

**Environment and Natural Resources Trust Fund
2017 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 011-A

Drainage Records Modernization – Phase II, Cost-Share

Category: A. Foundational Natural Resource Data and Information

Total Project Budget: \$ 540,000

Proposed Project Time Period for the Funding Requested: 3 years, July 2017 - June 2020

Summary:

2014 LCCCMR 05c project Phase 1 developed GIS database and guidance tools for public drainage records modernization. This Phase 2 project provides cost-share to drainage authorities, requiring minimum 1:1 match.

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Sponsoring Organization: Board of Water and Soil Resources

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Location

Region: Statewide

County Name: Statewide

City / Township:

Alternate Text for Visual:

Drainage Records Modernization – Phase 2, Cost-Share - Eligible 103E Drainage Authorities

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



PROJECT TITLE: Drainage Records Modernization – Phase 2, Cost-Share

I. PROJECT STATEMENT

1. *Project Need:* Minnesota has an estimated 21,000 miles of Minnesota Statutes Chapter 103E public drainage ditches (*Public Drainage Ditch Buffer Strip Study*, Feb. 2006), and estimated thousands of miles of Chapter 103E public subsurface tile systems. Drainage system records kept by the current 95 county and watershed district drainage authorities are in various conditions, including deteriorating hard copy materials and scanned documents with limited electronic access. Use of consistent GIS database capabilities are needed to advance local management of public drainage systems and to improve public access to statewide hydrographic data. Hydrographic data about the location, type (ditch or tile), dimensions and profiles of public drainage systems are often sought for watershed modeling and water planning, but have not been easily accessible. As hydrologic modeling and planning for multipurpose water management become increasingly robust, the need for this public drainage system hydrographic data will continue to increase.
2. *Project Goals:* The 2014 LCCMR 05c project titled “*Drainage Records Modernization and Statewide Geographic Information System Database*” was recommended and funded in part in 2014 (Phase 1). In calendar year 2016, the Phase 1 project is on track to:
 - a) develop a drainage records GIS database template with data standards for Chapter 103E drainage authority use, and a statewide GIS database for easy access to public drainage system hydrographic data in the Geospatial Commons on the Minnesota Geospatial Information Office (MnGeo) website;
 - b) update the *Drainage Records Modernization Guidelines* published by BWSR in September 2008;
 - c) develop associated web-based access for these tools; and
 - d) provide outreach to Chapter 103E drainage authorities about these new tools.

Drainage records database template development is based on experience from recent drainage records modernization projects and related pilot database development. This Phase 2 project will provide state cost-share matched at minimum 1:1 by non-state funding to complete the overall project utilizing the GIS database tools and guidance developed in Phase 1. Voluntary utilization of the Phase 1 products by drainage authorities in Phase 2 will advance local drainage records preservation and use for enhanced drainage system management and provide hydrographic data about these drainage systems in the statewide GIS database. The stakeholder Drainage Work Group has recommended public drainage records modernization.
3. *Methods:* Use of the Phase 1 database template and guidelines would be a requirement of the Phase 2 drainage records modernization grants to Chapter 103E drainage authorities, including agreement to annually provide drainage system hydrographic data updates electronically to the associated statewide GIS database. A non-state match of at least 1:1 would be required, with higher ranking priority given to applications that provide greater than 1:1 match.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1: Develop a Cost-Share Program and Allocate Grants with Agreements **Budget: \$12,000**

Outcome	Completion Date
1. FY 2018 cost-share program RFP developed, including eligibility, ranking criteria and associated policies	July – Aug. 2017
2. Drainage Records Modernization Cost-Share RFP distributed to Chapter 103E drainage authorities and outreach provided via an associated webinar	September 2017
3. Rank applications, recommend, review and approve grant allocations	December 2017



Environment and Natural Resources Trust Fund (ENRTF)
2017 Main Proposal
Project Title: Drainage Records Modernization – Phase 2, Cost-Share

