



Accelerated Technical Assistance Grant

Water of Concern
Lower Minnesota River

Impairment
Dissolved Oxygen

CWL Funding by Category	
Technical Assistance Funds	
SSTS Funds	\$ 100,000
Professional Development	\$ 30,000
Hired Positions	\$ 380,000
Total TA Funds	<u>\$510,000</u>
Total CWL Funding	<u>\$ 510,000</u>

PROJECT CONTACT

Kay Clark

Administrative Coordinator
kay.clark@mn.nacdnet.net

David Bucklin

Technical Coordinator
david.bucklin@mn.nacdnet.net

339 Ninth Street
Windom, MN 56101
Phone: 507 831 1153 Ext. 3

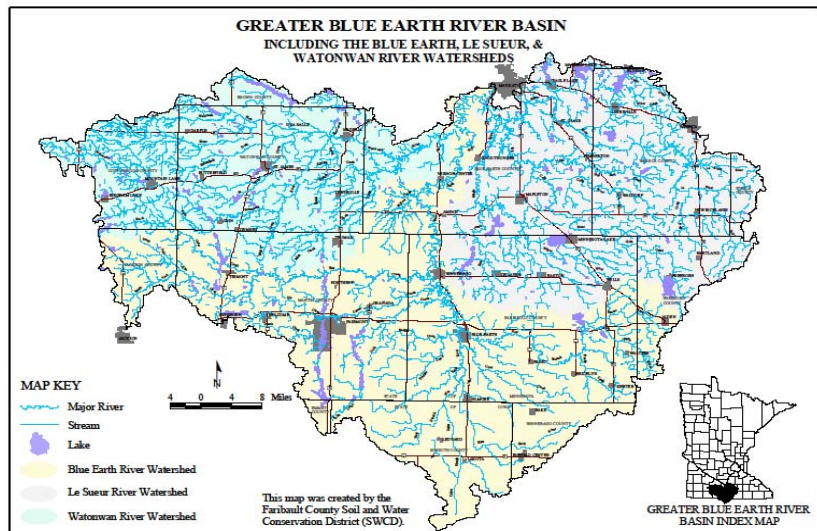
BWSR CONTACT

Matt Drewitz
Phone: 507 359 6076
matt.drewitz@state.mn.us

Project Number:
07R92

Project Description

The Greater Blue Earth River basin consists of 2,049,037 acres in the Watonwan, Le Sueur and Blue River Basins. The Greater Blue Earth River Basin Alliance or GBERBA is a watershed based organization made up of nine counties including County Commissioners, SWCD Supervisors, County Water Planners, Environmental Services Staff and SWCD employees. The GBERBA Coordinators and bookkeeper administered the grant and reported back to the respective entities through Technical and Policy meetings.



The Greater Blue Earth River Basin Alliance's mission is to lead in the implementation and promotion of economically viable watershed activities through the combined efforts of local partners and the Greater Blue Earth River Basin Alliance. GBERBA has assisted in the acceleration of basin wide projects to lower phosphorus levels in the Greater Blue Earth River Basin during low flow conditions in reference to the TMDL Lower MN River Dissolved Oxygen Implementation Plan. All projects included in this grant support the GBERBA Watershed Plan dated November 18, 2005.

Conservation Practices Implemented

Practice	Units Installed
Stormwater/Rain Gardens*	5,956 sq. feet
Shoreline Restorations*	2,700 sq feet
Stormwater Planters*	400 sq feet
Low-Mow Grass Demonstration*	16,900 sq ft
Native Vegetation Planting*	10 acres
Tree Planting*	750 trees
Rain Water Harvesting* (Rain Barrels)	6 barrels = 330 gallons

*Stormwater BMPs currently do not have pollutant reduction formulas for water quality parameters to estimate reductions. Program goals include a development of such formulas for future effectiveness reporting.

