



Environment and Natural Resources Trust Fund

2024 Request for Proposal

General Information

Proposal ID: 2024-119

Proposal Title: T64NR4E- PLS Corner Restoration

Project Manager Information

Name: Wayne Hensche

Organization: Cook County

Office Telephone: (218) 387-1172

Email: etoile@boreal.org

Project Basic Information

Project Summary: Restoration of 90 PLS land/protracted corners in 12 sections of T64N R4E, 4th PM, Cook Co. No corners presently exist in the entire area negating any safe environmental practices

Funds Requested: \$165,000

Proposed Project Completion: June 30, 2025

LCCMR Funding Category: Small Projects (H)

Secondary Category: Foundational Natural Resource Data and Information (A)

Project Location

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

Region(s): NE

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

Region(s): NE

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.

The original 1879 GLO surveyor was clearly incompetent typically leaving one mile measured segments 700-800 feet SHORT. Not one corner in the 12 section area has ever been reliably recovered. Landowners and government agencies have resorted to compass and pacing out parcel boundaries causing chaos in nearly ALL the boundaries therein. A missing section corner affects 4 sections, A lost meander corner can put lakeshore ownership/frontage in question. It appears forestry technicians have made recent best guesses as to boundaries and now those unfounded timber boundaries are being used. No surveyors will work in the area. Past efforts have failed searching for corners that may be 7-800 feet away deep in the woods or in swamps.

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.

Apply federal and state rules for the restoration of lost or obliterated corners and subdivision of sections, apply the 2009 BLM Manual of Surveying Instructions and Minnesota case law together with use of the best available evidence to restore the entire public land survey in the broken project area. Each missing corner will be assessed from evidence gathered in all four directions therefrom yielding a best and fair fit to all parties. When corners are truly lost, proportion methods allowed under state and federal rules will be applied to treat all stakeholders equally. I can draw on about 45 years of federal and private experience with this original surveyor and close to this immediate area. I can search and recover 100+ year old scribed wood posts and bearing trees. Using a microscope, I can determine the tree variety of numerous recovered decayed specimens, which is unusual for most practicing surveyors. I had a recovery success rate of original evidence in my most recent township size project of about 38% which points to distinct abilities, especially in swamps. The project will be extremely difficult since the county surveyor in 1914 noted the area had been ravaged by wildland fire.

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?

The chaos of the existing unsurveyed, best guess boundaries of stakeholders prevents any of them from applying best management practices on their lands. Private and government parcels resist spending funds on lands they may not even own. The US Forest Service has a few holdings but refer to this area as the "Pigeon River Purchase Unit"... and are very reluctant to spend resources to manage their lands in the area. Even if a party does put environmental improvement(s) on the land, deemed folly by some, they simply invite litigious trespass. Certainly of boundaries will foster caring for the land

Activities and Milestones

Activity 1: Activity One: Records Research

Activity Budget: \$20,000

Activity Description:

PLSS remonumentation requires extensive research prior to commencing work. The county surveyor will collect General Land Office, BLM, CCC, WPA, US Forest Service, MN DNR forestry, paper company, railroad, USGS traverse party, highway department, county/ private surveyor and GIS records spanning the last 150 years +/- . Aerial photography will be scrutinized since the 1930's to search for land use patterns. With this information, the surveyor can thoroughly determine multiple corner search areas and professionally ensure proper thorough analysis be undertaken

Activity Milestones:

Description	Approximate Completion Date
Preliminary Research	July 31, 2023
Preliminary corner certificates	August 31, 2023

Activity 2: Activity 2: Field Search and Monumentation

Activity Budget: \$85,000

Activity Description:

A thorough field search for corner evidence and final monumentation of the PLSS positions. The goal is to restore the corner position, including synthesis of all, sometimes conflicting evidence, to make sure the final corner position withstands the tests of time.

The original corner evidence typically holds over uncertain testimony, unless the source has impeccable local and reliable information. The records help sift through all plausible solutions but cannot trump an actual site visit. Once on site, one can verify nearby natural feature calls to determine if they fall within a small mathematical locus of land and are not at variance with evidence of a higher order.

