first step. Local initiatives will involve more people, ready to learn and participate. Encouraging and supporting the ongoing work of established soil health teams (4) will be our second approach. The lead teams must be supported as they move forward with their innovative work. Thirdly, collaboration with applied research projects such as those using oilseed plants in cover crop demonstrations will be accomplished. This provides a mid-term strategy that can help develop the transition from traditional cover crops to oilseed (penny cress and camelina) production. This activity will be evaluated twice/year by the project manager, a private sector business representative, a University of MN faculty member, and 3 farmers. This evaluation team will provide project direction during the life of the project.

ENRTF BUDGET: \$82,070

Outcome	Completion Date
<i>1. Establish/support three new soil health teams in Area 7, and support the existing teams</i>	<i>July 2020</i>
<i>2. Utilize online platforms, and yearly workshops to share methods, results, and information</i>	<i>Yearly, 2022</i>
<i>3. Explicit coordination with Forever Green planners and leaders</i>	<i>Quarterly, 2022</i>



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III. PROJECT PARTNERS:

A. Partners receiving ENRTF funding

Name	Title	Affiliation	Role
Glen Roberson	Manager	Tech.Service Area 7	Project Manager
John Beckwith	Executive Director	Hiawatha Valley Resource Conservation and Development	Coordination with Forever Green; oilseed transition
County SWCD managers	SWCD managers	County soil and water conservation districts	Technical assistance, incentive pass through
Nick Schiltz	Agricultural Science Instructor	Riverland Community College	Economic analysis and report development
Tim Arlt	Regional Manager	MN Extension Service	Outreach

B. Partners NOT receiving ENRTF funding

Name	Title	Affiliation	Role
Mark Dittrich		MN Dept. of Agriculture	Field days and demonstration assistance
Natural Resources Conservation Service	District conservationists	U.S. Dept. of Agriculture	Financial and technical assistance via EQIP*, and potential multi-state collaboration grant

IV. LONG-TERM- IMPLEMENTATION AND FUNDING:

The management of our cropping systems and soils is an ongoing responsibility for the entire Minnesota community. Farmers, consumers, private businesses, universities, and government are all involved. The adoption and implementation of soil health practices will over time, improve farm profitability, and also improve our water resources. This project will help continue to move this current trend in a positive direction.

V. TIME LINE REQUIREMENTS: Due to crop rotations and the need to work with a diverse set of farms, farming operations, private sector suppliers and consultants, and University and government programs, we request a 3-year timeline for this grant (July 2019 to June 2022).

2019 Proposal Budget Spreadsheet

Project Title: Southeast Minnesota Cover Crop and Soil Health Implementation


IV. TOTAL ENRTF REQUEST BUDGET [3] years

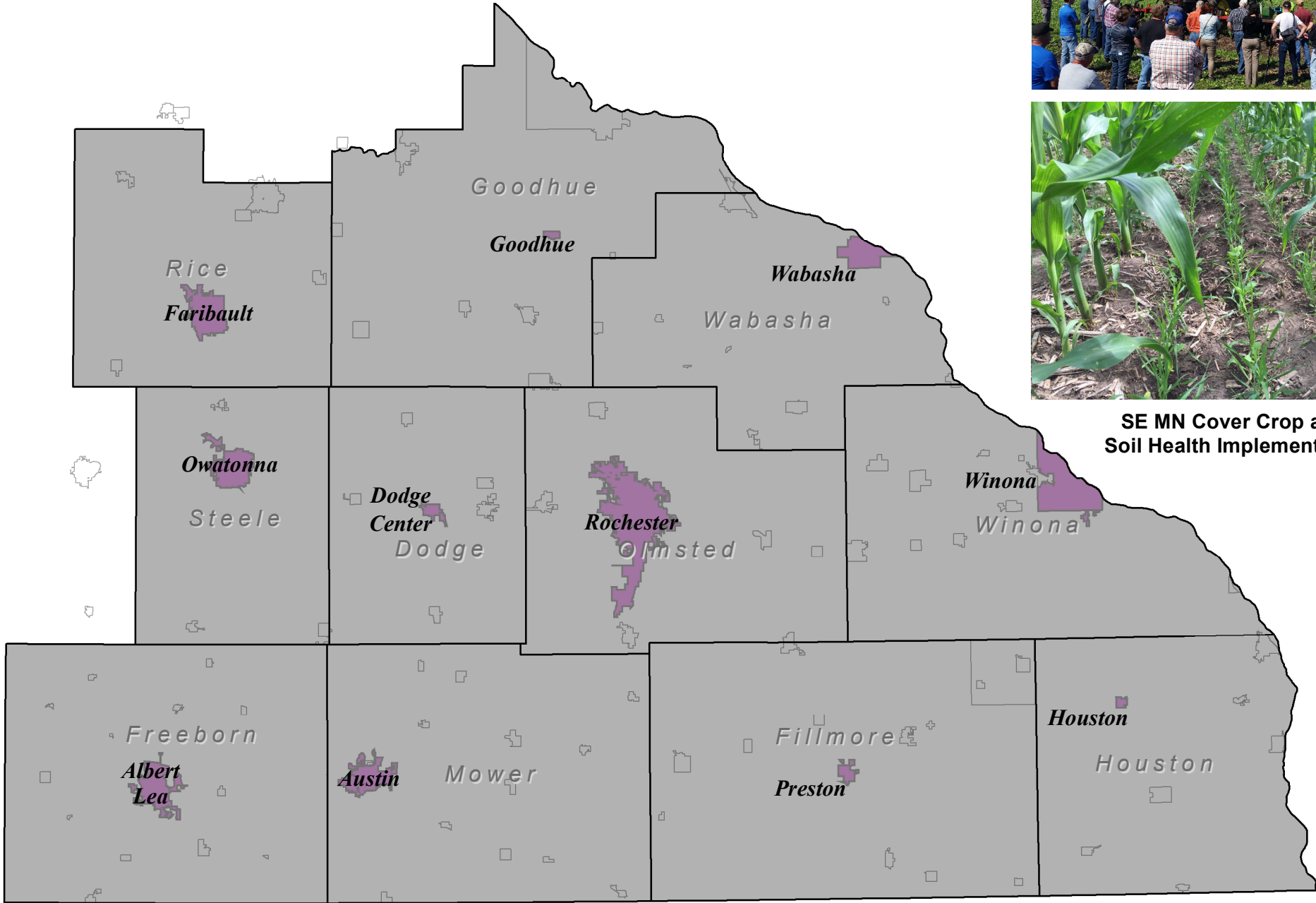
BUDGET ITEM (See "Guidance on Allowable Expenses")	AMOUNT
Personnel: 1.0 FTE Soil Health Technician; Outreach coordinator; oilseed collaboration; project coordination and administration/project management	\$ 494,140
Professional/Technical/Service Contracts: Farm economic analysis; cover crop and soil health literature review and assessment; research/development and implementation; and reporting/presentations.	\$ 13,000
Equipment/Tools/Supplies: Rainfall simulator (maintenance) and phone.	\$ 5,400
Acquisition (Fee Title or Permanent Easements):	NA
Travel: Vehicle and mileage	\$ 90,000
Additional Budget Items: Field days; workshops; FFA project support; incentive payments.	\$ 204,000
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 806,540

