

**Environment and Natural Resources Trust Fund
2010 Request for Proposals (RFP)**

LCCMR ID: 194-F

Project Title:

Minnesota River Experts: An educational field trip online

LCCMR 2010 Funding Priority:

F. Environmental Education

Total Project Budget: \$ \$124,721

Proposed Project Time Period for the Funding Requested: 2 years, 2010 - 2012

Other Non-State Funds: \$ \$0

Summary:

Take a virtual field trip with 20 experts who answer questions about the Minnesota River. Tours and materials available online and at 6 kiosks in schools and outreach centers.

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Sponsoring Organization: MN State University - Mankato

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Location:

Region: Central, Metro, SW, SE

County Name: y, Stearns, Steele, Stevens, Swift, Traverse, Waseca, Watonwan, Yellow Medicine

City / Township:

_____ Knowledge Base	_____ Broad App.	_____ Innovation
_____ Leverage	_____ Outcomes	
_____ Partnerships	_____ Urgency	_____ TOTAL

PROJECT TITLE: Minnesota River Experts: An Educational Field Trip Online

I. PROJECT STATEMENT

The Minnesota River has been cited as one of the most polluted rivers in the state and nation. In 2008, it was listed as one of the most endangered rivers in the United States by American Rivers: (www.americanrivers.org). Considerable public funding and effort has gone into better understanding and restoring the Minnesota River. Much of this information is housed in a diverse array of scientific publications. Numerous basin-wide stakeholder meetings have come to the same conclusion: there is a need to bridge the information gap between researchers and the public and generally improve environmental education about the river. The goal of this project is to increase public awareness about the river's health by using new media techniques to engage students and the public.

Studies indicate that high school students and the public increasingly rely on the internet for information. The Water Resources Center (WRC) will provide current scientific information about the Minnesota River using a virtual web-based field trip. Using concise video clips, key questions about the river's health will be answered by scientific experts working in the field. Other interactive features and new media techniques will be woven into the web site to create a virtual experience for the web site user. This concept arose from a web site developed by the WRC that captured interviews with long-time basin residents (see <http://mrbdc.mnsu.edu/mnbasin/interviews/interviews.html>).

Overall GOALS:

- Educate the public about the water quality of the Minnesota River through video interviews of natural resource scientists and citizens.
- Provide an innovative educational tool: an online, multi-media web site that will enrich and update the Minnesota River Basin Data Center web site (<http://mrbdc.mnsu.edu>).
- Inspire students and the public to explore the dynamic river environment and get interested in science by establishing six public learning sites.
- Share data with the public, students and teachers by both traditional and nontraditional outreach.
- Increase public awareness of environmental issues and promote environmental stewardship.

Direct Impacts

- High School students at three schools in the Minnesota River Basin.
- The public visiting three educational centers in the Minnesota River Basin.
- Improve stewardship across the basin including water quality and natural resources.

This project will develop an innovative multi-media virtual field trip and educational materials available online to teach the public about the Minnesota River. This interactive web site will enable people to choose from a map or list of key questions about the Minnesota River. Short video clips scientists working in the field at different locations across the basin will answer key questions about the river's health. This web site will teach the public about scientific inquiry, ecological knowledge, problem solving, planning/decision making and stewardship.

II. DESCRIPTION OF PROJECT RESULTS

Result 1: Develop real world, hands-on learning Field Trips - Budget: \$19,480.51

Conduct 20 interviews with natural resource scientists and citizens about environmental issues affecting the Minnesota River.

Result 2: Develop web graphics and web site - Budget: \$41,604.94

Create a web site that will include expert interviews, maps, graphics and current data.

Result 3: Establish learning stations - Budget: \$24,052.16

Set up 6 learning stations (computer kiosks): 3 at schools and 3 at educational centers.

Result 4: Develop Minnesota River based educational materials - Budget: \$ 21,883.67

Work with the advisory team to develop educational materials related to interview topics.

PROJECT TITLE: Minnesota River Experts: An Educational Field Trip Online

Result 5: Outreach to promote the web site, Minnesota River issues, and environmental stewardship - Budget: \$ 17,700.47 Reach 150 high school students at 3 schools through classroom presentations, 200 citizens by public presentations, potentially thousands through web site visits and hundreds with Earth Day stewardship programs.