A retracement survey also ties in other existing monuments, occupation lines, local testimony, unrecorded documents, etc. to gain a complete synthesis of the facts. If one changes even one seemingly unsequential fact, corner locations may need to be adjusted to protect the bona fide rights of the stakeholders

Activity Milestones:

Description	Approximate Completion Date
Verify known corners	September 30, 2023
Initial search for unknown corners	October 31, 2023
Natural feature calls, testimony, and occupation lines verified	October 31, 2023
Final determination and monumentation	May 31, 2024

Activity 3: Activity 3: Corner Certification

Activity Budget: \$60,000

Activity Description:

A Certificate of Corner Location must be filed for every PLSS corner restored and/or monumented as per MSA 381. This shall be a comprehensive document relating location, monumentation, perpetuation, and history of a PLS corner. The certificates are to be recorded with the county recorder. Often, precise coordinate values must also be reported on the

document. A full survey document must also be recorded and given a document number. Typically, the county board and/or county attorney has to review the county surveyor documents before recordation. Cook County has an active GIS property layer referred to as "Survey Explorer" which is a successful on line pilot data base used by the public and staff. The county surveyor, in a collaborative effort with the GIS department have made this an often used, unique public benefit. Some of the data has been incorporated into state and federal agency GIS. Coordinate values will be provided the US Forest Service and the MN DNR as well. Each certificate is extremely exacting and getting the history correct can easily take a full office day for each of 50+ certificates

Activity Milestones:

Description	Approximate Completion Date
Create preliminary corner certificates	August 31, 2023
Preliminary survey drawing	August 31, 2023
Final Corner Certificates	May 31, 2024
Final Certificate of Survey	June 30, 2024

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?

2 corner remonumentation bills are currently being reviewed by the 2023 legislature. We have other pressing corner concerns in the county- ie. 1) expansion of the Lutsen Ski Hill which is receiving considerable public scrutiny. 2) Our county has thousands of PLS corners without proper reference objects and will easily fall into disrepair without remonumentation funds. T64NR4E is in a more remote part of the county, and it is highly probable this area will not garner continued support. If this LCCMR proposal fails, it is highly likely this area will fade in priority, despite near broken infrastructure.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Improving Statewide GIS Data by Restoring the Public Land Survey	M.L. 2019, First Special Session, Chp. 4, Art. 2, Sec. 2, Subd. 03m	\$135,000

Project Manager and Organization Qualifications

Project Manager Name: Wayne Hensche

Job Title: Cook County Surveyor (contract - no salary or benefits)

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

25 years as county surveyor, 20+ years federal cadastral surveyor US Forest Service, & 40 years private surveyor all in cook county, mn

Organization: Cook County

Organization Description:

County land services, planning and zoning- Tim Nelson Director 218-387-3630 tim.nelson@co.cook.mn.us

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
							Sub Total	-
Contracts and Services								
County Surveyor	Professional or Technical Service Contract	Records research and field work and final recordable documentation + administration				2		\$161,000
Supplies	Professional or Technical Service Contract	Project corner monuments, ribbon, measuring tapes, bearing tree tags				0.04		\$4,000
							Sub Total	\$165,000
Equipment, Tools, and Supplies								
							Sub Total	-
Capital Expenditures								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
							Sub Total	-
Travel Outside Minnesota								

							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
							Sub Total	-
							Grand Total	\$165,000

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				
Cash	None	N/A	Potential	-
			State Sub Total	-
Non-State				
			Non State Sub Total	-
			Funds Total	-

Attachments

Required Attachments

Visual Component

File: [8206aa5d-efe.pdf](#)

Alternate Text for Visual Component

Project area pdf...

Board Resolution or Letter

Title	File
LCMMR pg2cookcoPLSS resolutionfinal.docx	4a9b2b1c-142.docx

Optional Attachments

Support Letter, Photos, Media, Other

Title	File
Blow-up site image	86ca56b2-310.pdf

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, Cook County

Does your project include the design, construction, or renovation of a building, trail, campground, or other capital asset costing \$10,000 or more?

Yes

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?

No