Conservation Planning Activities

Name of Plans Written	Number of Landowners Contacted	Number of Plans Written	Total Cost	Types of Practices Identified	Number of Practices Identified	Number of Practices Implemented
Nutrient Management	35	21 Plans 7,881.8 acres	\$41,160	Commercial Fertilizer and/or Manure Applications	21	21
Rain Garden Design Plans	127	6 Plans	\$1,260	Stormwater Bioretention	6	6

Contributing Partners:

Partner	Description	Grant Contribution	Leveraged Funds
EPA—319 Program	Implementation Funds	\$100,000	\$2,800
Communities	Elected Officials, Staff		N/A
Blue Earth CWP	Project Support		\$4,750
DNR Shoreland Grant	Project Support		\$15,000

Project Informational/Educational Activities

Nutrient Management Specialist

GBERBA hired a Nutrient Management Specialist to assist in developing nutrient management plans and conducting outreach with area producers. This position is housed in the Cottonwood SWCD Office and offers assistance to GBERBA counties. The initial responsibility of the Specialist was to complete training in Nutrient Management Planning. Field training and tutoring were provided by NRCS and certification was completed in December 2007. During 2008-09 twenty-one nutrient management plans were completed totaling 7,881.8 acres in four counties. Funding for this position also assisted several County Feedlot Officers and County Environmental Offices in working with producers through their Feedlot Programs.

	Newsletters, Brochures, Posters, Etc.	Tours, Fairs Farm & Home Shows	Presentations Given	Presentations by guest speakers	Other
Nutrient Management Specialist	<p><u>Nutrient Mgmt Brochures</u> ~Planning (2)</p> <p><u>Articles</u> ~Introduction of Position- (2007 & 2008) ~Manure Application in Sensitive Areas (2009)</p> <p><u>Posters</u> ~Nutrient Mgmt Signs to Ag Businesses</p>	<p>MN Cattleman's Tour and Display Booth-08 Nutrient Mgmt Display and Handouts</p> <p>GBERBA County Fairs Jackson, Watonwan, Cottonwood (2008)</p> <p>Farm & Home Shows Windom, Jackson (2008)</p>	<p>USDA Update Weekly Radio Program (15)</p> <p>Jackson Co. Producer Meeting (1)</p>	<p>Manure Economic Workshops (2009) Bob Koehler, SWROC and Jose Hernandez, U of MN—WRC Cottonwood, Jackson, Martin and Watonwan Counties.</p> <p>52 participants</p>	<p><u>Displays</u> ~Nutrient Mgmt Planning (2008) Manure ~Applications in Sensitive Areas (2008-2009) ~Nitrogen Best Mgmt Practices (2009) *Copies to all County/SWCD Offices</p> <p><u>Power Point Presentation</u> ~Created (2007)</p>



2009 County Fair Nitrogen BMP Display



Manure Spreader Calibrations and Testing



Martin County Manure Economics Workshop



Urban Outreach Specialist

This position was created to increase the understanding of the causes and consequences of stormwater, and options for managing stormwater in small non-MS4 communities. In order to meet the education and project needs of the communities, an Urban Outreach Specialist position was created to work one on one with communities located within Faribault County and others throughout the Greater Blue Earth River Basin. The specialist provides communities with assistance in developing and delivering presentations, education campaign materials, educates about alternative stormwater management practices, and assists communities with the implementation of stormwater projects. The target audience includes citizens, community leaders, municipal staff, and engineering consultants.



All educational materials, reports, and planning for this project can be found at <http://www.faribaultcountyswcd.com/> and click on:

	Newsletters, Brochures, Posters, Etc.	Education	Presentations Given	Presentations by guest speakers	Other
Urban Outreach Specialist	~7 quarterly newsletters to city staff and elected officials ~11 unique posters for education campaign ~1 rain barrel brochure ~2 rain garden workbooks	~11 community needs assessments completed in small communities of Faribault and Martin Counties ~3 classes participated in the Stormwater Assessment & Retrofit Project for High School Students ~Impervious Surface Activity for 5th Graders ~2 Environmental Day Camps ~Envirothon ~3 years County Fair Stormwater Displays ~1 Community Stormwater Stenciling Project in Wells ~1 Rain Barrel Education and Assembly Workshop	~Understanding Stormwater for City Officials ~Presented at 11 City Council Meetings ~Presented at 5 Master Gardener Workshops ~1 Metro Rain Garden Tour	~3 Metro Blooms Workshops in Communities ~2 MECA Workshops ~1 Blue Thumb Rain Garden Workshop ~1 Metro Association of SWCD's Presentation on Rain Garden Design and Installation Contractors	~8 Power Point Presentations Created for Unique Audiences ~2 Displays Small Community Stormwater Project and Rain Gardens ~Compiled 9 Resource Binders for GBERBA Partners ~Started a Rain Barrel Program for Community Residents



Minnesota Lake Lakeshore Restoration



Faribault County Fair



Rain Garden Installation



Rain Barrel Demonstration



Environmental Day Camp



Wells Storm Drain Stenciling

Conservation Agronomist

The Conservation Agronomist Position is a collaborative effort between University of MN Extension Service, Rural Advantage and GBERBA. This position focuses on education and applied research around sustainable farming systems that promote higher levels of non-point source pollution mitigation practices. In addition this position works with local and regional educators, as well as, University of Minnesota Researchers, to conduct applied research and use demonstration of appropriate principles and practices to meet these goals. This position works across southern Minnesota with at least 75% of their effort dedicated to the Greater Blue Earth River Basin.