III. PROJECT STRATEGY

The project team includes Water Resources Center staff: Kimberly Musser, Assistant Director – project manager, conduct interviews, develop graphics, web site, and education materials, promotion. Scott Kudelka, Communications Coordinator – conduct interviews, develop education materials, promotion. Rick Moore, GIS Specialist – conduct interviews, create maps and graphics such as GoogleEarth flythroughs. Citizen and natural resource scientists that will be interviewed, help to develop education materials, and will serve as an advisory team include: Bernard Sietman and Mike Davis (mussels), Chris Domier (fisheries) and Bob Beck (state park naturalist) – DNR; Pat Baskfield, Hydrologist – MPCA; Carrie Jennings, Senior Scientist - MN Geology Survey; Joel Wurscher, Project Coordinator - High Island Creek Project; Brooke Patterson, Project Coordinator - Rush River Project; Tom Kalahar, District Technician - Renville SWCD; Lauren Klement, Le Sueur County Water Planner; Paul Wymar, Watershed Scientist - Chippewa River Watershed Project. Teachers include: Greg Wyum, Science Teacher - Dawson-Boyd Public School; Greg Elseth, Science Teacher - Sibley East Public School; Anthony Sonnek and Nicole Kotasek, Science Teachers - MN New Country School; Becky Pollack, Executive Director - Ney Nature Center; Ron Bolduan, Curator - Regional River History Center; Ben Leonard, Executive Director - Minnesota River Treaty Center

Project Timeline

July, 2010 – June, 2011

- Assemble the advisory group of scientists to identify key Minnesota River water quality questions and conduct interviews. Compile material for web site development.
- Construct the web pages, perform research, develop maps, photos, graphics and aerial imagery.

July – August, 2011

- Establish learning stations at the three schools and three educational centers.

July, 2011 – June, 2012

- Complete project and test final product with advisory and citizen groups.
- Promote the web site and learning stations with classroom visits, public presentations, through the use of YouTube, Facebook, Twitter, texting, news releases, etc.
- Develop educational materials for schools and public.
- Put on Earth Day events for all six learning stations to promote better understanding and stewardship.

