Environment and Natural Resources Trust Fund
2009 Phase 2 Request for Proposals (RFP)

LCCMR ID: 065-B3

Project Title: Minnesota Drainage Law Analysis and Evaluation

Total Project Budget: $ $423,054

Proposed Project Time Period for the Funding Requested: 2 years (July 2009 - June 2011)

Other Non-State Funds: $ $0.00

Priority: B3. Minnesota Drainage Law Analysis and Evaluation

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Sponsoring Organization: U of M

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Region: Statewide

County Name:

City / Township:

Summary: This study will clarify operation of Minnesota's drainage authorities and interaction with other water law, bench mark Minnesota's drainage laws, examine implementation of Minnesota drainage law and develop change strategies.

Main Proposal: 1008-2-065-proposal-Proposal.doc

Project Budget: 1008-2-065-budget-Budget.xls

Qualifications: 1008-2-065-qualifications-qualifications.doc

Map:

Letter of Resolution:

PROJECT TITLE: MINNESOTA DRAINAGE LAW ANALYSIS AND EVALUATION

I. PROJECT STATEMENT

Drainage of agricultural lands in Minnesota dates back to the mid-1800s. The State and counties became actively involved in drainage in 1897. The extent of drainage activity in the state has been cyclical with changing land values and cultural values. However, absent a handful of amendments, Minnesota's drainage laws have remained more or less unchanged for the past quarter of a century. The past decade has evidenced an increased interest in the intersection between Minnesota's drainage systems and the quality of Minnesota's lakes and streams. The Minnesota Statewide Conservation and Preservation Plan of 2008 recognized that sedimentation and nutrient loading are primary impairments of Minnesota's waters. Increases in sedimentation are believed to be related to an increase in annual precipitation and the hydrological modification of agricultural landscapes to river systems. Understanding the legal structure of Minnesota's drainage authorities, how they operate, and how they intersect with other water related federal and state legal authorities is paramount if we are to understand the impact of these authorities on the state's water quality. To meet this challenge requires an understanding of the operation of present legal authorities across changing landscapes including the strengths and weaknesses and costs and benefits of the existing drainage authority.

Project Goal: The primary goals of this project are

1. to develop an understanding of how Minnesota's drainage authority (primarily set out in Minnesota State 103E) operates in theory and in fact through legal analysis and case studies
2. to bench mark Minnesota's drainage laws with those of other states
3. to examine how key provisions of the Minnesota's drainage law are actually implemented
4. to develop key observations and identify key leverage points with the potential of improving Minnesota's drainage law

II. DESCRIPTION OF PROJECT RESULTS

Result 1: *Scoping of Issues* ***Budget: $33,417***

The past decade has evidenced an increased interest in the intersection between Minnesota's drainage systems and the quality of Minnesota's lakes, streams and wetlands. Most recently the Minnesota Drainage work group has attempted to address some of the more technical issues affecting the technical operation of drainage systems. Phase I of this project involves identifying key legal issues and leverage points to be highlighted in the legal analysis, case studies and benchmarking. This process will involve soliciting information from key constituencies through both interviews and informal meetings. These data will be used to focus the legal analysis.

Deliverables	**Completion Date**
1. Scoping Report	**9/15/09**

Result 2: *Analysis of Minnesota's current drainage law authority* ***Budget: $98,204***

Phase 2 of the drainage project is a formal legal analysis of Minnesota's drainage laws. We will analyze the statutory drainage procedures and case law. This legal analysis will culminate in three deliverables: (1) a systems diagram outlining the operation of the policy and legal framework in which drainage systems operate, (2) an analysis of the system used to allocate cost and benefits by viewers, an analysis of how drainage decisions are made, how abandonment procedures operate, and what the impact of landscape changes is on drainage systems, and (3) a written legal analysis. The legal analysis will identify and scope the legally designated roles and responsibilities of drainage entities, the allocation of costs and benefits for improvements to the drainage system, the incorporation of environmental benefits, the transfer of systems from rural to urban authorities and the implications, and abandonment procedures.

