

**Environment and Natural Resources Trust Fund
2011-2012 Request for Proposals (RFP)**

LCCMR ID: 088-C3+4

Project Title: Update 20-year-old Minnesota Public Drainage Manual

Category: C3+4. Technical Assistance and Community-Based Planning

Total Project Budget: \$ \$228,000

Proposed Project Time Period for the Funding Requested: 2 yrs, July 2011 - June 2013

Other Non-State Funds: \$ 0

Summary:

Update Minnesota Public Drainage Manual (1991) and Minnesota Public Drainage Law Overview for Decision-makers (2002) to enhance drainage water management statewide for flow control and improved water quality.

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Sponsoring Organization: Board of Water and Soil Resources

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Location

Region: Statewide

Ecological Section: Statewide

County Name: Statewide

City / Township:

<input type="checkbox"/> Funding Priorities	<input type="checkbox"/> Multiple Benefits	<input type="checkbox"/> Outcomes	<input type="checkbox"/> Knowledge Base
<input type="checkbox"/> Extent of Impact	<input type="checkbox"/> Innovation	<input type="checkbox"/> Scientific/Tech Basis	<input type="checkbox"/> Urgency
<input type="checkbox"/> Capacity Readiness	<input type="checkbox"/> Leverage	<input type="checkbox"/> Employment	<input type="checkbox"/> TOTAL <input type="checkbox"/> %

2011-2012 MAIN PROPOSAL

PROJECT TITLE: Update 20-year-old Minnesota Public Drainage Manual

I. PROJECT STATEMENT

The Minnesota Public Drainage Manual is a key reference document for implementation of state drainage law (Minnesota Statutes, Chapter 103E). The manual was published in 1991 to enable more consistent implementation of drainage law by public drainage authorities (counties and watershed districts) and their key advisors (attorneys, auditors, engineers, viewers), and to better inform drainage proponents about the interactions between drainage law and other applicable state and federal laws (e.g. WCA, Clean Water Act, Swampbuster). Implementing state drainage law is the responsibility of more than 100 counties and watershed districts having public drainage systems under their jurisdiction at this time, including approximately 21,000 miles of public drainage ditches. This project will help improve water management in Minnesota.

Since the Public Drainage Manual was published, a substantial number of revisions of Chapter 103E have been adopted by the Legislature addressing clarifications of drainage law, enhanced compatibility with conservation objectives and programs, and orderly transfer of drainage authority where urban areas expand into agricultural areas. Many of the recent updates of drainage law have been based on consensus recommendations of the Drainage Work Group, which involves more than 20 stakeholder associations, organizations, agencies and academic institutions facilitated by the Board of Water and Soil Resources. The Drainage Work Group has recommended updating the Public Drainage Manual, including adding a chapter about drainage system best management practices. The update of the Public Drainage Manual is to be web-based for improved accessibility and ease of future updates. A companion overview of drainage law for decisions-makers document, which was last updated in 2002, will also be updated.

The project outcome will be a current Minnesota Public Drainage Manual that enables more consistent and thorough implementation of drainage law and multi-purpose water management into the future, including information to support use of ditch buffers and other drainage management practices to improve water quality (Funding Priority C3). Associated outcomes include reduced soil erosion, reduced peak flows and reduced sediment transport to public waters (Funding Priority B1). Project activities include gathering input from users when planning the updates of the manual and providing outreach to users after the updates. This project will also consider outcomes of a current EPA Section 319 project titled "Drainage Systems Management Education and Stakeholder Feedback Workshops".

II. DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: Establish project team, contracts and advisory committees. Budget: \$6,000

BWSR will contract with the University of Minnesota, Water Resources Center (WRC) for this project and coordinate closely to establish the project team and advisory committees. Members of the stakeholder Drainage Work Group and the interagency Drainage Management Team, as well as other practitioners with relevant expertise, will be recruited to serve on advisory committees for 4 key Public Drainage Manual chapters, based on areas of expertise.

Outcome	Completion Date
1. Project team and associated contract(s) established	September 2011
2. Advisory committees established for key chapters, by area of expertise	October 2011

Activity 2: Define specific objectives for updates.

Budget: \$9,000

Key users of the Public Drainage Manual and the drainage law overview document will be consulted via focus groups and other methods to help clarify specific objectives for updates.

Outcome	Completion Date
1. Specific objectives for updates/creation of individual chapters defined	December 2011
2. Updated presentation style defined for improved readability / use	January 2012

Activity 3: Develop, coordinate review, and complete updates. Budget: \$205,000

Draft updates of Public Drainage Manual and drainage law overview document, coordinate review by advisory committees, complete the updates and place on the BWSR website.

