

**Environment and Natural Resources Trust Fund
2020 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 046-A

Web-based Natural Resource Information Network Model

Category: A. Foundational Natural Resource Data and Information

Sub-Category:

Total Project Budget: \$ 400,000

Proposed Project Time Period for the Funding Requested: June 30, 2023 (3 yrs)

Summary:

This collaborative project will create a web-based application and network that will serve as a model for natural resource information collection, management and sharing across the public and private sectors.

Name: Alan Singer

Sponsoring Organization: Dakota County

Job Title: _____

Department: _____

Address: 14955 Galaxie Ave

Apple Valley MN 55124

Telephone Number: (952) 891-7001

Email al.singer@co.dakota.mn.us

Web Address: www.dakota.co.mn.us

Location:

Region: Metro

County Name: Dakota, Hennepin, Washington

City / Township: Multiple

Alternate Text for Visual:

NA

| | | | |
|--------------------------|-------------------------|-----------------------------|----------------------|
| _____ Funding Priorities | _____ Multiple Benefits | _____ Outcomes | _____ Knowledge Base |
| _____ Extent of Impact | _____ Innovation | _____ Scientific/Tech Basis | _____ Urgency |
| _____ Capacity Readiness | _____ Leverage | _____ TOTAL | _____ % |



PROJECT TITLE: Web-based Natural Resource Information Network Model

I. PROJECT STATEMENT

The overall goal of this collaborative project is to create a web-based application and network that will serve as a model for natural resource information collection, management and sharing within and across partner organizations with increased access by the general public and private landowners. Specifically, this project will initially focus on natural resource information for Dakota, Hennepin and Washington counties.

Easily accessible, up-to-date, relevant, comprehensive, and reliable information is critical for planning, prioritizing, implementing, and assessing natural resource protection and restoration projects. Natural resources, watersheds, and parks often transcend political boundaries while adjoining counties and cities usually have different information systems, different levels and types of information, and varied capacity to share data with each other. Although there is growing availability of publically supported natural resource data, there is limited capacity for natural resource professionals to access and share proprietary and other datasets imperative for natural resource planning and prioritization. The general public and private landowners often cannot access or contribute to this information. The expanding number of natural resource-oriented web-sites provides important general information, but these sites and links could potentially be utilized in a more effective manner.

Partners will assess the available natural resource information to prioritize information needs and sources and identify gaps. Partners will determine the technological feasibility and options to effectively utilize/link information sources for both internal county use and external use by cities, townships, SWCDs, watershed districts, schools, organizations, general public and consultants,. Key components will be internally managing data to track and assess natural resource restoration efforts and facilitate increased citizen science efforts to utilize and contribute important, contemporary information. Protocols and policies for collecting and distributing information with necessary security measures, robust analytic opportunities, and a governance and sustainable operational model for long-term network viability will be developed.

Dakota, Hennepin, and Washington counties were chosen as the framework for the network since they represent diverse and complex landscapes, have demonstrated conservation leadership, have proven capacity and experience, often coordinate, and are responsible for broad natural resource planning and implementation efforts.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1 Title: Inventory and Complete Gap Analysis of Existing Natural Resource Information

Description: Partners will inventory and assess available natural resource information, sources, and platforms to compile a collective inventory. Gaps, conflicts, and issues will be identified. Information types and sources will be prioritized. A contractor will be hired to assess existing natural resource websites to determine feasibility of information-sharing and technological considerations. Preliminary recommendations will be developed and shared with selected potential users for refinement.

Activity 2 Title: Technological Design Development

Description: Contracted software designers will be hired to design an information network that meets the preferred requirements of the three counties for archiving, inputting, updating, securing,



**Environment and Natural Resources Trust Fund (ENRTF)
2020 Main Proposal Template**

accessing, and sharing information across potential user groups.

Activity 3 Title: Develop Policies, Protocols and Governance for New Network

Description: Partners will inventory existing website policies and information protocols for collecting updating, managing, and sharing information, including linkages to selected websites; and providing information for different purposes and different users. Governance and operational options for maintaining the network will be developed, evaluated and established.

Activity 4 Title: Launch, Test and Implement New Network

Description: The recommended network model will be beta-tested internally, refined and then tested externally among selected users and web sites for use and evaluated for necessary refinements.

ENRTF BUDGET: \$400,000

| Outcomes | Completion Date |
|--|--------------------------|
| 1. Inventory and Gap Analysis of Existing Natural Resource Information | <i>December 31, 2020</i> |
| 2. Technological Design and Testing | <i>March 31, 2023</i> |
| 3. Network Policies, Protocols and Governance | <i>March 31, 2023</i> |
| 4. Network Model Established | <i>June 30, 2023</i> |

III. PROJECT PARTNERS AND COLLABORATORS:

- Carpenter Nature Center
- Dodge Nature Center
- Hennepin County
- Three Rivers Park District
- Washington Conservation District

IV. LONG-TERM IMPLEMENTATION AND FUNDING:

Until the network is designed, implemented and evaluated, it is difficult at this time to determine the most effective operator and operational needs, including funding for maintaining or even expanding the network. If the model proves to be successful, it may be more feasible to be operated by or for the State. There may also be opportunities to utilize data analytics to generate operational revenue.