4. Grantees prepare project work plans and budget details and BWSR Board Conservationists and Conservation Drainage Engineer review and approve	February 2018
5. Grant agreements are signed by grantees and BWSR	March 2018

Activity 2: Drainage Authorities Implement Cost-Share Grant Agreements, with MnGeo Technical Consultation and BWSR Oversight, and BWSR Surveys Drainage Authorities to Define Remaining Drainage Records Modernization Needs **Budget: \$528,000**

Outcome	Completion Date
1. <u>Cost-Shared products.</u> Chapter 103E Drainage authorities utilize the Phase 1 drainage records database template and Drainage Records Modernization Guidelines to <u>develop a modern database for their drainage system records and to annually provide current public drainage system hydrographic data to the statewide GIS database.</u> MnGeo provides technical consultation to drainage authority staff and/or consultants, and BWSR provides grant project oversight.	June 2020
2. BWSR conducts a survey of drainage authorities near the end of the project to define status and remaining needs for drainage records modernization and cost-share	June 2020

III. PROJECT STRATEGY

A. Project Team/Partners

Roles to be funded by sources other than ENRTF:

- *Tim Gillette, P.E., BWSR Conservation Drainage Engineer:* Project management, reporting and coordination.
- *Al Kean, P.E., BWSR Chief Engineer:* Administrative advice and consultation, based on prior drainage records modernization project experience.

Roles to be funded by requested ENRTF grant:

- *BWSR Drainage Program Staff, Grants Staff and Board Conservationists:* Assist cost-share program development, implementation, and oversight, as well as conduct a survey of drainage records modernization status and remaining needs near the end of the project.
- *Drainage Authority Project Managers:* Administer cost-share grants on behalf of drainage authorities.
- *Drainage Authority Staff and Consultants:* Develop modern databases for Chapter 103E drainage records and annually provide hydrographic and other data to the statewide public drainage records GIS database.
- *MNIT MnGeo Staff:* Provide consultation to cost-share grantees regarding use of the drainage records database template, guidelines, and hydrographic data transfer to the statewide GIS database.

B. Project Impact and Long-Term Strategy

This project builds on past efforts to modernize, preserve and better utilize public drainage system records, including improving availability of public drainage system hydrographic data statewide. The current estimated need for drainage records modernization cost-share remaining after this project is approximately \$1.0 million. However, BWSR will survey public drainage authorities near the end of this project to better define the status of public drainage records modernization, associated hydrographic data access, and need for additional cost-share. Use of the Phase 1 database template and guidelines is expected to substantially improve and streamline drainage records modernization. This estimate does not include costs associated with the long-term maintenance of the statewide drainage records database, guidelines and map viewer on the MnGeo website.

C. Timeline Requirements

BWSR will allocate cost-share grants to drainage authorities for drainage records modernization in the first year of the project. The project completion will be targeted to June 2020 (3 years).