Outcome	Completion Date
1. Draft updated Public Drainage Manual	July 2012
2. Review and input by advisory committees	September 2012
3. Completed update of Manual installed and tested on BWSR website	December 2012
4. Updated public drainage law overview for decision-makers	December 2012

Activity 4: Provide outreach to users about the updated Manual. Budget: \$8,000

Project team members will provide outreach about the updated Public Drainage Manual to the Drainage Work Group, Assn. of MN Counties annual meeting, MN Assn. of Watershed Districts annual meeting and at two other drainage management information and education venues.

Outcome	Completion Date
1. Outreach via presentation to Drainage Work Group	November 2012
2. Outreach via presentation at MAWD and AMC annual meetings	December 2012
3. Outreach at two additional drainage management info/ed venues	June 2013

III. PROJECT STRATEGY

A. Project Team/Partners

Roles to be funded by sources other than ENRTF:

- *Al Kean, P.E., Chief Engineer, BWSR:* Overall project management, oversight, coordination assistance and technical assistance.
- *Joel Peterson, P.E., Ph.D., Water Resources Engineer, BWSR:* Technical and coordination assistance for update of Engineering and Environmental Review chapter and development of new Drainage System Best Management Practices chapter.
- *Members of advisory committees:* Provide perspective, assistance, and review of drafts.

Roles to be funded by requested ENRTF grant:

- *Ann Lewandowski, Research Fellow, UMN WRC:* Lead production manager.
- *Sherry Enzler, J.D., Research Fellow, UMN DFR:* Lead researcher and writer for update of Administration and Legal Issues chapter.
- *Lawrence Woodbury, P.E., Ph.D.:* Lead or co-lead writer for update of Engineering and Environmental Review chapter.
- *Ron Ringquist, Appraiser/Viewer:* Lead advisor/writer for Viewing / Appraising chapter update.
- *Graduate Student, UMN:* Lead organizer/writer for new Drainage System Best Management Practices chapter, with assistance from the interagency Drainage Management Team.

B. Timeline Requirements

This project will begin on July 1, 2011 and be completed by June 30, 2013.

C. Long-Term Strategy and Future Funding Needs

This project is part of coordinated efforts of agencies, stakeholder groups, the UMN and others for improved drainage water management statewide to achieve multiple benefits, but does not involve known future ENRTF funding needs as part of a larger project. BWSR will maintain the updated documents on its website.

2011-2012 Detailed Project Budget

PROJECT TITLE: Update 20-year-old Minnesota Public Drainage Manual

IV. TOTAL TRUST FUND REQUEST BUDGET 2 years

<u>BUDGET ITEM</u>	<u>AMOUNT</u>
Personnel:	N/A
Contracts: University of Minnesota, Water Resources Center, to serve as the prime contractor to scope and conduct updates of the Minnesota Public Drainage Manual and the Minnesota Public Drainage Law Overview for Decision-makers, and to provide post-production outreach presentations to users of these documents.	\$226,000
Equipment/Tools/Supplies:	N/A
Acquisition (Fee Title or Permanent Easements):	N/A
Travel: Focus group meetings (estimate 3) in the agricultural areas of the state with users of the Minnesota Public Drainage Manual and Minnesota Public Drainage Law Overview for Decision-makers (drainage authorities, attorneys, auditors, engineers, viewers). Post-production outreach presentations at Minnesota Association of Watershed Districts Annual Meeting and Association of Minnesota Counties Annual Conference, as well as at two other drainage management information and education venues.	\$2,000
Additional Budget Items:	N/A
TOTAL ENVIRONMENT & NATURAL RESOURCES TRUST FUND \$ REQUEST	\$228,000

