



# Environment and Natural Resources Trust Fund

## 2023 Request for Proposal

### General Information

**Proposal ID:** 2023-027

**Proposal Title:** Landowner Networking for More Resilient Woodlands in Minnesota

### Project Manager Information

**Name:** Dean Current

**Organization:** U of MN - College of Food, Agricultural and Natural Resource Sciences

**Office Telephone:** (651) 238-5226

**Email:** curre002@umn.edu

### Project Basic Information

**Project Summary:** We will increase management, resilience, and carbon storage on private woodlands by fostering peer exchange about land management practices and informing landowners about new payment systems for conservation services.

**Funds Requested:** \$610,000

**Proposed Project Completion:** June 30, 2026

**LCCMR Funding Category:** Methods to Protect, Restore, and Enhance Land, Water, and Habitat (F)

### Project Location

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

Statewide

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

Statewide

**When will the work impact occur?**

During the Project and In the Future

## Narrative

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

Minnesota has 6.5 million acres of non-industrial private forests owned by 200,000 landowners. Those private woodlands are an important natural heritage that, if managed, could store greater amounts of carbon and be more resilient to climate change. Despite years of efforts to promote improved management of private woodlands, only about 128,000 acres of those woodlands are under updated stewardship plans and most family-owned woodlands lack a current, professionally developed management plan. Even on ownerships with current plans, recommended practices are often not implemented, leaving those woodlands less resilient and at risk of degradation and loss. As efforts accelerate to address climate change, there is growing interest in increasing the capacity of woodlands to store carbon to mitigate climate change. Payments for conservation services are available to support landowners who manage their woodlands in a way that stores carbon and increases the capacity to sequester new carbon more quickly. This has created opportunities for private landowners who manage their woodlands to benefit from payments for conservation services and improved forest health. Those opportunities are often unrealized due to a lack of knowledge, technical support, trusted information sources, and options requiring a minimum amount of paperwork and bureaucracy.

### **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.**

Research shows landowner-to-landowner networks are effective in promoting adoption of improved forest management as landowners better understand the constraints their peers face. Experienced landowners can explain how they were able to overcome those constraints. Through a unique partnership leveraging extensive experience working with forest and agricultural landowners, and creating interactive networking tools, we will develop at least 45 case studies of landowners who have successfully implemented woodland management practices. Those stories will be shared with other woodland owners across the state using digital and printed outreach materials, added to curricula for existing landowner education programs, and presented at landowner meetings. The objective is to provide opportunities for woodland owners to share experiences to promote improved private woodland management. In addition to the landowner-to-landowner networking, we will undertake a comprehensive review of existing programs for payments for conservation services for woodland owners and present to them with options for receiving payments, what that might require in terms of management, paperwork and viability. Internet based materials and tools will include mapping layers to assist landowners in where to plan for management activities.

### **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?**

Through the development of landowner case studies, landowner to landowner networks, technical assistance and outreach tools, materials, and events, we will increase the adoption of improved forest management on private woodlands in Minnesota contributing to the protection, restoration, and enhancement of woodlands throughout the state. Improved management will result in increased resilience, conserving Minnesota's forests and carbon stocks while increasing the capacity of private woodlands to sequester and store carbon. A better understanding of payments for conservation services for woodlands will incentivize woodland owners' adoption of improved management.

## Activities and Milestones

### Activity 1: Prepare landowner cases/stories related to the implementation of forest management practices

**Activity Budget:** \$134,000

**Activity Description:**

This activity will provide case studies/stories of successful woodland management by private woodland owners and has two main tasks: 1) Working with an advisory group of project partners, agency personnel and private woodland owners, prepare a protocol for gathering information on successful forest management with information that would be of interest to landowners considering managing their woodlot based on the experiences of peers; and 2) Interview landowners and prepare cases using the standard protocol from task 1; and 3) Record videos of landowners telling their story to be included in the internet version of the case studies.

**Activity Milestones:**

Description	Completion Date
Prepare protocol for case studies/stories	September 30, 2023
Complete at least 45 landowner interviews and video recordings	December 31, 2024

### Activity 2: Create web-based tools/databases and printed outreach materials featuring landowner case studies/stories.

**Activity Budget:** \$85,000

**Activity Description:**

Activity 2 will involve preparing a database for entering case studies, entering the case study information into the database and adding a GIS component that would allow the user or landowner to add layers to the map (exs. Soils, forest cover, climate change projections). The data presented will be meant to respond to landowner needs identified in activity 1 through the participation of woodland owners in the preparation of protocols for data gathering. The database would be configured to be able to add the cases of existing landowner to landowner databases such as FarmMaps (farmmaps.umn.edu) and the Great Lakes Silvicultural Library (silvlib.cfans.umn.edu). Data and information that would be included:

- Case study in pdf format for downloading and printing
- Short video introduction by forest landowner
- GIS references
- Woodland owner mapping

The other task as part of this activity will be to prepare a volume of case studies that can be accessed electronically or printed and distributed at outreach events. This will provide another way for landowners to access the case studies/stories and contact information. (Note: all case study participants will decide how their contact information would be included.)