2017 Detailed Project Budget

Project Title: Drainage Records Modernization - Phase 2, Cost-Share

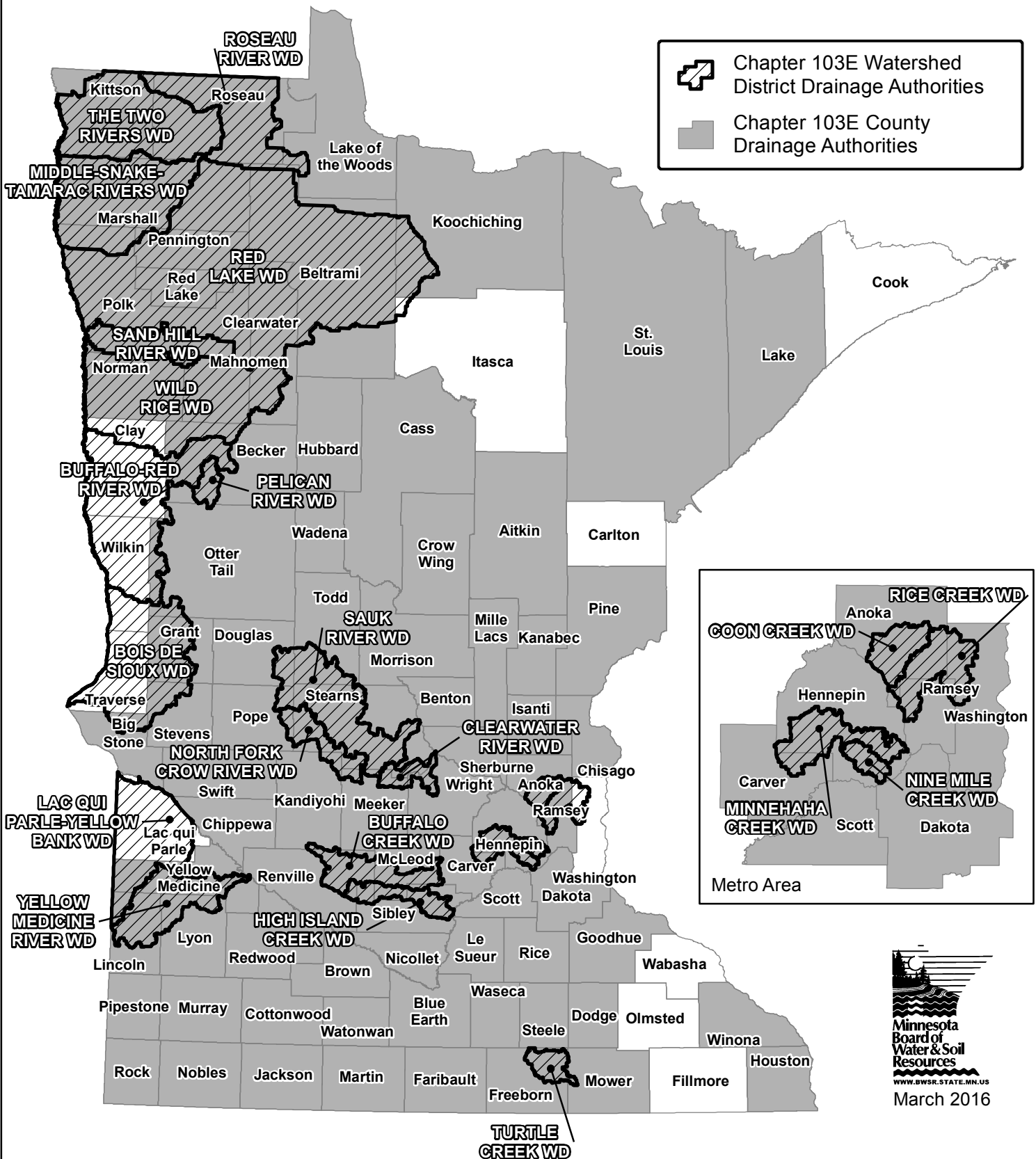
IV. TOTAL ENRTF REQUEST BUDGET: 3 years

<u>BUDGET ITEM</u>	<u>AMOUNT</u>
Personnel: <i>GIS Specialist, MnGeo: (70% salary, 30% benefits) Ave. 0.05 FTE/yr. for 3 yrs. (0.15 FTE) (\$16,000)</i> <i>Drainage, Grants and Board Conservationist Staff, BWSR: (70% salary, 30% benefits) Ave. 0.07 FTE/yr. for 3 yrs. (total 0.21 FTE) (\$24,000)</i>	\$ 40,000
Professional/Technical/Service Contracts: N/A	\$ -
Equipment/Tools/Supplies: N/A	\$ -
Acquisition (Fee Title or Permanent Easements): N/A	\$ -
Travel: N/A	\$ -
Additional Budget Items: Cost-share. BWSR will provide competitive drainage records modernization cost-share grants to Chapter 103E county and watershed district drainage authorities to use the new drainage records GIS database template, updated Drainage Records Modernization Guidelines, and web access developed by the 2014 LCCMR 05c project, Phase 1. Minimum 1:1 match will be required.	\$ 500,000
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 540,000

