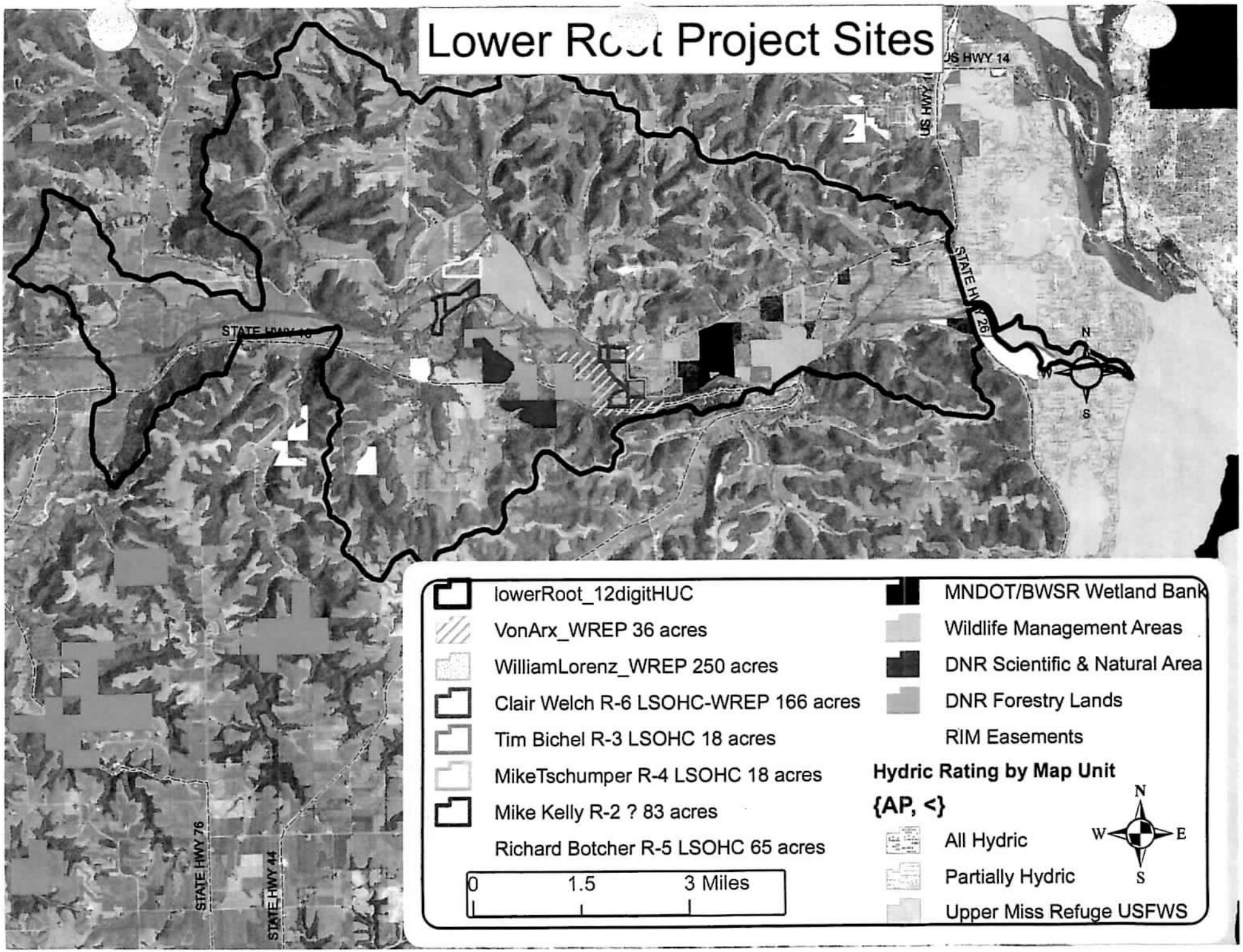

Lower Root Project Sites
US HWY 14
STATE HWY 26
STATE HWY 16
STATE HWY 76
STATE HWY 44
N
W
E
S
lowerRoot_12digitHUC
VonArx_WREP 36 acres
WilliamLorenz_WREP 250 acres
Clair Welch R-6 LSOHC-WREP 166 acres
Tim Bichel R-3 LSOHC 18 acres
MikeTschumper R-4 LSOHC 18 acres
Mike Kelly R-2 ? 83 acres
Richard Botcher R-5 LSOHC 65 acres
0
1.5
3 Miles
MNDOT/BWSR Wetland Bank
Wildlife Management Areas
DNR Scientific & Natural Area
DNR Forestry Lands
RIM Easements
Hydric Rating by Map Unit
{AP, <}
All Hydric
Partially Hydric
Upper Miss Refuge USFWS

(a) **Lower Root River Floodplain Wetland Restoration**

Root River Healthy Watershed Initiative

(Mississippi River Basin Initiative MRBI)

(b) **From:** The Nature Conservancy in Minnesota
Request: $8,738,516 over 4 years (FY 2010, FY 2011, FY 2012, FY 2013)
Date: April 30, 2009

(c) **Lead Contact:**
Richard Biske, Southeast Minnesota Conservation Coordinator
Southeast Minnesota Office
The Nature Conservancy in Minnesota
(d) PO Box 405, 136 St. Anthony St.
Preston, Minnesota 55965
(507) 765-2450
rbiske@tnc.org

Collaborating Partners:
Root River Soil and Water Conservation District (SWCD)
US Fish and Wildlife Service (USFWS)
Minnesota Dept. of Natural Resources (MNDNR)
Basin Alliance for the Lower Mississippi in Minnesota (BALMM)
MN Board of Water and Soil Resources (BWSR)
Minnesota Forest Resources Council (MFRC)
Minnesota Land Trust (MLT)
Minnesota Pollution Control Agency (MPCA)
US Geological Survey (USGS)