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: Federal NRCS Multi-state collaboration grant - application stage.	\$ 629,700	Grant application submitted
Other State \$ To Be Applied To Project During Project Period: Root River watershed soil health component.	\$ 62,640	
In-kind Services To Be Applied To Project During Project Period: Minnesota Department of Agriculture, and SWCDs.	\$ 96,100	
Past and Current ENRTF Appropriation:	NA	
Other Funding History:	NA	

Southeast Minnesota Soil and Water Conservation Districts & Area 7 Techninical Support Joint Powers Board

 Denotes County SWCD Office



**SE MN Cover Crop and
Soil Health Implementation**

Project Manager Qualifications and Organization Description

The Project Manager for the SE Soil and Water Conservation District (SWCD) Technical Support Joint Powers Board (JPB) is Glen Roberson, Manager of the Goodhue Co. Soil & Water Conservation District. Glen has served in this role since the JPB was formed in 1995, working primarily with funding from the MN Board of Water & Soil Resources and locally raised cash match. The Goodhue Co. SWCD is the Host and Fiscal Agent for the JPB, managing all their programs and coordinating all reporting and financial audits.

The JPB was formed by the 11 SWCDs in SE MN to provide Professional Engineering technical assistance to its' 11 SWCD membership and thereby increasing their technical capacity and efficiency. Primary workload of the 4 JPB Staff that are strategically located in 4 separate SWCD offices is generated and prioritized by the SWCD members, and the main projects have been Feedlot Runoff Control, Streambank Stabilizations, Erosion Control Best Management Practices, and Wetland Restorations. This was expanded via sub contracts with local SWCDs to provide technical assistance for Nutrient Management, Nitrogen BMPs, and the MN Ag Water Quality Certification Program. The JPB provides administrative oversight and reporting for all of these programs, and has begun working with the SE MN Water Resources Board (JPB of counties) to increase efficiency on programs with similar goals.

The JPB has expanded its services in recent years to include Soil Health and Cover Crops by utilizing BWSR grants with local funds to sub-contract with a local SWCD member (Fillmore SWCD) to hire a Soil Health professional (Dean Thomas). This position provides expert Soil Health assistance to all 11 SWCDs.

The SE SWCD Tech Support Joint Powers Board was formed in 1995 by the following SWCDs: Dodge, Fillmore, Freeborn, Goodhue, Mower, Olmsted, Rice, Root River (Houston County), Steele, Wabasha, and Winona. It currently employs 4 full time staff (Pete Fryer P.E. located in the Winona SWCD, Kate Bruss P.E. located in the Goodhue SWCD, Jason Rochester located in the Root River SWCD, and Chris Nelson located in the Olmsted SWCD). It also coordinates and administers regional grants within SE MN for Nutrient Management (agreements with Rice & Fillmore SWCDs), Soil Health (agreement with Fillmore SWCD), and a USDA / BWSR Regional Conservation Partnership Program for small feedlot fixes (agreements with all 11 SWCDs for \$1.6 million multi-year grant matched 1:1 with USDA Natural Resources Conservation Service grant funds).

