

**Environment and Natural Resources Trust Fund**

# 2021 Request for Proposal

## **General Information**

**Proposal ID:** 2021-214

**Proposal Title:** Emergency Location Markers for Minnesota's Trails, Parks & Landings.

## **Project Manager Information**

**Name:** Brian Huberty

**Organization:** SharedGeo

**Office Telephone:** (651) 285-5015

**Email:** bhuberty@sharedgeo.org

## **Project Basic Information**

**Project Summary:** Accelerate the installation of Emergency Location Markers-ELM throughout the state, county and tribal land recreation areas to help the public find and relay their emergency location accurately in remote areas.

**Funds Requested:** $130,000

**Proposed Project Completion:** 2023-06-30

**LCCMR Funding Category:** Small Projects (H) **Secondary Category:** Environmental Education (C)

## **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.**

Numerous backcountry Search and Rescue incidents over the years have highlighted that the public has difficulty in remote areas communicating location quickly and accurately to first responders. In addition to cell phones still having limited triangulation capability in remote areas, there are multiple (thus confusing) latitude/longitude formats. This project will accelerate use of a Department of Homeland Security and National Search and Rescue Committee (NSARC) emergency location communication standard - U.S. National Grid (USNG) - by helping state, county and tribal land and recreational management organizations place USNG Emergency Location Markers (ELM) at strategic locations such as boat ramps, trail junctions, and campgrounds. Installation of USNG Emergency Location Markers has already been implemented in a variety of recreational locations across the country such as NASA's Cape Canaveral, Kennesaw Mountain Battlefield National Park, many locations in the State of Iowa, and here in Minnesota with Cook, Dakota and Lake counties. Here are YouTube Videos describing some of these ELM installs: 1) Cook County, MN - https://youtu.be/wg7DOAXphk0; 2) Lake County, MN - https://youtu.be/mvw3u2M9JZ0; 3) Cobb County, Georgia - https://youtu.be/BHHsp7zqnz0

**What is your proposed solution to the problem or opportunity discussed above? i.e. What are you seeking funding to do? You will be asked to expand on this in Activities and Milestones.**

SharedGeo will provide the training to local land managers and local first responders using materials already developed by SharedGeo at the www.usngcenter.org website. Land managers and first responders will then identify optimal locations to place ELM markers. SharedGeo will then have ELM signs made and shipped to the land managers for installation. An in-kind labor program is proposed to seek proposals from around the state for installing signs. ENRTF funds will be used by SharedGeo for training, purchasing and shipping signs. It will then be up to the local land managers for installation and maintenance.

**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?**

Our state's natural resources will be better conserved by the recreating public where they can feel safe to relay accurate locations to first responders as they are out on Minnesota's public lands and waters. This will help land, forest, wildlife and water managers, conservation officers, firefighters and law enforcement personnel respond more quickly to situations. In addition, damages to our natural resource infrastructure - trails, boat landings, bridges, etc. - can be more easily located and reported for repair.

## **Activities and Milestones**

### **Activity 1: U.S. National Grid and Emergency Locator Markers Training**

**Activity Budget:** $105,000

**Activity Description:**On-site regional training one day workshops (3-6) with additional on-line webinars (5-10). This would include working with first responders, recreational user groups, and managers for parks, forests, trails, and aquatic environments to review the USNG ELM system and identify key, strategic locations for Emergency Location Marker placement.

**Activity Milestones:**

|  |  |
| --- | --- |
| **Description** | **Completion Date** |
| Present on-site and virtual workshops around the state | 2022-01-31 |
| Request for funding from land and water managers | 2022-04-30 |
| Select proposed projects | 2022-05-31 |

### **Activity 2: US National Grid Emergency Location Marker manufacturing and shipping**

**Activity Budget:** $25,000

**Activity Description:**By August 31, 2022, all ELM signs will have been manufactured and shipped to the partners for installation by June 30, 2023. The amount budgeted is for an estimated 1000 signs @ $25/sign.

**Activity Milestones:**

|  |  |
| --- | --- |
| **Description** | **Completion Date** |
| Place and ship sign orders | 2022-08-31 |
| Complete follow up orders for bad or damaged signs by March of 2023 | 2023-03-31 |
| Installation of ELMs complete | 2023-06-30 |

## **Project Partners and Collaborators**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Organization** | **Role** | **Receiving Funds** |
| Recreational User Groups | Non-profit Recreational User Groups across Minnesota | Various outdoor associations such as snowmobile, bicycle, hiking, hunting, and watercraft groups receive training on the ELM system. Where appropriate, they will place and maintain ELM signs at strategic locations in coordination with the representative land owners. | No |
| Emergency Services Sector: conservation officers, law enforcement, EMS, firefighters | First responders | Receive Training on the USNG and how ELM System works. | No |
| Tribal Lands Departments | Minnesota Tribes | Receive training on the ELM system. Place and maintain Emergency ELM signs at strategic tribal recreation, land and waterway locations. | No |
| Parks & Trails, Forestry, Ecology and Waters, Fish & Wildlife Divisions | Minnesota Department of Natural Resources | Receive training on the ELM system. Place and maintain Emergency ELM signs at strategic state trails, parks, forests, waterways and other locations. | No |
| Minnesota County Lands and Parks Departments | Minnesota Counties | Receive training on the ELM system. Place and maintain Emergency ELM signs at strategic county park and land locations | No |

## **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 be funded?**Dakota, Lake and Cook Counties have already implemented USNG ELM starting nearly a decade ago. It is envisioned the ENRTF grant will help accelerate adoption and expansion to the rest of the state once an initial installation is established. It is envisioned recreational user groups will take over through federal trails programs and county resources.