(e) **8 Digit HUC: Root River Watershed 07040008**
12 Digit HUC: 070400080904
State: Minnesota
County: Houston
Congressional District: 1 (Represented by Congressman Tim Walz)

Figure 1. Location of Root River and Lower Root Watersheds

(f) Description/summary of project and resource issues:

The Mississippi River is one of our nation's greatest treasures. Originating in Minnesota, we bear a responsibility as citizens of this state to protect and keep this mighty river flowing clean and with an abundance of fish and wildlife. This partnership, with funding from NRCS MRBI, will restore habitat connectivity and improve water quality in a critical area along the Lower Root corridor from the City of Houston to its confluence with the Mississippi River near Hokah, MN. The project will reconnect the Root River to its floodplain, revitalize backwaters and channels, and protect and enhance floodplain wetlands, forests, and prairies that are essential to sustaining the incredible diversity of plants, animals, and human uses that are provided by these great rivers.

This project is part of a broad partnership effort to create a contiguous habitat corridor in the Lower Root River area by connecting existing private, state, federal, and non-government lands with a focus on private lands assistance, water quality, fish and wildlife habitat, biodiversity protection, flood mitigation, and recreation. This project will reduce flooding in Hokah by storing water and sediment in the Root River floodplain, and reduce sediment and nutrient loads to the Mississippi River downstream.

(g) Potential Acres to be enrolled: 3,686

Four landowners have already come forward with interest in enrolling in a conservation easement program. The current interest totals 786 acres and history of easement signups

and land acquisition within the project area indicates an enrollment of 3,686 acres over the project period. The State of Minnesota and project partners are increasing outreach and land protection efforts within the project area that is anticipated to increase interest and enrollment as the project progresses.

(h) Because landowners have already expressed interest and are familiar with conservation easements, signups will begin as soon as a WREP award is made. It is anticipated initial easements will close in 2011 and restoration will be complete in the spring of 2012. Other signups will continue during this period and restoration/enhancement work will be completed by 2015.

(i) Total budget for the project:

Year	WREP Requested Funds	Cash Match	Matching Source	In-Kind Technical Assistance*
Year 1	$1,559,235	$100,000	The Nature Conservancy	10,000
Year 2	$2,447,185	$805,315	BWSR RIM	10,000
Year 3	$2,366,048	$735,077	BWSR RIM	10,000
Year 4	$2,366,048	$735,077	BWSR RIM	10,000
4 yr total	$8,738,516	$2,375,469		40,000

*Technical assistance to complete easements will be paid for by BWSR on a per easement basis of $2,000.

2 – Project Natural Resource Objectives and Actions:

(a) **Natural Resource Concerns:**

100 years ago and for millennia before then, the Root River would have slowly descended the Rochester Plateau into the Blufflands on its way to the Mississippi River. For the last 20 miles this river would have lost velocity and meandered about a floodplain 1 to 3 miles wide, dropping sediment and nutrients as it faded into smaller ribbons of distributary channels. The large floodplain wetlands and the associated Mississippi floodplain would have comprised the vast majority of wetland habitat in the wetland poor Karst geology of Southeast Minnesota. Habitats included forests for neotropical songbirds, open water wetlands and oxbows for wood ducks and teal, wet tallgrass prairies for bobolinks and shallow sand bars for the now rare wood turtle.

These once grand corridors of biodiversity and river processes now have significant proportions of cropland, at times to the point the fields fall into the river. The final 4 miles of the river has been channelized and levied jettisoning sediment and nutrients directly to the Mississippi River. In spite of all the efforts to control the river, it continues to overtop its raised banks and damage crop fields that were once wetlands. The Root River drains over 1 million acres and is estimated to contribute nearly 200,000 tons of bed load sediment to the Mississippi River each year, one of the largest

loads in the Upper Mississippi River System (Hendrickson, Bed Material Budget for the St. Paul District ACoE 2003). Restoring just a portion of the lower floodplain by removal of agricultural levees and reconnecting floodplain wetlands to the river could reduce sediment delivery to Mississippi River by 25-55%.

With high sediment and nutrient loads, there is great need for ongoing conservation efforts on the upland portions of the watershed to limit runoff. A complementary MRBI CCPI proposal for the nearby Rush/Pine Creek Sub-watershed addresses this upland component. The current state of the river's floodplain is a significant contributing factor regarding sediment and nutrient loading of the Mississippi River. Long Term Resource Monitoring for Pool 8 of the Mississippi River shows concentrations of nitrate-nitrite about 1-2 mg/L higher from the Root River than from the Mississippi River upstream, indicating enrichment largely from the Root River. Turbidity and suspended solids also increased substantially from upstream to downstream suggesting the Root River is a significant source of sediment. The Root River's mean concentration of suspended solids is 3 to 4 times higher than the main channel.

This portion of the Root River is listed by the MN Pollution Control Agency as impaired for turbidity. The mean concentration of total suspended solids at the mouth of the river was 99 milligrams per liter (mg/L) during the 1990s, more than twice as high as any other monitored major tributary in the Lower Mississippi River Basin of Minnesota. An examination of Long Term Resource Monitoring Program (LTRMP) data from the mouth of the Root River from 1993 - 2002 shows turbidity to be twice the state standard. Following storm events a pronounced sediment plume is evident on the Mississippi River up to 14 miles downstream from the mouth of the Root River to Lock and Dam #8 at Genoa, Wisconsin. This reach of Mississippi River is also listed as impaired for turbidity, a direct result of inputs from the Root River.

Phosphorus often is the limiting growth factor that contributes to the production of excessive algae in surface water in southern Minnesota. Inputs from the Root River contribute to this condition in Pool 8 of the Mississippi River. Major sources of phosphorus to surface water are from nonpoint sources. Nonpoint sources include surface runoff from agricultural and urban land. Phosphorus is often attached to sediment and is transported to surface water as overland flow.