	Newsletters, Brochures, Posters, Etc.	Tours, Fairs Farm & Home Shows	Presentations Given	Presentations by guest speakers	Other
Conservation Agronomist	Press Releases & Listserve Announcements <u>Written</u> (2008 & 2009) ~3rd Crop Schedule, Topics & Speakers ~Biomass: Production & Uses ~Getting Fruity 3rd Crop ~Rural Entrepreneurship ~Payment for Ecological Service ~Value of Manure ~3rd Crop Walk-n-Talks ~Growing Crops for Bio-Energy ~Wheat Day Walk-n-Talk	~Biomass: Production and Uses 3rd Crop Producer Meeting -45 attending ~Getting Fruity 3rd Crop Producer Meeting -18 attending ~Rural Entrepreneurship 3rd Crop Producer Meeting -35 attending ~Payment for Ecological Services 3rd Crop Producer Meeting -35 attending ~Value of Manure Workshop—Martin Co. -26 attending ~Value of Manure Workshop-Jackson Co. -9 attending ~3rd Crops Producer Meeting—20 attending ~Biomass Markets Producer Meeting—25 attending ~Cover Crop/Carbon Producer Meeting— 8 attending ~Ecological Commodity Markets—Producer Meeting—15 attending	Biomass Presentation—Madelia (2008) Introduction to Native Grasses and Forbs—3rd Crop Producer Meeting — Biomass Introduction to Native Grasses and Forbs— Growing Bio-Energy Crops	Drainage and Water Quality Workshop (2007) BMP Challenge Workshop (2007) Hazelnut Growers Meeting	<u>Data Collection</u> ~Conservation Tillage Team-08 <u>Displays</u> Martin Co Library System Display Rural Advantage Career Day Display—Fairmont Area Schools 11—Crop Walk-n-Talks Throughout Southern MN -653 participants One-on-One Consultations ~105 completed



3rd Crop Walk-n-Talk at Seven Story Farm, Belle Plaine



Alternative Third Crops Morkocy Curly Willow and SROC Hybrid Willow



Grape 3rd Crop Walk-n-Talk at Bob Lau's, Pemberton



Project Outcomes: detail specific project outcomes that work towards meeting Restoration (total maximum daily load studies) and Protection (local water plans) water quality goals

For restoration project, please include overall TMDL Point Source Reductions Needed (% & Pounds) Overall TMDL Non-Point Source Reductions Needed (% & Pounds) Estimated Total TMDL Non-Point Source Reduction (% & Pounds) from Projects.

As stated in the Lower MN River Dissolved Oxygen TMDL Implementation Plan, the non-permitted communities throughout the Greater Blue Earth Watershed are expected to meet a 20% reduction in phosphorus in less than 20 years. In order to meet this goal in the watershed, planning with our approximately 41 small communities (this does not include unincorporated communities) needs to begin now. BMP projects will need to include both traditional and innovative approaches to achieve the reductions. These projects may include rain gardens, retention basins, tree plantings and rain harvesting.

Since the MN River DO TMDL Implementation Plan focuses on low flow conditions, agricultural practices exclusively targeting phosphorus reductions will have a limited impact because runoff is minimal. The TMDL Report did include agricultural practices as a way to reduce runoff during higher flow times thereby increasing the amount of ground water recharge during dry periods. This temporarily stored ground water seeps back in the river and increases the flow during medium and low flow periods.

Several implementation targets have been identified in the Lower MN River DO TMDL Plan. One of those targets is manure application which is directly correlated with our Nutrient Management Specialist position. This position works with producers to complete a manure management plan for their livestock operations.

Another target is crop residue or equivalent practices where crop residue holds soil in place and reduces overland runoff. Equivalent BMPs include combinations of terraces and alternative crops, etc. as determined by comparison of cropping factors and practice factors in the Revised Universal Soil Loss Equation. To address this target the Conservation Agronomist position was created through University of Minnesota Extension Service and Rural Advantage to work with producers on alternative cropping systems in Southern Minnesota.