## **Project Manager and Organization Qualifications**

**Project Manager Name:** Brian Huberty

**Job Title:** US National Grid Emergency Location Marker Project Manager

**Provide description of the project manager’s qualifications to manage the proposed project.**The project manager was given the first USNG briefing by Capt. Tom Terry in the late 1990's.   
Started using GPS in 1990! Managed GPS PLGR access and use for USDA NRCS for the Midwest Region  
Provides Remote Sensing Support to the MGAC Emergency Planning Committee: http://www.mngeo.state.mn.us/committee/emprep/  
Started and managed the $3.5 million dollar binational Great Lakes Restoration Initiative - Remote Sensing projects  
The project manager has extensive wilderness navigation experience using only maps, aerial photos and a compass. This was gained as an inventory forester for the MN DNR in the 1980's .

**Organization:** SharedGeo

**Organization Description:**SharedGeo was founded as a 501 c3 non-profit in September 2008 as a way to advance the use of mapping technologies and share geographic data in support of environmental disaster response and relief operations in the United States. Since 2008, SharedGeo has expanded its geospatial support roles in a wide variety of applications including: producing higher accuracy COVID-19 maps for the U.S. ( https://www.sharedgeo.org/COVID-19/ ) establishing the U.S. National Grid Center (https://usngcenter.org/ ), and the Great Lakes Restoration Initiative for the U.S. Fish & Wildlife Service (https://www.sharedgeo.org/portfolio-item/glri/).

## **Budget Summary**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category / Name** | **Subcategory or Type** | **Description** | **Purpose** | **Gen. Ineli gible** | **% Bene fits** | **# FTE** | **Class ified Staff?** | **$ Amount** |
| **Personnel** |  |  |  |  |  |  |  |  |
| Brian Huberty |  | Project Manager & Instructor |  |  | 20% | 0.5 |  | $30,000 |
| Dr. Nancy Read |  | Administrator |  |  | 20% | 0.2 |  | $7,000 |
| Steve Swazee |  | Instructor |  |  | 20% | 0.5 |  | $30,000 |
| Bob Basques |  | Instructor |  |  | 20% | 0.5 |  | $30,000 |
|  |  |  |  |  |  |  | **Sub Total** | **$97,000** |
| **Contracts and Services** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | **Sub Total** | **-** |
| **Equipment, Tools, and Supplies** |  |  |  |  |  |  |  |  |
|  | Tools and Supplies | 1000 Emergency Location Marker Signs $25/sign delivered, $25000 total | Manufacture and shipping of ELM signs |  |  |  |  | $25,000 |
|  |  |  |  |  |  |  | **Sub Total** | **$25,000** |
| **Capital Expenditures** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | **Sub Total** | **-** |
| **Acquisitions and Stewardship** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | **Sub Total** | **-** |
| **Travel In Minnesota** |  |  |  |  |  |  |  |  |
|  | Miles/ Meals/ Lodging | USNG ELM Workshops | Workshops for explaining, locating and installing Emergency Location Marker signs |  |  |  |  | $8,000 |
|  |  |  |  |  |  |  | **Sub Total** | **$8,000** |
| **Travel Outside Minnesota** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | **Sub Total** | **-** |
| **Printing and Publication** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | **Sub Total** | **-** |
| **Other Expenses** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | **Sub Total** | **-** |
|  |  |  |  |  |  |  | **Grand Total** | **$130,000** |

### **Classified Staff or Generally Ineligible Expenses**

|  |  |  |  |
| --- | --- | --- | --- |
| **Category/Name** | **Subcategory or Type** | **Description** | **Justification Ineligible Expense or Classified Staff Request** |

### **Non ENRTF Funds**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **Specific Source** | **Use** | **Status** | **Amount** |
| **State** |  |  |  |  |
| In-Kind | Existing State, County and Tribal sign infrastructure installation and repair programs. | State, County and Tribal land managers will contribute their time and tools to install ELM signs at their designated locations. This may be done as part of their on-going sign installation and repair programs. | Secured | $50,000 |
|  |  |  | **State Sub Total** | **$50,000** |
| **Non-State** |  |  |  |  |
|  |  |  | **Non State Sub Total** | **-** |
|  |  |  | **Funds Total** | **$50,000** |

## **Attachments**

### **Required Attachments**

#### ***Visual Component***

File: [7680fe0c-557.pdf](https://lccmrprojectmgmt.leg.mn/media/map/7680fe0c-557.pdf)

#### ***Alternate Text for Visual Component***

The USNG ELM poster fromthe 2019 MN GIS/LIS Conference

#### ***Financial Capacity***

File: [605321f5-f5f.pdf](https://lccmrprojectmgmt.leg.mn/media/financial_capacity/605321f5-f5f.pdf)

#### ***Board Resolution or Letter***

|  |  |
| --- | --- |
| **Title** | **File** |
| SharedGeo Board of Directors Approval Letter | [1349d0ea-b73.pdf](https://lccmrprojectmgmt.leg.mn/media/attachments/1349d0ea-b73.pdf) |

## **Administrative Use**

**Does your project include restoration or acquisition of land rights?**   
 No

**Does your project have patent, royalties, or revenue potential?**   
 No

**Does your project include research?**   
 No

**Does the organization have a fiscal agent for this project?**   
 No