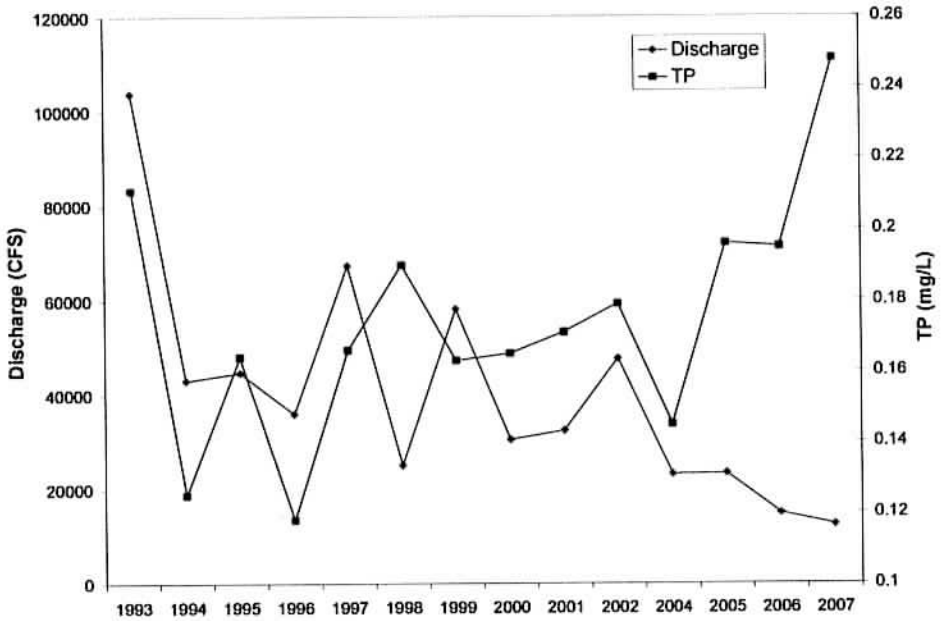


Figure 2. Pool 8 summer discharge and contiguous backwater total phosphorus 1993-2007.

Evaluation of Factors Influencing Metaphyton Abundance and Distribution on Navigation Pools 4, 8, and 13 of Upper Mississippi River *Shawn Giblin, Heidi Langrehr, John Sullivan and Kraig HoffWisconsin Department of Natural Resources Mississippi River Monitoring Field Station*

The Root River is also impaired by **fecal coliform bacteria** within this project area including several tributaries. The summer mean concentration on the lower reach of the main channel within this project area is four times the state water quality standard, and almost twice as high as the basin wide median value.

Nitrate-nitrogen contamination of groundwater, especially shallow private wells and trout streams, has long been a local concern within the Root River watershed. In surface water, this is the only nutrient that has shown a steadily rising concentration. The unique karst geology allows rapid intercommunication of surface and ground water. Nitrogen concentrations in Lower Mississippi River Basin tributaries have been increasing for several decades. Since the 1970's MPCA Milestone monitoring program's trend analysis shows that nitrate concentrations are increasing in Root River. Detections of high concentrations (>10 ppm) in private wells are common, results for 2008 and 2009 show the percentage of samples analyzed with nitrate levels over the drinking water standard of 10 ppm to be 19% in the project area county.

(b) Natural Resource Objectives and Actions:

1. **Water Quality**

Goal: Reduce turbidity and total phosphorous at the mouth of the Root River by 15% by 2015 to align with the 2003 Clean Water Initiative goal of a 20% reduction in turbidity in 10 years.

Goal: Reduce nitrate-nitrite concentrations at the mouth by 10% by 2015.
Measure: This will be documented using the Long Term Resource Monitoring Program for Pool 8 and Root River sampling locations.

According to background information in the Root River Turbidity TMDL Work Plan, high concentrations of suspended sediment (turbidity) impair the Root River at the mouth and in several tributaries.

Objective 1: Restore 2,000 acres of floodplain wetland and 2,500 acres of alluvial habitat within the Lower Root Watershed.

Action 1: Secure easements with existing willing landowners
Accomplished: Sept. 30, 2011
Action 2: Restore wetlands and associated alluvial habitats with existing willing landowners
Accomplished: Sept. 30, 2012
Action 3: Continue outreach efforts to project area eligible landowners and the larger community
Accomplished: 20 Landowners per year
Action 4: Increase storage capacity of lower Root River by 25%
Accomplished: July 1, 2015

2. **Ecosystem Function**

Goal: Restore and maintain an interconnected floodplain habitat network from Houston, MN to the Mississippi River, securing over 10,000 contiguous acres.
Measure: Aerial extent inventory of conservation lands and restorations using ArcGIS.
Objective 1: Increase aerial extent of natural floodplain wetlands and associated alluvial habitats by 150%.

Action 1: Complete Hydro Geomorphic Model
Accomplished: July 31, 2010
Action 2: Focus WREP easements based on Hydro Geomorphic Model and adjacent to existing and proposed public conservation lands
Accomplished: September 30, 2013
Action 3: Conduct restoration based on hydrologic connectivity and native habitat types
Accomplished: September 30, 2015

3. **Public Understanding and Interest**

-This will be carried out by partners using in-kind contributions to the overall project.
Goal: Increase public understanding and support for wetland and floodplain function and benefits.
Measure: Increase in the number of willing landowners and acts of support from community.
Objective: Contact all landowners within 100 year floodplain.

Action 1: TNC will develop landowner handout and print material for distribution.
Accomplished: December 31, 2010

Action 2: Deliver material to each floodplain landowner.
Accomplished: March 1, 2011
Action 3: Meet one on one with each floodplain landowner
Accomplished: September 30, 2013
Action 4: Host public forums for residents and community leaders.
Accomplished: July 1, 2011

Objective: Coordinate with interest groups.