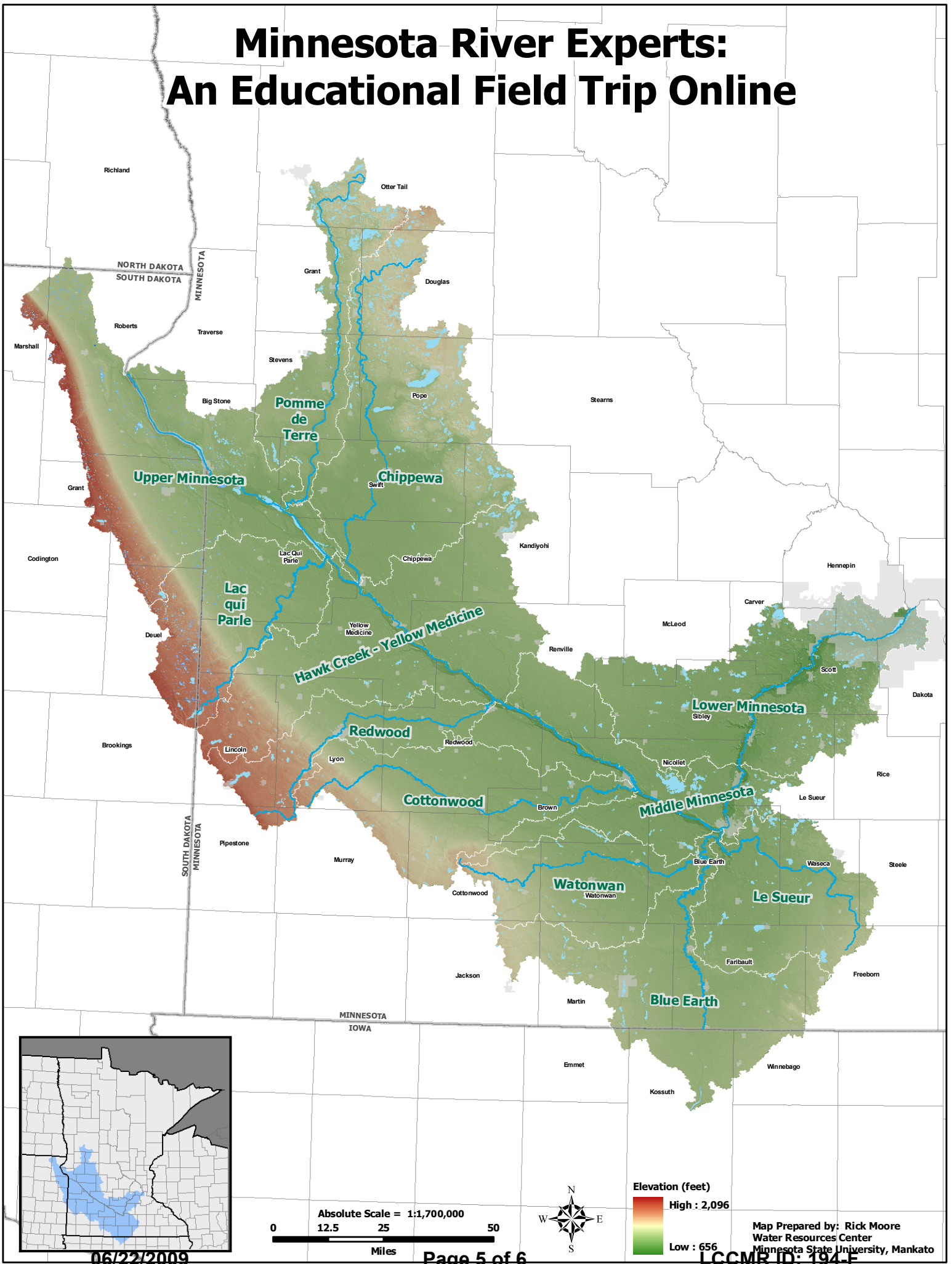
IV. LONG TERM STRATEGY

This project is part of a larger strategy to increase public awareness about the health of the Minnesota River. The online interviews would offer an innovative way to educate citizens about what scientists are learning about rivers and lakes in the basin. The proposed project would improve information flow, help bridge the information gap, and enrich and update the Minnesota River Basin Data Center web site (<http://mrbdc.mnsu.edu>) which was originally funded by LCMR (LCCMR). This project would also serve as a tool for future efforts to integrate Minnesota River topics into the high school science curriculum across the Minnesota River Basin.

PROJECT PROPOSAL:
Minnesota River Experts: An Educational Field Trip Online
Submitted on behalf of Water Resources Center
Kimberly Musser, Project Manager

		Field Trips	Web Developmt		Stations		Ed Materials		Outreach			
WRC Personnel	daily rate	# days	Task #1	# days	Task #2	# days	Task #3	# days	Task #4	# days	Task #5	COMMENTS
Administration			\$ -		\$ -		\$ -		\$ -		\$ -	
Kimberly Musser	\$ 258.99	20	\$ 5,179.88	37	\$ 9,582.78	6	\$ 1,553.96	12	\$ 3,107.93	10	\$ 2,589.94	
Scott Kudelka	\$ 165.38	21	\$ 3,472.98	29	\$ 4,796.02	21	\$ 3,472.98	45	\$ 7,442.10	41	\$ 6,780.58	
Richard Moore	\$ 183.00	15	\$ 2,745.00	30	\$ 5,490.00	12	\$ 2,196.00	5	\$ 915.00	8	\$ 1,464.00	
Student	\$ 96.00	0	\$ -	80	\$ 7,680.00		\$ -	40	\$ 3,840.00		\$ -	
Student	\$ 96.00	0	\$ -	40	\$ 3,840.00		\$ -		\$ -		\$ -	
Total Salary			\$ 11,397.86		\$ 31,388.80		\$ 7,222.94		\$ 15,305.03		\$ 10,834.52	Salary subject to step-increases
Fringe Benefits												
Kimberly Musser	35%	20	\$ 1,812.96	37	\$ 3,353.97	6	\$ 543.89	12	\$ 1,087.77	10	\$ 906.48	
Scott Kudelka	65%	20	\$ 2,257.44	29	\$ 3,117.41	21	\$ 2,257.44	45	\$ 4,837.37	41	\$ 4,407.38	
Richard Moore	65%	15	\$ 1,784.25	30	\$ 3,568.50	12	\$ 1,427.40	5	\$ 594.75	8	\$ 951.60	
Student	8%	0	\$ -	80	\$ 117.50		\$ -	40	\$ 58.75		\$ -	
Student	8%	0	\$ -	40	\$ 58.75		\$ -		\$ -		\$ -	
Total Benefits			\$ 5,854.65		\$ 10,216.14		\$ 4,228.72		\$ 6,578.64		\$ 6,265.46	Benefits subject to increase this year.
MSU Indirect	0%		\$ -		\$ -		\$ -		\$ -		\$ -	
Travel/ Mileage	\$ 0.52	2000	\$ 1,030.00			1166	\$ 600.49			1166	\$ 600.49	
Sub Total			\$ 1,030.00		\$ -		\$ 600.49		\$ -		\$ 600.49	
Supplies												
Computers	\$ 1,000.00					6	\$ 6,000.00					
Kiosks	\$ 1,000.00					6	\$ 6,000.00					
Camcorder with hard disk	\$ 899.00	1	\$ 899.00									
Wireless Microphone	\$ 199.00	1	\$ 199.00									
External Hard drive	\$ 100.00	1	\$ 100.00									
Sub Total			\$ 1,198.00		\$ -		\$ 12,000.00		\$ -		\$ -	
TOTAL			\$ 19,480.51		\$ 41,604.94		\$ 24,052.16		\$ 21,883.67		\$ 17,700.47	
In-kind												
WRC Staff Time	\$ 165.38	100	\$ 16,538.00									
Expert/ Agency Staff Time*	\$ -	30	\$ -									
Computers & Printing		1	\$ 1,500.00									
Travel (use of WRC/MRB van)	\$ 60.00	15	\$ 900.00									
Total In-kind			\$ 18,938.00		\$ -		\$ -		\$ -		\$ -	
SUB GRAND TOTAL			\$ 19,480.51		\$ 41,604.94		\$ 24,052.16		\$ 21,883.67		\$ 17,700.47	
GRAND TOTAL			\$ 124,721.74									