**Activity Milestones:**

Description	Completion Date
Prepare case study database and GIS interface	December 31, 2024
Enter at least 45 case studies into database with pdf files and video	June 30, 2025
Publish and distribute case study volume with at least 45 cases	June 30, 2025

### Activity 3: Review and present opportunities for Payments for Conservation Services (PCS) to private woodland owners

**Activity Budget:** \$291,000

#### Activity Description:

Payments for Conservation Services (PCS; including carbon credits) represent opportunities for woodland owners and incentives for improved forest management but it needs to be simplified. The markets for PCS and carbon are new, risky and poorly understood. We will undertake a comprehensive review of existing and emerging opportunities for woodland owners to receive payments for PCS and carbon to develop possible case studies of woodland owners participating in programs of PCS. We will interview companies providing PCS, woodland owners who are participating in programs and undertake a thorough review of the literature on PCS programs for woodland owners. Based on the comprehensive review of existing PCS programs and literature, we will prepare and maintain a woodland owners guide to payments for conservation services. We project that by providing reliable information on PCS from a trusted source (our partners), implementation of practices recommended in stewardship plans could be increased by 20%.

#### Activity Milestones:

Description	Completion Date
Review of literature on PCS for private woodlands	December 31, 2023
Conduct company and woodland owner interviews	August 31, 2024
Preparation and distribution of woodland owners guide to PCS	December 31, 2024
Report on PCS for private woodland owners – opportunities and constraints	June 30, 2025

### Activity 4: Outreach to private woodland owners to promote improved forest management

**Activity Budget:** \$100,000

#### Activity Description:

Parallel to the development of the case studies, internet tools, and landowner information on PCS for woodlands, we will be implementing a more simplified, focused outreach plan which will simultaneously provide preliminary information to private woodland owners, solicit their input into project activities, review of preliminary outputs of the project, and as finished outputs become available, distribute those products to them. All of our project partners have extensive experience with landowner outreach in both the agricultural and forested areas of the state and are committed to integrating the results of this project into their ongoing outreach programs and accompanying woodland owners as they implement improved forest management practices providing the resources and technical assistance required.

New landowner case studies can immediately be included in Extension curricula including the Master Woodland Owner program and regular monthly webinars. Case studies can also be featured in landowner conferences such as Minnesota Family Woodland Conferences, St. John's Woodland Owner Weekends, MFA and SFA annual meetings, and county- and regional-level landowner meetings. All of these programs and events occur each year, so new content can efficiently plug in. As noted above, many landowner learners highly value learning from the experiences of their peers.

#### Activity Milestones:

Description	Completion Date
Develop the Woodland Walk program for woodland owners with less than 20 acres	December 31, 2023
Create the Minnesota Forest Atlas (subset of the mnatlas.org)	December 31, 2024
Include new content in Extension courses, landowner events. Promote outreach through partner organizations and programs.	December 31, 2024
Coordinate UMN, DNR, MFA, MNWWN, MFRC, other landowner communications to include new content their communications.	December 31, 2024



## Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Brian Huberty	Minnesota Forestry Association	The Minnesota Forestry Association (MFA) will help select private woodland case studies and participate in interviewing and writing up the case studies. MFA will also help organize, host, promote and participate in outreach events.	Yes
Lucinda Winter	Sustainable Farming Association of Minnesota	SFA will participate in identifying landowners, interviewing landowners and preparing case studies. SFA will also be an integral part in the outreach efforts helping to organize, host, and participate in outreach events and providing follow up assistance to interested woodland owners during and after the project is implemented.	Yes
Will Bartsch	UMN-Duluth - NRRRI	Mr. Bartsch with colleagues from NRRRI will develop: 1) a website housing the mapping application and content about project.; 2) basic interactive mapping application to provide access to case studies of landowners implementing forest management activities; and 3) a user interface for uploading and displaying case studies.	Yes
John DuPlissis	UMN-Duluth - NRRRI	Mr. DuPlissis will be responsible for assisting in developing the peer to peer networking effort between private woodland owners.	Yes
Eli Sagor	University of Minnesota Extension	Supervising new (partial FTE) hire for case study development, integrating new content into Extension courses including UMN Master Woodland Owner program, webinars, other landowner events. Assisting with coordination across agencies and organizations. Ensuring coordination between newly developed content and the existing Great Lakes Silviculture Library.	Yes

## 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?**

At the end of the project we will complete private woodland owner case studies and have them available in at least 3 internet sites and through printed volumes of case studies and a woodland owners guide to payments for environmental services in printed and electronic formats. But importantly, we will also have integrated the cases and peer to peer networking into the programs of the Sustainable Farming Association, the Minnesota Forestry Association, and UMN Extension Forestry programs. As the project develops we will develop a strategy for continued support to maintain and improve the internet based resources.

## Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Promoting and Restoring Oak Savanna Using Silvopasture	M.L. 2019, First Special Session, Chp. 4, Art. 2, Sec. 2, Subd. 08b	\$750,000

## Project Manager and Organization Qualifications

**Project Manager Name:** Dean Current

**Job Title:** Co-Director, Center for Integrated Natural Resources and Agricultural Management (CINRAM)

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

Dr. Current has a BS in forestry, and a Masters and PhD in forestry economics. He has been working with issues related to the adoption of forestry, agroforestry, agriculture, and natural resource management for over 40 years with a focus on the adoption of more resilient and sustainable land use management systems that meet landowners needs while

providing benefits to landowners and society. He has managed teams of researchers and practitioners in Minnesota and also in international settings primarily in Latin America.

Since 2018 he has been leading an effort to create case studies of landowners who have implemented more sustainable forestry, agroforestry and agricultural practices. The objective of that work has been to provide interested landowners information based on the experiences of their fellow landowners and facilitate communication between landowners to discuss issues related to the adoption of those practices. Landowner to landowner communication is an effective way to promote adoption of sustainable practices as other landowners with experience can be a more trusted source of information and better understand other landowners' constraints and issues related to adoption. This effort has required coordination between the UMN Sustainable Development Partnerships, UMN Forestry Extension, MnDOT, the Sustainable Farming Association of Minnesota, and SWCD's and watershed districts.

Dr. Current has been managing CINRAM for 20 years including research on water quality issues and adoption of conservation measures by farmers, research on the adoption of snow fences by landowners working with MnDOT, and most recently the adoption of silvopasture systems by Minnesota landowners. He has collaborated with a number of state agencies and non-governmental organizations as well as farmers and farmer groups.

**Organization:** U of MN - College of Food, Agricultural and Natural Resource Sciences

**Organization Description:**

CINRAM is a partner based organization which combines the expertise of researchers at the UMN with the expertise of landowners and organizations across the landscape in support of more sustainable, resilient, and profitable natural resources management systems that generate benefits for landowners while generating ecosystem benefits for society. CINRAM has been working with landowners, state and federal agencies, local landowners and non-profit organizations for the past 25 years.

CINRAM's partners and funders include but are not limited to, the National Agroforestry Center (NRCS/Forest Service), USDA, MNDNR, the Sustainable Farming Association of Minnesota, and local SWCD's, watershed districts and farmers and landowners managing important natural resources in the state.

As a partner-based organization based at the University of Minnesota, CINRAM is able to draw upon the expertise of researchers from a number of disciplinary backgrounds necessary for specific projects as well as the existing and new partner organizations with specific experience and experience with specific issues being addressed through a project. We believe that the voice of the landowner/farmer is important to hear and they have specific expertise to address issues and encounter solutions.

## Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
<b>Personnel</b>								
Project Manager		Manage project, reporting, administration and coordination with project team and supervision of graduate student			33.5%	0.75		\$75,000
Graduate research assistant		Carry out research on payments for conservation services for private woodland owners and prepare a final report. Prepare and publish a guide for ecosystem service payments for private woodland owners. Assist with information gathering for and preparation of landowner case studies.			54%	1		\$90,000
Forestry extension educator		Assist with designing the protocol for the woodland owner cases/stories, selecting landowners to be interviewed, carrying out the interviews, and organizing and participating in the woodland owner gatherings. The educator will be responsible for establishing programming within forestry extension to maintain the effort beyond the end of the project.			33.5%	1.5		\$181,000
							<b>Sub Total</b>	<b>\$346,000</b>
<b>Contracts and Services</b>								
Minnesota Forestry Association (MFA)	Sub award	MFA will assist with designing the protocol for the woodland owner cases/stories, selecting landowners to be interviewed, carrying out the interviews, and organizing and participating in the woodland owner gatherings. They will also assist with providing technical assistance to private woodland owners.				1.5		\$60,000
Sustainable Farming Association of Minnesota (SFA)	Sub award	SFA will assist with designing the protocol for the woodland owner cases/stories, selecting landowners, carrying out interviews, and organizing and participating in the woodland owner gatherings. SFA will also provide technical assistance and follow up visits to woodland owners interested in managing their woodlands.				2.25		\$105,000
UMN-Duluth NRRRI	Sub award	Development of : 1) a website housing the mapping application and content about project.; 2) basic interactive mapping application to provide access to				0.57		\$70,000