Action 1: Integrate restoration plan with trail corridor expansion.
Action 2: Integrate restoration work into local natural resources plans with cities of Hokah and Houston

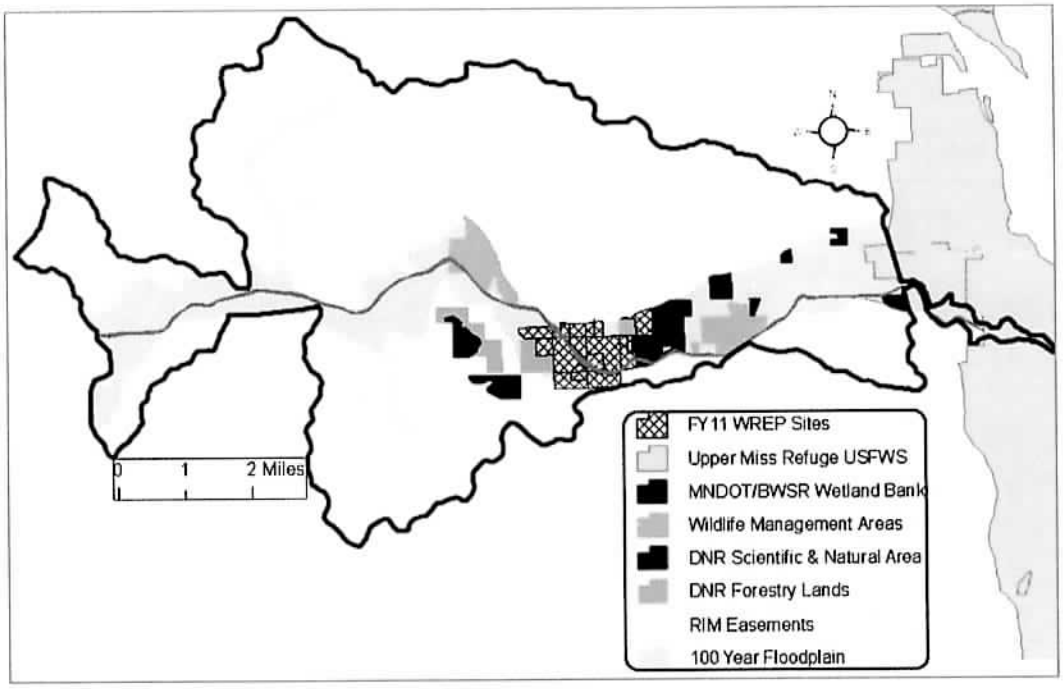
The Minnesota Department of Natural Resources has been recommended to receive $1,000,000 for the acquisition and restoration of floodplain wetlands within the project area during Federal FY2011. These properties will be added to the existing Wildlife Management Area within the Lower Root Watershed. The USFWS recently acquired a 647 acre parcel within the project area that will be the subject of hydrologic modeling to determine wetland and floodplain restoration scenarios. This modeling effort and the subsequent restoration will inform the restoration methodology employed for the WREP projects proposed. All of this work is part of a broad partnership effort.

Combined, these actions will help meet the life history needs of important bird and other fish and wildlife species that depend on large tracts of intact and healthy forests, wetlands, rivers, and prairies. Rare species will especially benefit from increased habitat and greater connectivity. Protection will also prevent the habitat degradation and soil erosion that would result from urban developments in this fragile region.

(c) Total Wetland Protection, Restoration and Enhancement

	Wetland Protection	**Wetland Restoration**	**Wetland Enhancement**
Acres	3000	1000	1636

Figure 3. Current willing landowners and conservation lands



3- Detailed Proposal Criteria:

(a) Description of partners history of working with ag producers:

The Nature Conservancy has been protecting and restoring wetlands in Minnesota for some 50 years (since 1958). For more than 25 years, The Nature Conservancy (TNC) has been working in agricultural landscapes. This long history has allowed the Conservancy the opportunity to create partnerships with local producers, BWSR, SWCDs, NRCS, MN DNR, USFWS, MDA, conservation organizations (like Ducks Unlimited and Pheasants Forever), agribusiness (e.g., Cargill, Monsanto and General Mills) and academic institutions in several locations. These voluntary efforts have succeeded in encouraging the application of agricultural practices that enhances farm income and demonstrate conservation benefits of wetland protection and restoration. TNC has focused on implementing sound, science-based, conservation strategies that are aimed at abating the most pressing threats to biodiversity in each project area, and has been an innovator in developing and implementing new technologies to protect water quality and riverine habitats. The effort described in this proposal and the associated Rush/Pine Creek CCPI MRBI are both components to TNC's Upper Mississippi River Program, a partnership between TNC and entities working throughout the 5 state Upper Mississippi River Basin.

Root River (Houston County) Soil and Water Conservation District has been the trusted source for conservation assistance to local farmers for 70 years. SWCD staff

assist landowners with all types of on farm conservation practices, providing technical assistance for NRCS programs and administering several state conservation programs and funding sources. Root River SWCD has focused on repairs following the devastating 2007 flood in the Root River valley, this has included assisting landowners with enrollment in the BWSR administered Reinvest in Minnesota (RIM) conservation easement program targeting flood prone areas.

MN DNR has been assisting private landowners with wildlife habitat management in the project area for several decades. DNR also owns and manages about 1400 acres of wildlife habitat within the project area. As a land manager in the floodplain, experienced DNR staff are an invaluable resource for private lands restoration in the area.

US Fish and Wildlife Service, like the DNR, is a land owner within the floodplain and has extensive experience protecting and restoring floodplain wetlands within the project area and around the country. USFWS also has Partners for Wildlife program that provides technical assistance and some funding to landowners interesting in wildlife habitat restoration and management.