Deliverables	**Completion Date**
1. System Diagram	**6/30/10**
2. Legal analysis of statute and case law	**6/30/10**
3. Analysis of Cost/Benefit procedures	**6/30/10**

Result 3: *Analysis of Intersection of Minnesota's Drainage Laws with other federal and state water laws* ***Budget: $75,035***

There is an increased recognition, highlighted in the Statewide Conservation and Preservation Plan, that land use impacts water quality in Minnesota. Understanding this relationship not only requires an understanding of the physical infrastructure on the land but an understanding of the connection between the state drainage authority, the requirements of the Clean Water Act including total maximum daily loads (TMDLs), storm water requirements and other permitting and local land use and water plans. While there have been a handful of law review articles exploring the relationship between Minnesota's drainage authority, wetlands preservation and dredge and fill requirements there has been no comprehensive evaluation of the more complex intersect of these multiple laws. Phase 3 involves a detailed analysis of the relationship between various legal requirements, the implications on programs designed to address water quality, and an exploration of how these legal requirements might work together most effectively.

Deliverables	**Completion Date**
1. Interim Report Phases 1-3	**6/30/10**

Result 4: *Bench marking* ***Budget: $81,464***

Understanding how other states and, in some instances, how other countries have designed their drainage laws and the intersection between their drainage laws and other water quality and quantity legal requirements.

Deliverables	**Completion Date**
1. Benchmarking Report	**12/01/10**

Result 5: *Case Studies* ***Budget: $114,781***

A number of issues have been raised about how the drainage laws operate in fact. There is a fair degree of speculation about how aspects of the program operate on the ground and consistency of implementation from county to county. In this phase of the research we will undertake a series of case studies designed to test the law against actual practice. We will conduct between 10 and 15 case studies across in 10 to 15 drainage systems ranging from rural to urban.

Deliverables	**Completion Date**
1. Case Study Report	**5/30/11**

Result 6: *Final Report and analysis* ***Budget: $20,153***

In this final phase we will analyze the data compiled and prepare a final report outlining observations and conclusions about the operation of the state's drainage laws and their impacts on other local, state or federal authority governing state waters and recommending strategies to leverage change in the system.

Deliverables	**Completion Date**
1. Final Report	**7/30/11**

III. PROJECT STRATEGY AND TIMELINE

A. Project Partners

This project will use an interdisciplinary team from across the University and will contract with Jean Coleman, CR Planning.

B. Project Impact

The outcome of this research will be a detailed understanding of the operation of the state's drainage authority across diverse landscapes and an understanding of how the state authority intersects with other applicable local, state and federal water law. Additionally this research will bench mark Minnesota's practices with those of other key states and will develop potential strategies to leverage change in the system for the benefit of the state's water quality.

C. Project Time Line

The project will be completed in a two year time frame.

D. Long Term Strategy (if applicable)

This proposal supports the implementation of the Statewide Conservation and Preservation Plan.

Project Budget

IV. TOTAL PROJECT REQUEST BUDGET

BUDGET ITEM	AMOUNT	% FTE
Personnel:	$ -	%
Dr. Swackhamer	$ 24,675	5%
Sherry A. Enzler JD	$ 149,779	75%
Faye Sleeper	$ 26,744	10%
Dr. K. William Easter	$ 13,916	8%
Dr. Gary Sands	$ 12,204	5%
Prof. Bradley Karkkainen	$ 43,679	9%
Grad. Students 1.5	$ 103,930	150%
Chris Hanson	$ 7,627	8%

Contracts: Jean Coleman, CR Planning	$ 34,200	
Equipment/Tools:	$ -	
Acquisition (Including Easements):	$ -	
Restoration:	$ -	
Other:	$ -	
Travel ($500 metro, outstate 10 trips/2 people/$500/trip)	$ 5,500	
Printing reports	$ 500	
Materials and supplies (postage, copying, etc.)	$ 300	
	$ -	
TOTAL PROJECT BUDGET REQUEST TO LCCMR	$ 423,054	

V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
Remaining $ From Previous Trust Fund Appropriation (if applicable):	$ -	
Other Non-State $ Being Leveraged During Project Period:	$ -	
Other State $ Being Spent During Project Period:	$ -	
In-kind Services During Project Period:	$ -	
Past Spending:	$ -	

Project Manager Qualifications and Organization Description

Sherry A. Enzler, Research Fellow, University of Minnesota and Adjunct Professor, Natural Resource Law, William Mitchell College of Law.