V. OTHER FUNDS

<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
Other Non-State \$ To Be Applied To Project During Project Period: Minimum 1:1 local match required for competitive drainage records modernization cost-share grants. (Note: \$500,000 of drainage records modernization cost-share grants allocated by BWSR in FY 2009 was matched by approximately \$1,000,000 of local cash and in-kind services.)	\$ 500,000	Pending
Other State \$ To Be Applied To Project During Project Period: N/A	\$ -	
In-kind Services To Be Applied To Project During Project Period: BWSR staff time for project management, reporting and coordination: (Average 2% Tim Gillette, 0.5% Al Kean / yr. for 3 yrs.) (salary, benefits, other OH)	\$ 10,000	Pending
Funding History: 2014 LCCMR 05c project. In FY 2015, BWSR received \$230,000 from ENRTF to develop a drainage records GIS database template, statewide GIS database, updated Drainage Records Modernization Guidelines, and web access. These Phase 1 products will be used by drainage authorities participating in this Phase 2, Cost-Share project.	\$ 230,000	
Remaining \$ From Current ENRTF Appropriation: 2014 LCCMR 05c project. In FY 2015, BWSR received \$230,000 from ENRTF for the purposes indicated in Funding History. As of 3-18-16, approximately \$122,500 was unspent, but legally obligated to be spent by 12-31-16.	\$ 122,500	Legally Obligated

Drainage Records Modernization – Phase 2, Cost-Share Eligible Chapter 103E Drainage Authorities



2017 LCCMR - Project Manager Qualifications and Organization Description

Project Title: Drainage Records Modernization – Phase 2, Cost-Share

Sponsoring Organization: Board of Water and Soil Resources

Project Manager Qualifications:

Mr. Timothy Gillette, P.E., is the Conservation Drainage Engineer for the Board of Water and Soil Resources (BWSR). Before coming to BWSR, his experience included practice as a civil engineer for urban and rural stormwater design and management. As a consultant to the Vice President of Student Affairs at Dakota County Technical College, he created the still running Civil Engineering Technician certification program. He taught the first two years of that program. As a consultant to FEMA, he helped multiple municipalities and non-profit organizations submit requests for damage repair reimbursement.

In his present position, Mr. Gillette has successfully managed and closed 3 Clean Water Fund grant programs that were running when he came to BWSR and has initiated and presently manages 3 separate Clean Water Fund grant programs providing in combination over \$5.5 million in competitive grants to local government units for conservation planning and implementation in the agricultural landscape.

Mr. Gillette has also successfully managed and filed final reports for an EPA Section 319 project: *Side Inlets to Improve Water Quality* (Total budget of \$621,100 including in-kind match) and the 2011 LCCMR project: *Conservation Based Approach for Assessing Public Drainage Benefits* (Total budget of \$200,000 including in-kind match). Mr. Gillette is presently managing the 2014 LCCMR project: *Drainage Records Modernization and Statewide GIS Database*, with a total budget of \$250,000 including in-kind match.

Organization Description:

The Minnesota Board of Water and Soil Resources consists of 20 members, including local government representatives that deliver BWSR programs, state agencies, and citizens. The board sets a policy agenda designed to enhance service delivery through the use of local government. Board members, including the board chair, are appointed by the governor to four-year terms.

The board is the state's administrative agency for 89 soil and water conservation districts, 46 watershed districts, 23 metropolitan watershed management organizations, and 80 county water managers.

The BWSR mission is to improve and protect Minnesota's water and soil resources by working in partnership with local organizations and private landowners. Core functions include implementing the state's soil and water conservation policy, comprehensive local water management, and the Wetland Conservation Act as it relates to private land in Minnesota.

BWSR facilitates the stakeholder Drainage Work Group and the interagency Drainage Management Team. BWSR has administered state cost-share for public drainage records modernization since 1997, as funding has been available. Therefore, BWSR is well positioned to lead this project.