The history of conservation and partner activity is evident in the completed wetland restorations and protection within the watershed. There are 128 acres of private lands under conservation easements. Minnesota Department of Transportation in association with MN Board of Water and Soil Resources has restored and protected 420 acres of wetlands as part of a wetland bank project. The State of Minnesota owns and manages an additional 1,385 acres of forest, prairie and wetland habitat within the watershed. USFWS owns and manages another 810 acres of floodplain wetland as part of the Upper Mississippi River Wildlife and Fish Refuge.

Description of planning already completed at the field and watershed scales that identify conservation practices needed to address resource concerns: Numerous planning efforts incorporate the scientific justification for the project identified in this proposal. The Upper Mississippi River Conservation Committee's "A Working River and A River that Works", the River Resources Forum's "Environmental Pool Plans", the US Fish and Wildlife Service Comprehensive Conservation Plan; The Nature Conservancy's Conservation Action Plan for the Root River, Basin Alliance for the Lower Mississippi in Minnesota Scoping Document, and the Navigation Environmental Sustainability Program Feasibility Study are only a few examples of reports that outline the scientific and technical basis and need for floodplain and wetland restoration projects along the Mississippi River corridor.

MN DNR and Army Corps of Engineers have dedicated funds and will soon be conducting a more detailed hydrologic model and floodplain restoration project management plan for the Lower Root River. The US Fish and Wildlife Service manages a portion of the project area as the Upper Mississippi River National Wildlife and Fish Refuge and has contracted for a hydro geomorphic model to be completed in summer of 2010 that will provide detailed guidance for wetland restoration in most of the project

area. These activities are considered essential to restoring the health of the Mississippi River system, and will provide benefits not only to these specific locations, but also to the entire Mississippi River from the Twin Cities to the Gulf of Mexico.

(b) Detailed description of the watershed area:

The larger Root River watershed is 1,064,970 acres in size located in the southeast corner of Minnesota. The watershed is predominately agriculture with row crops dominating the western portion of the watershed and a mix of row crop, pasture and hay within the Driftless Area (eastern) portion of the watershed. The river drops an average of 3.4 feet per mile from Chatfield near the middle of the watershed to the Mississippi River. The lack of glacial activity and resulting karst geology have produced the most biologically diverse landscape in the state. The watershed is an attractive destination for hunters, trout anglers and bicyclists that follow the 60 mile trail along the river and a few of its tributaries.

The Lower Root River Watershed in eastern Houston County covers the lower 32,401 acres of the entire 1,032,569 acre Root River watershed. The last 16 miles of the Root River bisects the watershed until its outlet at the Mississippi River near the town of Hokah. Over 4 miles of this section of river has been confined to an earthen levee constructed with dredge material in the early 1900s and maintained ever since. This levee experiences frequent breaches causing crop and property damage each time, leaving large sediment deposits in agricultural fields and conservation lands. The Root River through this 4 mile straightened and leveed reach would likely be over 8 miles long in its natural state.

Due to the large amount of karst, this watershed, like most of the rest of the Root River, has few upland wetlands except in the very western, glaciated portion of the basin. The majority of the watershed's wetlands lie in the riparian bottomlands, the largest being in the floodplain areas closer to the Mississippi River.

The City of Hokah is the only community within the watershed boundary. Hokah has a population of 561, however only a small portion of the city is within the watershed boundary. The City of Hokah has suffered significant flood damage threatening the municipal waste treatment plant on several occasions. The City of Houston is 1.5 miles to the west of the watershed.

Table 1. Lower Root River Land Cover

Cover	% Cover
Cropland	24%
Developed	2%
Grassland	27%
Forest	39%
Marsh	8%

Figure 4. Lower Root River Land Cover

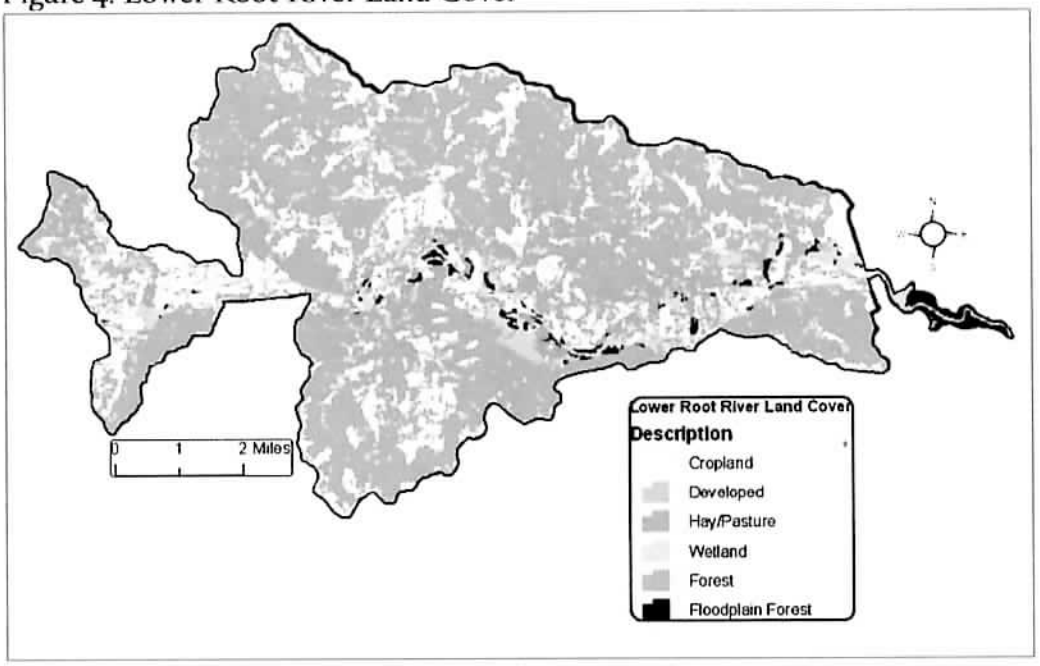
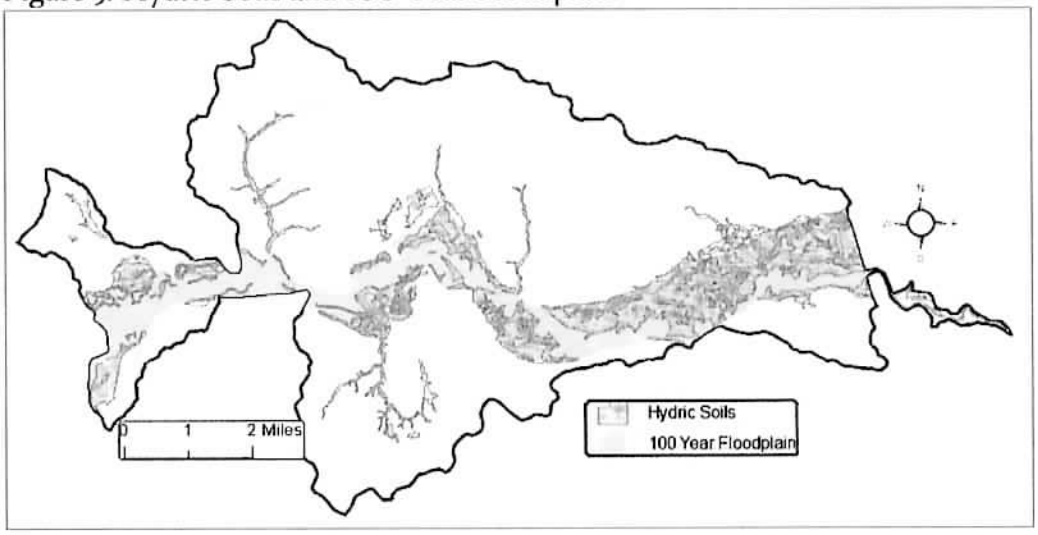


