



Environment and Natural Resources Trust Fund

2027 Request for Proposal

General Information

Proposal ID: 2027-084

Proposal Title: Advancing Climate-Smart Agriculture to Reduce Nitrate Pollution

Project Manager Information

Name: Riley Buley

Organization: Fillmore County Soil and Water Conservation District

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Project Basic Information

Project Summary: Promote climate-smart agriculture in the Root River and Cedar Watersheds to cut nitrate pollution, protect water resources, and increase carbon sequestration for measurable water quality and climate benefits.

ENRTF Funds Requested: \$6,025,000

Proposed Project Completion: December 31, 2031

LCCMR Funding Category: Land (F)

Project Location

What is the best scale for describing where your work will take place?

Region(s): SE

What is the best scale to describe the area impacted by your work?

Region(s): SE

When will the work impact occur?

During the Project

Narrative

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

Southeastern Minnesota is facing a nitrate pollution dilemma that threatens both drinking water and surface waters. The region's karst geology and intensive agricultural land use make groundwater especially vulnerable, allowing nitrate to move quickly from farm fields into aquifers and connected streams. Several communities in the Root River and Cedar Watersheds rely on groundwater sources with elevated nitrate levels, posing long-term public health concerns recognized by the US EPA.

Agriculture dominates the landscape, and voluntary adoption of climate-smart agricultural practices offers a proven way to reduce nitrate losses while maintaining farm productivity. Over the past two years, the Fillmore and Root River SWCDs have led the Alliance to Advance Climate-Smart Agriculture (CSA) Pilot Program, enrolling more than 67,000 acres in cover crops, nutrient management, and reduced tillage BMPs. Using MPCA loading calculations, these practices are estimated to prevent 471,198 pounds of nitrogen losses annually, while also increasing carbon dioxide and nitrous oxide sequestration.

Despite strong producer engagement and measurable results, the pilot program will end in June 2027, creating a critical funding gap. LCCMR support would sustain this effective approach, expand long-term voluntary adoption, and protect water quality in Root River and Cedar Watersheds.

What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.

The proposed solution expands climate-smart agricultural practices across the Root River and Cedar Watersheds using a local, results-driven model focused on reducing nitrate losses and increasing CO₂ and N₂O sequestration. Building on the successful CSA program, this project leverages trusted SWCD relationships to support farmer participation and voluntary adoption of proven conservation practices.

LCCMR funding will provide technical assistance and financial cost-share for practices shown to reduce nitrogen losses and enhance greenhouse gas sequestration, including cover crops, nutrient management planning, no-till and reduced tillage, and conservation crop rotations. Practice selection will target fields and landscapes most vulnerable to nitrate contamination, such as areas identified through the MDA's high-nitrate township testing program.

The project will strengthen and expand existing CSA program infrastructure, outreach systems, and established producer networks, enabling staff to prioritize strategic enrollment, high-quality implementation, and accountability for environmental results rather than rebuilding program capacity. Outcomes—including estimated pollutant reductions and CO₂ and N₂O sequestration—will be quantified using BWSR and USDA-approved assessment tools to ensure transparent and credible reporting.

Overall, this program will deliver lasting water quality improvements in both Watersheds while advancing resilient agricultural systems across southeastern Minnesota.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

This program will extend nitrate reductions and CO₂ and N₂O sequestration achieved through the CSA program, directly supporting State water quality goals in the Root River and Cedar Comprehensive Watershed Management Plans and the Minnesota Nutrient Reduction Strategy, which targets a 45% decrease in pollutant loading. Over four years, an estimated 104,400 acres will be enrolled, offering up to 447 producers the opportunity to adopt climate-smart practices. Education efforts will encourage long-term adoption beyond the program's end. Additional enrollment will focus on high-nitrate township testing areas to further expand acres in the most vulnerable locations.

Activities and Milestones

Activity 1: Implement Climate-Smart Agricultural Practices to Reduce Groundwater and Surface Water Pollution and Sequester CO₂ and N₂O.

Activity Budget: \$5,220,000

Activity Description:

Objective:

Reduce nitrate and sediment loading to groundwater and surface waters in the Root and Cedar River Watersheds by increasing adoption of climate-smart agricultural practices on high-risk agricultural lands.

Methods:

SWCD staff will conduct targeted outreach and enrollment with producers, prioritizing fields in townships with elevated nitrates. Technical assistance will support implementation of practices including cover crops, nutrient management, no-till and reduced tillage, and conservation crop rotations where appropriate. Project cost-share will be used to encourage voluntary adoption and ensure high-quality implementation at a planned rate of \$50 per acre.

