

# ACRONYMS

## AGENCIES

### State

BWSR	Board of Water and Soil Resources
CWC	Clean Water Council
DNR	Department of Natural Resources
LCCMR	Legislative-Citizen Commission on Minnesota Resources
LOHC	Lessard Outdoor Heritage Council
MDA	Minnesota Department of Agriculture
MDH	Minnesota Department of Health
MDOT	Minnesota Department of Transportation
MGS	Minnesota Geological Service
MMB	Minnesota Office of Management and Budget
MPCA	Minnesota Pollution Control Agency

### Federal

ACOE	Army Corps of Engineers
CFSA	Consolidated Farm Services Agency
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FSA	Farm Service Agency
NRCS	Natural Resources Conservation Service
RC&D	Resource Conservation & Development
RECD	Rural Economic and Community Development
USDA	United States Department of Agriculture
USF&WS	United States Fish and Wildlife Service
USGS	United States Geological Survey

# ACRONYMS CONT'D

## AGENCIES

### Regional/Local

CAC	Citizen Advisory Committee
CHS	Community Health Service
JPB	Joint Powers Board
LGU	Local Government Unit
RDC	Regional Development Commission
SWCD	Soil and Water Conservation District
TAC	Technical Advisory Committee
WD	Watershed District
WMO	Watershed Management Organization

## ASSOCIATIONS

### State

ADA	Association of (Watershed) District Administrators
AMC	Association of Minnesota Counties
AMT	Association of Minnesota Townships
AMWRAP	Association of Minnesota Water Resources Administrators and Planners
LMC	League of Minnesota Cities
MACDE	Minnesota Association of Conservation District Employees
MACPZA	Minnesota Association of County Planning and Zoning Administrators
MARC&D	Minnesota Association of Resource Conservation and Development
MASWCD	Minnesota Association of Soil and Water Conservation Districts
MAWD	Minnesota Association of Watershed Districts
MOWA	Minnesota On-site Wastewater Association
OSTP	On-site Sewage Treatment Program

# ACRONYMS CONT'D

## ASSOCIATIONS

### National

NACD	National Association of Conservation Districts
NWF	National Wildlife Federation
SWCS	Soil and Water Conservation Society

## PROGRAMS

### State

CLMP/CSMP	Citizens Lake Monitoring Program/Citizen Stream Monitoring Program
CLWP	Comprehensive Local Water Planning
CREP	Conservation Reserve Enhancement Program
C-S	Cost-Share Program
CWMA	Cooperative Weed Management Areas
CWL	Clean Water Legacy
CWP	Clean Water Partnership
LAP	Lake Assessment Program
MAWQCP	MN Agricultural Water Quality Certification Program
LWRPMP	Local Water Resources Protection and Management Program
NPEA	Nonpoint Engineering Assistance
NRBG	Natural Resources Block Grant
PFM	Private Forestry Management
PWP	Permanent Wetland Preserve
RIM	Reinvest in Minnesota
SDS	State Disposal System
SLR	Streambank, Lakeshore, and Roadside Program
SRF	State Revolving Fund
WCA	Wetland Conservation Act

# ACRONYMS CONT'D

## PROGRAMS

### Federal

ACEP	Agricultural Conservation Easement Program
CRP	Conservation Reserve Program
CSP	Conservation Stewardship Program
EQIP	Environmental Quality Incentives Program
FDR	Flood Damage Reduction
FEMA	Federal Emergency Management Act
NPDES	National Pollutant Discharge Elimination System
SHI	Soil Health Initiative
WBP	Water Bank Program
WRP	Wetland Reserve Program

### Local

SSTS	Sub-surface Sewage Treatment Systems
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## TERMS

CTI	Compound Topographic Index (“Wetness Index”)
DEM	Digital Elevation Model
GIS	Geographical Information System
GPS	Geographical Positioning System
HUC	Hydrologic Unit Code
LiDAR	Light Detection and Ranging
MMP	Manure Management Plan
NPS	Nonpoint Source Pollution
PWI	Public Waters Inventory
SPI	Stream Power Index
TMDL	Total Maximum Daily Load