Figure 5. Hydric Soils and 100 Year Floodplain



(c) Description of partners' roles and responsibilities and capabilities:

Partner	Role	Responsibility	Capability
The Nature Conservancy	Overall coordinator; technical assistance, project outreach, Year 1 match	Coordinate and lead implementation; assist in conservation practice delivery	Local staff familiar with area and active member in local partnership
Natural Resources Conservation Service	Program funder; producer contact	Provide WREP funds; endorse contribution agreement; prepare	Current capacity is mostly adequate

		easement material, locally: provide producer prospects	
Soil and Water Conservation Districts	Producer contact; technical advisor; conservation practice assistance	Provide producer prospects; develop practice standards; assist with on-the-ground practice delivery and outreach	Current capacity is mostly adequate
US Fish and Wildlife Service	Landowner Contact, wetland restoration assistance, hydrologic modeling	Wetland restoration expertise	Adequate
MN Department of Natural Resources	Landowner Contact, private lands assistance	Restoration of state lands within project area	Adequate
Board of Water and Soil Resources	Technical Assistance funding, RIM Easement funding and engineering assistance	Provide adequate technical assistance and RIM funds to Root River SWCD, develop RIM/WREP agreement in cooperation with NRCS	Unknown pending legislative session.

(d) Description of project duration, plan of action and implementation schedule: The duration of this project is five years. A final report will be completed in 2015 after practices have been implemented and monitoring data can be compiled and analyzed. Four cooperators have already expressed interest in the WREP program within the watershed. TNC will provide initial funding for technical assistance and outreach to work one on one with producers to procure additional easement applications.

Activity	Responsible Party	Completion
Close on Pending RIM Easements	BWSR	June 30, 2010
Complete Hydro Geomorphic Model	USFWS	31-Jul-10
1st 4 Easement sign up	Root River SWCD	Aug-10
NRCS/BWSR Sign WREP/RIM Agreement	NRCS/BWSR	Sep-10
Outreach	Root River SWCD	Sep-10
2nd 5 Easements sign up	Root River SWCD/BWSR	Feb-11
1st 4 Easements Close	NRCS	Sep-11
Outreach	Root River SWCD	Nov-11
MN DNR Land Acquisition Close	MN DNR	Dec-11
1st 4 Easement Restoration	TNC	Jun-12

MN DNR Restoration/Enhancement	MN DNR	Jul-12
Outreach	Root River SWCD	Sep-12
2nd 5 Easements close	Root River SWCD	Feb-12
2nd 5 Easements Restoration/Enhancement	BWSR/BWSR	Nov-12
MN DNR Land Acquisition Close	MN DNR	Dec-12
MN DNR Restoration/Enhancement	MN DNR	Jul-12
Repeating Sequence to final restoration		Sep-14
Monitoring	USGS	Monthly

(e) Description of WREP funds needed annually:

WREP funds are needed to cover easement costs for each of the four years of the project. The Nature Conservancy will cover restoration and enhancement costs of the first easements. An agreement between NRCS and the Board of Soil and Water Resources (BWSR) will be sought to share the cost of easement, restoration and enhancement costs for subsequent funding years. The partnership between NRCS and BWSR for WREP/RIM is well received by landowners and is an exemplary program leveraging federal and state conservation dollars and effort. Easement payments will be based on the most current USDA and BWSR approved county rates. Cost-share for restoration and enhancement will use existing approved rates.