Outputs:

104,400 acres are predicted to be implemented over a four-year period, with up to 447 producers given the opportunity to sign up at \$50 per acre. 100 acres per year per producer with a 2-year contract max. 372 producer goal. In high nitrate townships, producers would have access to 2-year contract at 200 acres per year with a 75 producer goal.

Impact and Use:

Installed practices will reduce nitrogen, phosphorus, and sediment losses while also sequestering CO₂ and N₂O gases. These reductions will directly protect public and private drinking water supplies and surface waters in the Root and Cedar River Watershed and downstream communities.

Activity Milestones:

Description	Approximate Completion Date
Year 1: Sign up 100 producers to implement practices in Root River and Cedar Watersheds.	December 31, 2028
Year 2: Sign up 200 producers to implement practices in Root River and Cedar Watersheds.	December 31, 2029
Year 3: Sign up 147 producers to implement practices in Root River and Cedar Watersheds.	December 31, 2030
Year 4: Sign up remaining producers to implement practices in Root River and Cedar Watersheds	December 31, 2031

Activity 2: Provide Technical Assistance and outreach to Implement Climate-Smart Agricultural Best Management Practices

Activity Budget: \$625,800

Activity Description:

Objective:

Ensure effective, consistent, and high-quality implementation of climate-smart agricultural best management practices (BMPs) across the Root River and Cedar Watersheds through coordinated technical assistance provided by local SWCDs.

Methods:

The SWCD staff of 7 districts will provide one-on-one technical assistance to participating producers, including site assessments, conservation planning, practice selection, and implementation support. Area districts will coordinate to share technical expertise, align practice standards, and prioritize BMPs with the greatest potential to reduce nitrate

losses and protect groundwater and surface waters. Staff will assist producers with compliance, documentation, and verification of practice installation.

Outputs:

Completed technical assistance records; verified BMP installations; and consistent application of climate-smart standards across participating counties. Conduct exit surveys with producers to track any additional acres implemented. 447 producers contracts x 20 hours of staff time per contract x \$70 average billing rate = \$625,800.00

Impact and Use:

High-quality technical assistance will increase BMP effectiveness, improve producer confidence, and maximize pollutant reductions per acre. Coordinated district support strengthens local conservation capacity and ensures practices are implemented where they deliver the greatest water quality benefits. This will increase confidence for producers to implement additional acres into select conservation practices.

Activity Milestones:

Description	Approximate Completion Date
Year 1: SWCD staff provide technical assistance to farmers to successfully implement soil health practices	December 31, 2028
Year 2: SWCD staff provide technical assistance to farmers to successfully implement soil health practices	December 31, 2029
Year 3: SWCD staff provide technical assistance to farmers to successfully implement soil health practices	December 31, 2030
Year 4: SWCD staff provide technical assistance to farmers to successfully implement soil health practices	December 31, 2031

Activity 3: Administer and Coordinate LCCMR Grant Implementation in Southeastern Minnesota

Activity Budget: \$179,200

Activity Description:

Objective:

Ensure effective, transparent, and accountable administration of LCCMR funds to support climate-smart agricultural implementation across the southeastern Minnesota region.

Methods:

Fillmore SWCD will serve as the fiscal agent and administrator for the LCCMR grant. Responsibilities will include financial management, contracting, reporting, coordination with partner SWCDs, and compliance with all LCCMR requirements. Fillmore SWCD will oversee budgets, track expenditures, coordinate activity timelines, and ensure consistent implementation standards across participating districts. Regular communication and coordination meetings will support delivery and problem-solving throughout the project period. Collaborating Districts will Administer cost-Share via their own respective boards, submit reimbursement details to Fillmore, and Fillmore will submit reimbursement details to LCCMR.

Outputs:

Executed agreements with partner districts; accurate financial records; timely progress and final reports submitted to LCCMR; and coordinated regional implementation of project activities. 448 hours of administration yearly x 4 years x \$100 average hourly billing rate = \$179200.

Impact and Use:

Centralized administration will ensure funds are used efficiently and consistently, maximize environmental outcomes, and provide transparency and accountability for public investment.

Evaluation:

Successful administration will be evaluated through on-time reporting, budget compliance, audit readiness, and completion of planned project activities and deliverables.