		case studies of landowners implementing forest management activities; and 3) a user interface for uploading and displaying case studies. Develop peer to peer networking programming.						
							<b>Sub Total</b>	<b>\$235,000</b>
<b>Equipment, Tools, and Supplies</b>								
							<b>Sub Total</b>	-
<b>Capital Expenditures</b>								
							<b>Sub Total</b>	-
<b>Acquisitions and Stewardship</b>								
							<b>Sub Total</b>	-
<b>Travel In Minnesota</b>								
	Miles/ Meals/ Lodging	120 trips (avg. 300 miles/trip @ \$0.585/mile) plus 10 overnight stays @ \$144/stay	We are estimating approximately 100 trips to gather data for case studies/stories. That activity would include interviews, video recordings, picture taking and return trips to verify data. We are also planning 20 tirips (5 gatherings x 4 project personnel) for woodland owner gatherings. We are also estimating 10 overnight trips @ \$144 for meals/lodging and incidentals.					\$23,000
							<b>Sub Total</b>	<b>\$23,000</b>
<b>Travel Outside Minnesota</b>								
							<b>Sub Total</b>	-
<b>Printing and Publication</b>								

	Publication	This would include preparing and printing copies of the volume of 45 case studies and the landowners guide to woodland payments for environmental services. We would print 400 copies of the woodland owner volume and 400 copies of the woodland owners guide to carbon credits. Total cost includes preparing for printing and distribution costs.	Disseminate timely information to private woodland owners and natural resource professionals through a distribution list and at woodland owner gatherings.						\$6,000
								<b>Sub Total</b>	<b>\$6,000</b>
	<b>Other Expenses</b>								
								<b>Sub Total</b>	-
								<b>Grand Total</b>	<b>\$610,000</b>

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	-

## Attachments

### Required Attachments

#### *Visual Component*

File: [3e0bdf9-cde.pdf](#)

#### *Alternate Text for Visual Component*

These are screenshots from the Farmmaps app which will serve as a model for the new case studies that will be displayed on the internet and accessible from a smartphone to private woodland owners interested in learning about the experiences of other landowners and potentially contact them for advice....

### Optional Attachments

#### *Support Letter or Other*

Title	File
MFA Support Letter	<a href="#">986e0306-827.pdf</a>
SFA Support Letter	<a href="#">17200f53-fd3.pdf</a>

## Administrative Use

**Does your project include restoration or acquisition of land rights?**

No

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

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?**

Yes, Sponsored Projects Administration

# Farmmaps – A model for development of Private Woodland Management Case studies

The screenshot shows the Farm Maps website interface. The main area is a map of Minnesota and surrounding states (North Dakota, South Dakota, Wisconsin, Iowa) with numerous farm locations marked by colored icons. A sidebar on the right contains a search bar, a filter for 'Soil Health', and a list of case studies. The case studies listed are:

- Ted Kornder**: Distance: 36.2 miles. Buttons: DETAIL, ON MAP, DIRECTION.
- David Woesthoff**: Distance: 40.9 miles. Buttons: DETAIL, ON MAP, DIRECTION.
- Living Song Farm**: 7616 25th St SW, Howard Lake, MN 55349. Distance: 43.0 miles. Buttons: DETAIL, ON MAP, DIRECTION.
- Regeneration Farms**: Distance: 43.7 miles. Buttons: DETAIL, ON MAP, DIRECTION.

The screenshot shows a detailed profile for Scott Haase. The profile includes a photo of Scott Haase in a field, a link to a PDF titled 'HAASE PDF', and several sections of text:

- Practice**: Scott grew up on a farm but really started to become passionate about food when he was in college. He worked in a restaurant, which made him more interested in health and nutrition. He began to think about self-reliance and freedom that comes with producing food, and also began thinking about how much energy there is in ecosystems. If we tip the energy balance in our favor, we can efficiently produce crops while caring for the environment.
- Farm size**: 1400 acres.
- Main source of income**: Corn, soybeans.
- Markets**: Scott sells his corn and soybeans to the local elevator.
- Environmental benefits**: Scott emphasizes the ecological benefits of his practices. These environmental improvements also help the farm operation by increasing the soil structure, soil organic matter content, and infiltration. He has also been able to start cutting back on fertilizer due to the increase in natural soil nutrients.
- Economic benefits**: Reducing tillage has saved fuel and labor costs for Scott.
- Reason for transitioning**: Scott began adopting soil health practices as a way to improve the self-reliance and flexibility of his operation.
- Challenges**: (Section header visible, but no text provided).

FarmMaps and the proposed ForestMaps internet and smartphone-based apps allow landowners to learn about other landowner experiences with the adoption of more sustainable land use practices, connect to discuss issues and benefits of a practice, and learn how to implement the practice from a landowner perspective. Landowner to landowner networking is an effective means to achieve greater adoption of more sustainable land management practices.