## DEFINITIONS & WEBSITES

BWSR	<p>Board of Water and Soil Resources. The state soil and water conservation agency, it administers programs that prevent sediment and nutrients from entering our lakes, rivers and streams; enhance fish and wildlife habitat; and protect wetlands. The 20 member board consists of representatives of local and state government agencies and citizens.</p> <p><a href="http://www.bwsr.state.mn.us/">http://www.bwsr.state.mn.us/</a></p>
CWC	<p>Clean Water Council. Created through the Clean Water Legacy Act to advise on the administration and implementation of the Clean Water Legacy Act.</p> <p><a href="http://www.pca.state.mn.us/index.php/about-mpca/mpca-overview/councils-and-">http://www.pca.state.mn.us/index.php/about-mpca/mpca-overview/councils-and-</a></p>
DNR	<p>Department of Natural Resources. Department that works to integrate and sustain the interdependent values of a healthy environment, a sustainable economy, and livable communities.</p>
LCCMR	<p>Legislative-Citizen Commission on Minnesota Resources. Purpose is to make funding recommendations to the legislature for special environmental and natural resources projects, primarily from the Environment and Natural Resources Trust Fund (ENRTF).</p> <p><a href="http://www.lccmr.leg.mn/">http://www.lccmr.leg.mn/</a></p>
LOHC	<p>Lessard Outdoor Heritage Council. Established by the legislature with the responsibility of providing annual funding recommendations to the legislature from the Outdoor Heritage Fund.</p>
MDA	<p>Minnesota Department of Agriculture. Responsible for ensuring the integrity of our food supply, the health of the environment, and the strength of our agricultural economy. Three general areas of responsibility include: protecting our food supply, protecting our natural resources, and cultivating our agricultural economy.</p> <p><a href="http://www.mda.state.mn.us/">http://www.mda.state.mn.us/</a></p>
MDH	<p>Minnesota Department of Health. <a href="http://www.health.state.mn.us/">http://www.health.state.mn.us/</a></p>
MDOT	<p>Minnesota Department of Transportation. <a href="http://www.dot.state.mn.us/">http://www.dot.state.mn.us/</a></p>
MGS	<p>Minnesota Geological Service. <a href="http://www.mngs.umn.edu/service.htm">http://www.mngs.umn.edu/service.htm</a></p>
MMB	<p>Minnesota Office of Management and Budget. <a href="http://www.mmb.state.mn.us/">http://www.mmb.state.mn.us/</a></p>
MPCA	<p>Minnesota Pollution Control Agency. Purpose is to monitor environmental quality, offer technical and financial assistance, and enforces environmental regulations.</p>

## DEFINITIONS & WEBSITES

ACOE	Army Corps of Engineers. <a href="http://www.usace.army.mil/">http://www.usace.army.mil/</a>
EPA	Environmental Protection Agency. Purpose is to protect human health and the environment
FEMA	Federal Emergency Management Agency. <a href="http://www.fema.gov/">http://www.fema.gov/</a>
FSA	Farm Service Agency. Administers farm commodity, crop insurance, credit, environmental, conservation, and emergency assistance for farmers and ranchers. <a href="http://www.usda.gov/wps/portal/usda/usdahome?contentid=FSA_Agency_Splash.xml">http://www.usda.gov/wps/portal/usda/usdahome?contentid=FSA_Agency_Splash.xml</a>
NRCS	Natural Resources Conservation Agency. Assists in conservation for natural resources, ensures private lands are conserved, restored, and more resilient to environmental challenges.
RC&D	Resource Conservation & Development. USDA program administered by the NRCS to accelerate conservation, development, and utilization of natural resources, improve general level of economic activity, and to enhance the environment and standard of living. Initiated in 1962 under the Food and Agriculture Act of 1962
RECD	Rural Economic and Community Development. <a href="http://www.rurdev.usda.gov/">http://www.rurdev.usda.gov/</a>
USDA	United States Department of Agriculture. Federal agency that provides assistance and knowledge on food, agriculture, natural resources, rural development, nutrition, and related issues.
USF&WS	United States Fish and Wildlife Service. A bureau within the Department of the Interior whose mission is to work with others to conserve, protect, and enhance fish, wildlife and plants, and their habitats for the continuing benefits of the American people. <a href="http://www.fws.gov/">http://www.fws.gov/</a>
USGS	United States Geological Survey. A science organization that provides impartial information on the health of our ecosystems and environment, the natural hazards that threaten us, the natural resources we rely on, the impacts of climate and land use change, and the core science systems that help us provide timely, relevant, and usable information. <a href="http://www.usgs.gov/">http://www.usgs.gov/</a>