Minnesota River Experts: An Educational Field Trip Online



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Project Manager Qualifications and Organization Description

Kimberly Musser, Project Manager

As Assistant Director of the Water Resources Center, Kimberly Musser has coordinated a wide variety of projects including other online educational projects. She has served as project manager for the State of the Minnesota River Reports, Minnesota River Trends Report, developing interactive features for the Minnesota River Basin Data Center web site (<http://mrbdc.mnsu.edu>), and a diverse array of publications and web sites that provide information about the Minnesota River and its tributaries. She brings over a decade of project management experience to the project.

While interning at the National Geographic Society, Kimberly assisted with *The Jason Project* (<http://www.jason.org>) a multi-media, online educational science program that reaches over a million students a year. Its effective online field trip format was part of the inspiration for this project. Kimberly has developed and taught over a dozen courses Minnesota State University in the Geography and Urban and Regional Planning departments. She holds a Masters degree in Environmental Planning from University of Oregon and an undergraduate Geography degree from the University of California at Berkeley.

Water Resources Center, Minnesota State University, Mankato (WRC)

The WRC is uniquely situated to disseminate the latest information about the Minnesota River due to its involvement with data collection and distribution, policy development, and communication throughout the Minnesota River Basin. Three major Minnesota River projects are housed at the WRC. The Minnesota River Basin Data Center (<http://mrbdc.mnsu.edu>) is a data clearinghouse, originally funded by LCMR (LCCMR) in 1997, with a mission to develop, interpret, and disseminate data that impact the environment, economy and communities within the Minnesota River Basin. The Minnesota River Board (<http://www.minnesotariver.org>) director and staff are also based out of the WRC and work closely with the joint powers board to build partnerships and support efforts to improve and protect water quality in the Minnesota River Basin. The communication coordinator of the Minnesota River Watershed Alliance (<http://watershedalliance.blogspot.com/>), also based at the WRC, networks with and connects a diverse selection of citizens, nonprofit organizations and government agencies and provides information about water quality related issues and efforts advanced by this coalition. In addition, we have GIS staff with the capacity to create sophisticated GIS analysis and maps and 3-dimensional landscape visualization.

The Water Resources Center (WRC) of Minnesota State University, Mankato was created in 1987 to serve as a regional center for environmental research and information exchange. The mission of the WRC is to gather, interpret, and distribute data of environmental significance to help citizens enhance the quality of regional lakes, rivers, wetlands, and groundwater. This is accomplished through faculty and student applied research, educational programming, technical assistance, and water resource planning.

Since its beginning, the WRC has participated in over 100 research, educational, and planning projects involving partnerships with dozens of public and private organizations. These projects range from groundwater, lake assessment, and TMDL studies to water quality workshops to development of watershed-based plans for surface water quality protection. Our stability since 1987 stands as a testament to the objective and quality products we produce. Long-term partnerships with counties, nonprofit organizations, and state agencies have resulted in many important and far-reaching land and water resource initiatives. We have a dedicated staff and look forward to enhancing the public's connection with the Minnesota River.