B.A., Political Science, University of Minnesota (1976)
M.P.A. Public Administration/Public Policy University of Southern California (1978)
J.D. William Mitchell College of Law (1985)
PhD Candidate, Natural Resource Science and Management, University of Minnesota.

Ms. Enzler will be responsible for overall project coordination. Most recently she has been studying means of using political and legal systems to protect water based ecosystems. Ms. Enzler has extensive experience in environmental law and policy. Ms. Enzler's practice included both water quality and land use and her clients included both private and public entities. She has represented a number of agricultural clients in drainage matters. Prior to entering private practice Ms. Enzler spent over a decade at the Minnesota Attorney General's office where she was the lead environmental defense attorney for the state of Minnesota (1985-1998). One of her primary responsibilities was to provide legal advice and represent state agencies in water permitting matters, wetland restoration and drainage matters. Ms. Enzler also served as the Executive Director of the Office of Environmental Assistance (1999-2003) and served on the Executive Committee of the Minnesota Pollution Control Agency during the formative years of the state's impaired waters program. Ms. Enzler was also a member of the Minnesota Environmental Quality Board, is a graduate of the Yale Corporate Environmental Leadership Program, and in 2004 was recognized as a Super Lawyer in the Environmental field by Minnesota Law and Politics. Prior to commencing her legal career she spent time at the U.S. Department of Interior, the California Department of Water Resources and the Minnesota Legislative Auditor's Office where she evaluated program performance of state environmental and natural resource programs.

Dr. Deborah Swackhamer (University of Minnesota), the Co-director of the Water Resources Center and former Interim Director of the newly-formed Institute on the Environment, has been studying the processes affecting the behavior and fate of persistent organic compounds including PCBs, dioxins, pesticides and sediment accumulation in aquatic systems for 20 years. Currently, her research has expanded to include exposures and impacts of endocrine disruptors in aquatic systems. Dr. Swackhamer also served as the primary project investigator for the Statewide Conservation and Preservation Plan prepared by the University for the LCCMR. She sits on the Governor's Clean Water Council, and she was recently appointed Chair of the US Environmental Protection Agency's Science Advisory Board by Administrator Johnson. Ms. Faye Sleeper (University of Minnesota) Ms. Sleeper is Co-director of the Water Resource Center. Prior to coming to the University Ms. Sleeper spent 17 years at the MPCA where she led the development of the state's impaired waters policy and the implementation of that policy across watersheds. She has extensive experience working with communities on both point source and non-point source water impacts including drainage in both urban and rural settings. Professor Bradley C. Karkkainen (University of Minnesota) is a nationally recognized expert in environmental and natural resource law and holds the Henry J. Fletcher Chair at the Mondale School of Law. He is one of the founding fellows of the Institute on the Environment. Prof. Karkkainen researches innovative strategies for environmental regulation and natural resource management with a focus on mechanisms that promote adaptive learning, flexibility, transparency and policy integration. Prof. Karkkainen is a principle investigator in the Project on Public Problem-Solving an interdisciplinary collaborative research effort at Columbia, Harvard, the University of California-Berkeley, and the University of Minnesota. Dr. Gary Sand (University of Minnesota) Dr. Sand's research interests include the environmental impacts and sustainability of agricultural systems including drainage system, water quality and water resource uses. Dr. K. William Easter (University of Minnesota) is a faculty member in the Department of Applied Economics. His research interests focus on the economics of farmland drainage and irrigation, water pollution in agricultural communities, transaction costs of water delivery and the secondary impact of inter basin water transfers. Ms. Jean Coleman, CR Planning, is a land use planner and attorney specializing in assisting communities to better connect natural resource information to land use decisions. Ms. Coleman will use her land use and law expertise to evaluate the intersection of Minnesota's drainage law and the urbanizing landscape. Having worked with a spectrum of Minnesota counties and cities over 20 years, Ms. Coleman brings an applied understanding of state and federal water law. She is currently developing a strategic plan for the MPCA Stormwater Steering Committee and recently served as project coordinator for the Statewide Conservation and Preservation Plan.

Organization Description

The University of Minnesota is one of the largest, most comprehensive, and most prestigious public universities in the United States (http://www1.umn.edu/twincities/01_about.php). The facilities at the University contain all the facilities needed for the proposed research.