Activity Milestones:

Description	Approximate Completion Date
Year 1: Annual reporting to LCCMR	December 31, 2028
Year 2: Annual reporting to LCCMR	December 31, 2029
Year 3: Annual reporting to LCCMR	December 31, 2030
Year 4: Annual reporting to LCCMR	December 31, 2031

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Wanda Anderson	Winona SWCD	Collaborating SWCD will be a partner in the regional program and implement practices within the county of Winona	Yes
Dave Walter	Root River SWCD	Collaborating SWCD will be a partner in the regional program and implement practices within the county of Houston.	Yes
Cody Fox	Mower SWCD	Collaborating SWCD will be a partner in the regional program and implement practices within the county of Mower.	Yes
Lindsey Cornell	Freeborn SWCD	Collaborating SWCD will be a partner in the regional program and implement practices within the county of Freeborn	Yes
Jessica Klingfus	Dodge SWCD	Collaborating SWCD will be a partner in the regional program and implement practices within the county of Dodge.	Yes
Skip Langer	Olmsted SWCD	Collaborating SWCD will be a partner in the regional program and implement practices within the county of Olmsted	Yes

Dissemination

Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.

Project results will be shared with producers, partner agencies, and the public through multiple reporting and outreach channels. Environmental outcomes, including acres enrolled, practices implemented, and estimated reductions in nitrogen, sediment, and greenhouse gas emissions, will be documented using BWSR and USDA-approved assessment tools and summarized in annual and final reports submitted to LCCMR.

Results will also be incorporated into the Root River and Cedar Comprehensive Watershed Management Plan tracking systems and shared with state partners including BWSR, MPCA, and MDA to inform statewide conservation planning and nutrient reduction strategies. Program outcomes will be presented through local conservation district meetings, watershed advisory committees, and producer outreach events to encourage continued voluntary adoption of climate-smart agricultural practices.

Participating Soil and Water Conservation Districts will share program progress and results through newsletters, websites, and public presentations to ensure transparency and allow other conservation partners to replicate successful approaches. These dissemination efforts will help extend the impact of the project beyond the grant period by informing future conservation investments and producer engagement across southeastern Minnesota.

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?

Project results will continue through producer adoption of climate-smart practices that provide long-term water quality benefits in both Watersheds. Program participation and education will help ensure these practices remain in place beyond the grant period, producing lasting environmental outcomes. Water quality loading results will be incorporated into reporting for Comprehensive Watershed Management Plans, guiding future conservation efforts and informing partners and the public. After the project concludes, ongoing implementation will be supported through state and federal conservation programs, local funding, and partner resources, building on the SWCD delivery framework and producer relationships established through this project.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Brightsdale Dam Channel Restoration	M.L. 2023, , Chp. 60, Art. 2, Sec. 2, Subd. 04g	\$1,004,000

Project Manager and Organization Qualifications

Project Manager Name: Riley Buley

Job Title: District Administrator

Provide description of the project manager’s qualifications to manage the proposed project.

I, Riley Buley, PhD, have over 14 years of experience leading water quality research and local conservation programs. I have worked with two Midwestern Tribal Governments in local conservation and currently serve at Fillmore SWCD. At Fillmore, I successfully managed an LCCMR grant (Project #2023-129) and managed the pilot Climate Smart Agriculture Partnership between Fillmore and Houston Counties. This partnership implemented over \$7 million in cost-share funding and established nitrate-reducing practices on 67,000 acres over three years.

I have managed grant funding from State (BWSR, MPCA, MDA, MDH), Federal (USDA), and non-profit (The Nature Conservancy) sources. Additionally, I serve as the Grant Administrator and Fiscal Agent for the Root River One Watershed One Plan, which has distributed \$6.4 million in grant funding cost share across six counties that makes up the watershed. These experiences have equipped Fillmore SWCD to deliver a high-quality grant program to local landowners in the region.

Organization: Fillmore County Soil and Water Conservation District

Organization Description:

The Fillmore SWCD works to promote natural resource stewardship in Fillmore County, Minnesota by providing educational, technical, and financial assistance to landowners, farmers, and the public. The District offers local services such as private well water testing, rain barrel systems, tree and shrub sales, grazing and nutrient management support, and other conservation help. It also runs programs focused on soil health, water management, buffers, and well sealing to reduce erosion and improve landscape function. The SWCD assists with state and federal conservation programs to support environmentally sensitive land practices and improve water quality. Additionally, Fillmore SWCD engages in education and outreach such as Envirothon, classroom presentations, and scholarships. Serving as a local conservation partner, the District collaborates with landowners and agencies to implement voluntary conservation practices, improve soil and water resources, and help connect people with technical resources and funding opportunities.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Fillmore Staff Technical Assistance		The SWCD staff of 7 districts will provide one-on-one technical assistance to participating producers, including site assessments, conservation planning, practice selection, and implementation support			20%	1,277.16		\$89,400
Administration		Fillmore SWCD will serve as the fiscal agent and lead administrator for the LCCMR grant. Responsibilities will include financial management, contracting, reporting, coordination with partner SWCDs, and compliance with all LCCMR requirements. Fillmore SWCD will oversee budgets, track expenditures, coordinate activity timelines, and ensure consistent implementation standards across participating districts. Regular communication and coordination meetings will support efficient delivery and problem-solving throughout the project period.			20%	1,792		\$179,200
							Sub Total	\$268,600
Contracts and Services								
Winona SWCD	Subaward	SWCDs will provide technical assistance to participating farmers to implement the selected soil health conservation practices. SWCDs will also complete application evaluation, contracting, certification reviews, payment voucher development and cost share payment dissemination. Reporting to Fiscal agent will be required.				1,277.16		\$89,400
Root River SWCD	Subaward	SWCDs will provide technical assistance to participating farmers to implement the selected soil health conservation practices. SWCDs will also				1,277.16		\$89,400

		complete application evaluation, contracting, certification reviews, payment voucher development and cost share payment dissemination. Reporting to Fiscal agent will be required.						
Freeborn SWCD	Subaward	SWCDs will provide technical assistance to participating farmers to implement the selected soil health conservation practices. SWCDs will also complete application evaluation, contracting, certification reviews, payment voucher development and cost share payment dissemination. Reporting to Fiscal agent will be required.				1,277.16		\$89,400
Mower SWCD	Subaward	SWCDs will provide technical assistance to participating farmers to implement the selected soil health conservation practices. SWCDs will also complete application evaluation, contracting, certification reviews, payment voucher development and cost share payment dissemination. Reporting to Fiscal agent will be required.				1,277.16		\$89,400
Olmsted SWCD	Subaward	SWCDs will provide technical assistance to participating farmers to implement the selected soil health conservation practices. SWCDs will also complete application evaluation, contracting, certification reviews, payment voucher development and cost share payment dissemination. Reporting to Fiscal agent will be required.				1,277.16		\$89,400
Dodge SWCD	Subaward	SWCDs will provide technical assistance to participating farmers to implement the selected soil health conservation practices. SWCDs will also complete application evaluation, contracting, certification reviews, payment voucher				1,277.16		\$89,400

		development and cost share payment dissemination. Reporting to Fiscal agent will be required.						
							Sub Total	\$536,400
Equipment, Tools, and Supplies								
							Sub Total	-
Capital Equipment								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
							Sub Total	-
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
		Payments to farmers to Implement Climate-Smart Agricultural practices on private lands	Implementation of soil health practices on farms across the southeastern Minnesota landscape following program requirements to reduce nitrate leaching into groundwater and improve CO2 and N2O sequestration.					\$5,220,000

							Sub Total	\$5,220,000
							Grand Total	\$6,025,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
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Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	-
Non-State				
			Non State Sub Total	-
			Funds Total	-

Total Project Cost: \$6,025,000

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: [ab8e1c5b-ad6.pdf](#)

Alternate Text for Visual Component

Graphic summarizing the process and benefits of the CSA program....

Financial Capacity

Title	File
2024 Audit	563f5bfb-3a7.pdf

Board Resolution or Letter

Title	File
Wetzel Board Signature	b85adc49-1db.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Do you understand that travel expenses are only approved if they follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

N/A

Does your project have potential for royalties, copyrights, patents, sale of products and assets, or revenue generation?

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

N/A

Does your project include original, hypothesis-driven research?

No

Does the organization have a fiscal agent for this project?

No

Does your project include the pre-design, design, construction, or renovation of a building, trail, campground, or other fixed capital asset costing \$10,000 or more or large-scale stream or wetland restoration?

No

Do you propose using an appropriation from the Environment and Natural Resources Trust Fund to conduct a project that provides children's services (as defined in Minnesota Statutes section 299C.61 Subd.7 as "the provision of care, treatment, education, training, instruction, or recreation to children")?

No

Provide the name(s) and organization(s) of additional individuals assisting in the completion of this proposal:

All participating Districts have been notified of this project submission.

Do you understand that a named service contract does not constitute a funder-designated subrecipient or approval of a sole-source contract? In other words, a service contract entity is only approved if it has been selected according to the contracting rules identified in state law and policy for organizations that receive ENRTF funds through direct appropriations, or in the DNR's reimbursement manual for non-state organizations. These rules may include competitive bidding and prevailing wage requirements

N/A