V. OTHER FUNDS

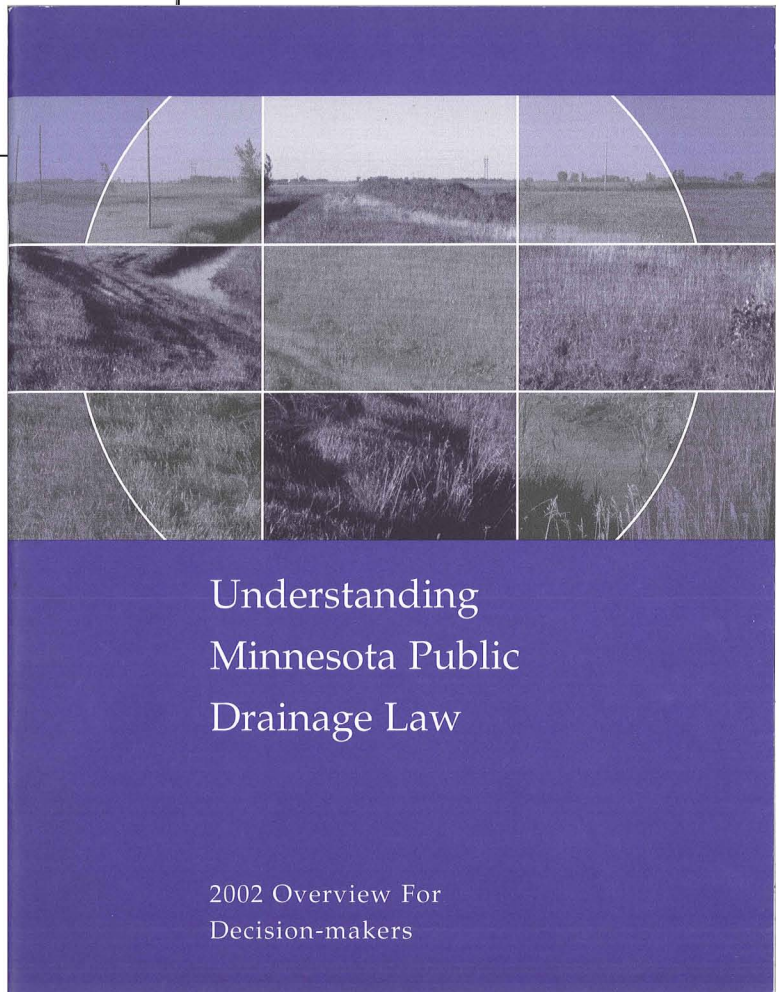
<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
Other Non-State \$ Being Applied to Project During Project Period:	N/A	
Other State \$ Being Applied to Project During Project Period:	N/A	
In-kind Services During Project Period: BWSR Staff Time: (5% Al Kean, 3% Joel Peterson) (salary, benefits, other OH)	\$20,400	Committed
Remaining \$ from Current ENRTF Appropriation (if applicable):	N/A	
Funding History:	N/A	

MINNESOTA PUBLIC DRAINAGE MANUAL



September 1991

These key documents help guide effective and consistent local administration of Minnesota public drainage law, but are outdated. This project will update these documents to reflect recent updates of Minnesota drainage law and to better address drainage water management for peak flow reduction, erosion control and water quality improvement.



Understanding Minnesota Public Drainage Law

2002 Overview For
Decision-makers

2011-2012 Project Manager Qualifications and Organizational Description

PROJECT TITLE: Update 20-year-old Minnesota Public Drainage Manual

Project Manager Qualifications

Allan Kean, P.E., serves as Chief Engineer and manager of the Technical Services Section at the Board of Water and Soil Resources. This role involves associated supervision, financial management and leadership. Mr. Kean has served as a section manager for BWSR since 1992.

Mr. Kean served as project manager and editor for preparation of the "*Public Drainage Ditch Buffer Study, February 2006*" and the "*Drainage Records Modernization Guidelines, September 2008*", which involved contracts with the University of Minnesota, Water Resources Center and the Minnesota State University, Mankato, Water Resources Center.

Since 2006, Mr. Kean has served as a facilitator of the stakeholder Drainage Work Group, which involves more than 20 associations, organizations, agencies and academic institutions having a focus on science-based mutual understanding and consensus recommendations regarding drainage policy and drainage management. He has facilitated associated consensus recommendations for updates of Minnesota drainage law and testified at legislative committee hearings on behalf of the Drainage Work Group regarding these recommendations.

As project manager, Mr. Kean will be responsible for oversight of project team and advisory committee establishment, help facilitate coordination with stakeholders, and ensure project completion within budget and on schedule.

Organizational Description

The mission of the Board of Water and Soil Resources is to: "Improve and protect Minnesota's water and soil resources by working in partnership with local organizations and private landowners". This project will support BWSR's mission by updating two key reference documents used by drainage authorities and their advisors for management of the extensive public drainage infrastructure throughout much of Minnesota's agricultural lands. Multi-purpose drainage management is a critical component of land use practices to improve water quality in Minnesota.

By statute, BWSR provides advisory review of watershed district engineers' reports, including reports for projects involving Chapter 103E public drainage systems. In addition to facilitating the stakeholder Drainage Work Group, BWSR also facilitates the interagency Drainage Management Team. The BWSR works with local government units for conservation, water quality, and wildlife habitat on private lands, as well as flood damage reduction, including work with watershed district and county drainage authorities. Therefore, the BWSR is well positioned to lead this project.