NRCS WREP Requested Funds				Leveraged Funds			
	Acquisition	Restoration	Enhancement	RIM Acquisition	Restoration Enhancement	Source	Total
2010	$1,559,235				$100,000	TNC	$1,659,235
2011	$2,222,185	$100,000	$125,000	$805,315		BWSR	$3,252,500
2012	$2,141,048	$100,000	$125,000	$735,077		BWSR	$3,101,125
2013	$2,141,048	$100,000	$125,000	$735,077		BWSR	$3,101,125
Total	$8,063,516	$300,000	$375,000	$2,275,469	$100,000		$11,113,985

(f) Estimated percentage of producers expected to participate:

There are currently 4 landowners interested in applying for WREP. 4 other landowners have expressed interest in selling their property to the MN DNR for conservation purposes and are awaiting funding approval from the state. There are 2 BWSR RIM easements with a restoration component that have been approved and will close prior to the start of this WREP project. The 2 pending wetland easements total 103 acres and a value of $268,630. Based on past experience, the level of participation by landowners in the watershed is expected to be in the 25-30% range at a minimum. This is likely to increase as outreach efforts are increased and more neighboring landowners participate. Participation is also likely to increase if payment rates are increased with the use of state

conservation funding. Past experience also shows that interest in easements and restoration within the project area is greatest following a flooding event. There have been 3 major flooding events since 2000 in the project area. However, funding for conservation easements has been unable to meet the demand from interested landowners.

(g) Participation by beginning farmers, socially disadvantaged farmers, and limited resource farmers:

There are no socially disadvantaged farmers within the project area. It is unclear if there are beginning farmers or limited resource farmers within the project area. However, due to the extensive one on one outreach that will be done for this project, these producers will be sought out and assistance provided to them.

(h) Description of wetland protection, restoration and enhancement activities:

The wetlands that once occupied the project area were a mixture of floodplain forest, wet prairie and wet brush prairie. A hydro geomorphic model being developed by the USFWS with assistance from the Army Corps of Engineers and MN DNR will help guide where and how wetland protection and restoration is carried out. The Root River SWCD will continue to work with landowners in the project area as they have done the past several years. Existing interested landowners' property lies between a large block of state forest land and a large Wildlife Management Area and will be enrolled in 2010, close in 2011 and restoration will be initiated soon after closing. Outreach and signups will continue throughout the first 3 years of the project and restorations occurring in the first spring or fall following closing on the easement. Restoration of hydrologic conditions will include levee breaches allowing for lateral connectivity and/or wetland scrapes. The Nature Conservancy will coordinate these activities with technical guidance from USFWS and MN DNR. Vegetation management will be dependent on the historic natural community and the site's hydrology. Potential restorations include enhancement with native grasses and forbs on wetland and moist habitats. Direct seeding of trees will be done in floodplain forest restoration and enhancement areas.

(i) Funds needed annually for acquisition, restoration and enhancement

FY	Acquisition	Restoration	Enhancement
2010	$1,559,235	$50,000	$50,000
2011	$3,027,500	$100,000	$125,000
2012	$2,876,125	$100,000	$125,000
2013	$2,876,125	$100,000	$125,000
Total	$10,338,985	$350,000	$425,000

(j) Outreach

The increased level of outreach that will be sponsored by TNC during this project will reach out to beginning, socially disadvantaged and limited resource farmers. Outreach will include mailed material, phone calls, on-site visits and public forums. Because there is a strong and coordinated partnership operating in the project area, landowner outreach will be divided amongst individual partners based on existing relationships with landowners. MN DNR, USFWS, Root River SWCD, Houston County Trail Committee and the Cities of Houston and Hokah are involved and working with landowners on conservation efforts. TNC staff will continue to coordinate this existing partnership and assign specific landowners to contact and share information. The partnership has been invited to the Houston County Board to broaden the partnership and increase awareness of the restoration effort. TNC will develop print information material to be distributed to project area landowners and presentation material for community groups and local governments.

A description of the plan for monitoring, evaluating, and reporting on progress made toward achieving the objectives of the agreement:

Nutrients

Project partners will rely on the nitrate-nitrite and total phosphorous data provided by the Long Term Resource Monitoring Program for the Upper Mississippi River that focuses on the Pool 8 and the sites within Pool 8 that represent the contribution from the Root River. Nutrients will be evaluated using MPCA and USGS monthly grab samples and loading values will be calculated using stream gage.

Physical

USGS operates a gage in the upstream portion of the watershed that monitors discharge and Minnesota Pollution Control Agency monitors a station at the downstream end of the watershed that monitors transparency, turbidity, dissolved oxygen, fecal coliform and temperature on a monthly basis. This data will be used to evaluate effectiveness for physical water quality parameters.

Biological

Habitat and hydrologic effects will be evaluated using the hydrologic models that are being developed by the USFWS, MN DNR and Army Corps of Engineers. Aerial extent of protection, restoration and habitat connectivity will be evaluated using ArcGIS software with data provided by partners.

Effect on migratory birds will be evaluated by USFWS staff when conducting annual surveys on the nearby refuge and surrounding conservation lands.

Description of any requested policy, procedure, and technical adjustments by program needed to achieve objectives:

In an effort to leverage state and federal wetland restoration and easement funds for this project, TNC requests NRCS and BWSR establish a Root River WREP/RIM agreement.

Root River Soil and Water Conservation District
Minnesota Soil and Water Conservation Districts
805 N. Hwy. 44/76
Agricultural Service Center
Caledonia, MN 55921
(507) 724-5261 Ext. 3

April 28, 2010

Rich Biske
The Nature Conservancy
PO Box 405
136 St. Anthony Street
Preston, MN 55965

Dear Rich,

Thank you for the opportunity to partner with you on your Mississippi River Basin Initiative (MRBI) for the lower Root River near Hokah, Minnesota.

We would be glad to commit our support to the proposal and provide technical assistance as set forth in the roposal. We understand that we will provide technical assistance on a fee for services basis.

Thank you for your efforts to restore the valuable wetlands of the Root River flood plain.