V. SEE ADDITIONAL PROPOSAL COMPONENTS:

- A. Proposal Budget Spreadsheet**
- F. Project Manager Qualifications and Organization Description**
- G. Letter or Resolution**

Attachment A: Project Budget Spreadsheet
 Environment and Natural Resources Trust Fund
 M.L. 2020 Budget Spreadsheet

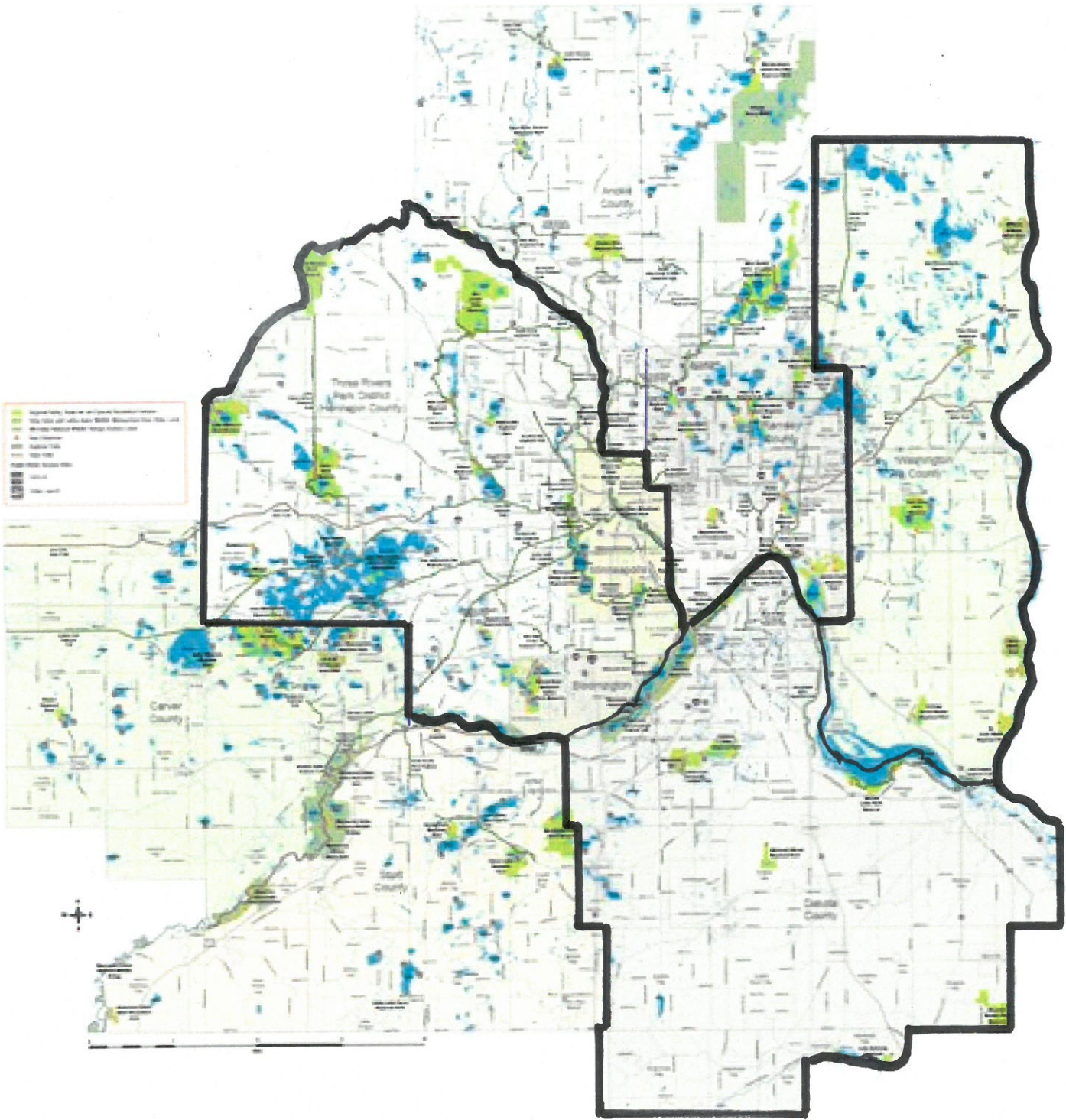


Legal Citation:
 Project Manager: Alan Singer
 Project Title: Web-based Natural Resource Information Network Model
 Organization: Dakota County
 Project Budget: \$400,000
 Project Length and Completion Date: Three years/June 30, 2023
 Today's Date: April 15, 2019

| ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET | | Budget | Amount Spent | Balance |
|---|--|------------|--------------|------------|
| BUDGET ITEM | | | | |
| Personnel (Wages and Benefits) | | \$ - | \$ - | \$ - |
| Professional/Technical/Service Contracts | | | | |
| It is estimated that two FTE software engineers at \$125,000/year will be required for two years. The partners will develop a competitive Request for Proposals and select the contractor to provide these services according to County bidding policies. The contract will also be administrated through County practices and standards. | | \$ 400,000 | \$ - | \$ 400,000 |
| Equipment/Tools/Supplies | | | | |
| | | \$ - | \$ - | \$ - |
| Capital Expenditures Over \$5,000 | | | | |
| | | \$ - | \$ - | \$ - |
| Fee Title Acquisition | | | | |
| | | \$ - | \$ - | \$ - |
| Easement Acquisition | | | | |
| | | \$ - | \$ - | \$ - |
| Professional Services for Acquisition | | | | |
| | | \$ - | \$ - | \$ - |
| Printing | | | | |
| | | \$ - | \$ - | \$ - |
| Travel expenses in Minnesota | | | | |
| | | \$ - | \$ - | \$ - |
| Other | | | | |
| | | \$ - | \$ - | \$ - |
| COLUMN TOTAL | | \$ 400,000 | \$ - | \$ 400,000 |
| SOURCE AND USE OF OTHER FUNDS CONTRIBUTED TO THE PROJECT | | | | |
| | Status (secured or pending) | Budget | Spent | Balance |
| Non-State: Dakota County (secured) | | \$ 50,000 | \$ - | \$ 50,000 |
| Non-State: Hennepin County (committed) | | \$ 50,000 | | |
| State: | | \$ - | \$ - | \$ - |
| In kind: Partner staff | | \$ 50,000 | \$ - | \$ 50,000 |
| Other ENRTF APPROPRIATIONS AWARDED IN THE LAST SIX YEARS | | | | |
| | Amount legally obligated but not yet spent | Budget | Spent | Balance |
| ML 2013 | | \$ 368,000 | \$ 218,612 | \$ - |

Web-based Natural Resource Information Network Model

Dakota, Hennepin and Washington Counties



Project Manager Qualifications for Alan Singer

1978 to 1991 Dodge Nature Center Interpretive Naturalist and Program Manager

- Teaching/facilitating 40,000 student visits and 10,000 adult and family participants per year
- Supervising ten staff and fifty adult volunteers

1991 to 1998 Minneapolis Park and Recreation Board Environmental Program Manager

- Development of first, comprehensive Environmental Policy for the Park Board
- Developing and implementing the master plan for Cedar Lake Park and Trail
- Development and implementation of a park system-wide reduced mowing initiative
- Manage the J.D. Rivers Outdoor Discovery Center and Eloise Butler Wildflower Garden
- Management or involvement in the following ENRTF-funded projects:
 - Urban Rangers
 - Longfellow House Interpretive Center
 - Multi-use Urban Green Space Project
 - Cedar Lake Trail

1998 to 2003 MN DNR Metro Greenways Coordinator

- Provided \$1M in 50:50 matching funds for planning projects involved over 70 partners in 60 cities and towns in the metro region
- Secured and expended \$10M of state funds that leveraged an additional \$17M of non-state funds for land protection and restoration throughout the region
- Manager of several ENRTF-funded Metro Greenways allocations and the initial Metro Wildlife/Conservation Corridors project

2003 to Present Dakota County Land Conservation Manager

- Managed the expenditure of more than \$22M of County funds to collaboratively protect more than 11,600 acres with a value greater than \$80M
- Program Manager for the 2008 ENRTF-funded “Vermillion River Corridor Acquisition and Restoration in Dakota County” project to develop comprehensive water quality, wildlife habitat and recreation plan for the Vermillion River in Scott and Dakota Counties

Dakota County Description

Dakota County is an ecologically diverse area bordered by the Minnesota, Mississippi and Cannon Rivers with almost the entire Vermillion River located within in its boundaries. Nearly 425,000 people live in the County that that is comprised of 14 fully developed and rapidly developing suburbs; six small, rural towns; and 13 mostly rural townships.

The County’s conservation efforts outside of its park system has been guided by the 2002 Farmland and Natural Areas Protection Plan which evolved into a comprehensive land conservation vision that integrates the regional park system; a 200-mile, multi-purpose greenway system; and natural area and farmland protection. In 2017 the County adopted a Natural Resource Management System plan as the foundation for significantly increasing restoration and enhancement of all County lands and easements. The County is currently developing an ambitious new Land Conservation Plan scheduled for adoption in early 2020.