Sincerely,

Ralph Tuck
District Manager
Root River SWCD

Minnesota Department of Natural Resources

1200 Warner Road
St. Paul, MN 55106
651.259.5800

April 27, 2010

Rich Biske
The Nature Conservancy
Southeast Minnesota Office
P.O. Box 405
136 St. Anthony Street
Preston, MN 55965

RE: Mississippi River Basin Initiative Root River Project

Dear Mr. Biske:

The Lower Root River in Southeastern Minnesota (Houston County) has been significantly altered. Much of the once diverse floodplain comprised of wetlands, floodplain forests, and prairies has been converted to agricultural uses and is protected by earthen levees, constructed when the Root River was straightened and dredged in the early 1900's. These levees along with land use changes in the upland watershed have altered the natural hydrology of the Lower Root River, causing increased flooding resulting in levee breaches requiring costly repairs and threatening local communities, as well as increasing sediment and nutrient delivery to the Upper Mississippi River. These changes have severely impacted fish and wildlife habitat and recreational opportunities in this area.

A variety of local, federal, and state partners, including the Minnesota Department of Natural Resources (MNDNR) have been working to restore the floodplain and hydrology of the Lower Root River. A modeling effort to describe restoration options to landowners in the area has been partially completed. In addition, several parcels have been acquired and restored and are being managed as state wildlife management areas, natural areas, or as part of the Upper Mississippi River National Fish and Wildlife Refuge. While efforts have been ongoing, funding has been limited and a number of additional acquisition and restoration opportunities have been missed.

MN DNR and the Corps of Engineers recently signed a cost share agreement to complete a feasibility study of the Lower Root River area. This study is part of the Navigation Environmental Sustainability Program and will result in a hydraulic model and other geomorphic analysis that will improve our ability to plan and complete appropriate restoration projects in the Lower Root River area. We hope this ultimately leads to additional cost share funding for completing restoration projects.

The recently initiated Mississippi River Basin Initiative (MRBI), and selection by the Natural Resource Conservation Service of the Root River as a priority watershed for this effort provides yet another excellent opportunity to restore floodplain habitats and connectivity and improve water quality in this area. We have reviewed and support the proposal you are developing to utilize MRBI funding to secure conservation easements from willing landowners and restore floodplain wetland habitats. This work is directly compatible to our agencies goals for this area. We appreciate your leadership and hope your proposal is successful in securing funding, and look forward to working with you and other partners on this important effort.

If you need additional assistance, please contact Tim Schlagenhaft from my staff at 651-345-3365 ext 233.

Sincerely,

Joseph M. Kurcinka
Central Region Director

c: Regional Manager Team

Minnesota Board of Water & Soil Resources

April 21, 2010

Jennifer Heglund, Acting MN State Conservationist
Minnesota Natural Resources Conservation Service
375 Jackson Street, Suite 600
St. Paul, MN 55101-1854

Dear Ms. Heglund:

I am writing on behalf of the Minnesota Board of Water and Soil Resources (BWSR), Minnesota's state conservation agency, in regard to the Mississippi River Basin Healthy Watersheds Initiative (MRBI).

Minnesota is pleased to have four 8-digit HUC areas under consideration for this program: Middle Minnesota River, Root River, Sauk River, and the Upper Cedar River (multi-state with Iowa). SWCDs, watershed districts, other local units of government, partnering agencies, supporting civic groups and residents in all four of the focus areas have proven track records of success in implementing conservation through targeted efforts that result in real conservation outcomes.

In order to help ensure the success of the Minnesota projects selected for the MRBI, BWSR is committed to providing up to $300,000 of technical assistance funds in state fiscal year 2011 beginning July 1, 2010 for a two-year grant period to eligible organizations. The funding will be distributed equally among selected proposals, with a maximum contribution of $150,000 in technical assistance funding per proposal. These state funds will supplement or match federal technical assistance available for the selected project areas. Future funding cannot be guaranteed, because these funds are legislatively appropriated on a biennial basis. However, BWSR is committed to continue to help successful MRBI partnership projects as funding and priorities permit.

BWSR looks forward to providing assistance to all successful proposals. Please do not hesitate to contact me if you need additional information or have questions regarding this letter of support and commitment.

Sincerely,

John Jaschke
Executive Director

cc: Don Baloun, incoming MN State Conservationist

Bemidji	Brainerd	Duluth	Fergus Falls	Marshall	Mankato	New Ulm	Rochester
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April 26, 2010

Don Baloun, State Conservationist
USDA Natural Resources Conservation Service
375 Jackson Street, Suite 600
St. Paul, MN 55101-1854

Dear Mr. Baloun:

I am writing to express the Minnesota Department of Agriculture (MDA)'s support for the Mississippi River Basin Healthy Watersheds Initiative (MRBI) in all four of Minnesota's MRBI 8-digit HUC focus areas – the Middle Minnesota River, Root River, Sauk River, and Upper Cedar River watersheds.

To help locally led MRBI projects succeed, MDA is committed to offering guidance as needed, and as time and resources allow, in one or more of the following areas of expertise:

- **Edge Of Field Monitoring** setup, QA/QC, data analysis, interpretation and reporting , and/or developing sampling protocols
- **Nutrient Management Initiative** demonstrations/evaluations
- **Rainfall Simulator** setup, QA/QC, data analysis, interpretation and reporting
- **Drainage Water Management** systems and monitoring/evaluation
- **Cover Crop** systems and monitoring/evaluation
- **Prescribed Grazing** planning and monitoring/evaluation
- **Digital Terrain Analysis** to identify, map and prioritize critical areas for practice implementation
- **Farm Nutrient Management Assessment Program (FANMAP)** surveys to determine existing practices
- **General Technical Support** in designing and evaluating field-scale projects
- **Education and Outreach**

MDA looks forward to collaborating with other partners to support all Minnesota MRBI projects, as needed, to the extent practicable.

Attached for reference is the list of federal and state agency contacts developed following a January 2010 interagency meeting that MDA convened to discuss coordinated assistance for locally led MRBI projects. The list has been distributed to MRBI stakeholders in each of the four watershed focus areas. MDA will continue to assist with statewide MRBI stakeholder communications as needed.

Please do not hesitate to contact me if you have questions or would like additional information regarding MDA's support for the MRBI.

Sincerely,

Joe Martin
Assistant Commissioner