## DEFINITIONS & WEBSITES

CAC	Citizen Advisory Committee. A regional or local network of citizens whose purpose is to provide identify and assist in establishing goals for issues of concern, serve as a communication link between the organization and the community, and provide feedback and assistance.
JPB	Joint Powers Board. A board of people made up from an entity comprised of two or more public authorities that operate collectively to represent the needs of the group/ area/environment.
LGU	Local Government Unit. An administrative and political government unit subsidiary to the national government which could itself consist of sub-units. They are generally the main point of contact for certain services/decisions.
SWCD	Soil and Water Conservation District. Political subdivisions of the state established under Minnesota Statute 103C that is governed by a board of elected officials and whose purpose is to assist landowners with conservation practices that protect natural resources.
TAC	Technical Advisory Committee. A group of people who provide technical and expert advice
WD	Watershed District. Special government entities that monitor and regulate the use of water in watersheds surrounding various lakes and rivers in the state.
ADA	Association of (Watershed) District Administrators. A group of people who make up the district administrators for watershed districts  <a href="http://www.mnwatershed.org/index.asp?Type=B_DIR&amp;SEC={6811B481-16F4-4E46-982F-6DA903792BD4}">http://www.mnwatershed.org/index.asp?Type=B_DIR&amp;SEC={6811B481-16F4-4E46-982F-6DA903792BD4}</a>
AMC	Association of Minnesota Counties. A voluntary, non-partisan statewide organization that assists the counties in providing effective county governance to the people of Minnesota.  <a href="http://www.mncounties.org/about_amc.html">http://www.mncounties.org/about_amc.html</a>
AMT	Association of Minnesota Townships. <a href="http://www.mntownships.org/">http://www.mntownships.org/</a>
MACDE	Minnesota Association of Conservation District Employees. <a href="http://www.macde.us/">http://www.macde.us/</a>
MASWCD	Minnesota Association of Soil and Water Conservation Districts. A nonprofit organization which exists to provide leadership and a common voice for MN SWCDs  <a href="http://www.maswcd.org/index.htm">http://www.maswcd.org/index.htm</a>
MAWD	Minnesota Association of Watershed Districts. <a href="http://www.mnwatershed.org/">http://www.mnwatershed.org/</a>
MOWA	Minnesota Onsite Wastewater Association. <a href="http://mowa-mn.com/">http://mowa-mn.com/</a>

## DEFINITIONS & WEBSITES

NACD	National Association of Conservation Districts. <a href="http://www.nacdnet.org/">http://www.nacdnet.org/</a>
OSTP	Onsite Sewage Treatment Program. <a href="http://www.septic.umn.edu/">http://www.septic.umn.edu/</a>
NWF	National Wildlife Federation. <a href="http://www.nwf.org/">http://www.nwf.org/</a>
SWCS	Soil and Water Conservation Society. <a href="http://www.swcs.org/">http://www.swcs.org/</a>
CLMP/CSMP	Citizens Lake Monitoring Program/Citizen Stream Monitoring Program. <a href="http://www.pca.state.mn.us/index.php/water/water-monitoring-and-reporting/volunteer-water-monitoring/volunteer-surface-water-monitoring.html">http://www.pca.state.mn.us/index.php/water/water-monitoring-and-reporting/volunteer-water-monitoring/volunteer-surface-water-monitoring.html</a>
CLWP	Comprehensive Local Water Planning. The adoption and implementation of local water management plans that are based on local priorities.
CREP	Conservation Reserve Enhancement Program. A voluntary land retirement program that helps agricultural producers protect environmentally sensitive land, decrease erosion, restore wildlife habitat, and safeguard ground and surface water.
C-S	Cost-Share Program. Monetary support provided to the SWCDs to share the cost of systems or practices for erosion control, or water quality improvements that are designed to protect and improve soil and water resources.
CWL	Clean Water Legacy. An act designed to address the concerns and remediation of Minnesota's impaired waters
CWMA	Cooperative Weed Management Area. A partnership of federal, state, and local government agencies, tribes, individuals, and various interested groups that manage noxious weeds or invasive plants in a defined area.
CWP	Clean Water Partnership. A program through the MPCA designed to control nonpoint source pollution through watershed management to protect and improve surface and ground water in Minnesota.
LAP	Lake Assessment Program. Water quality data collected from Minnesota lakes from its staff, citizens, and partners used to assess the condition of Minnesota Lakes (MPCA)
LWRPMP	Local Water Resources Protection and Management Program. A program through BWSR that aims to protect and enhance Minnesota's surface water and groundwater through local comprehensive water management.
NPEA	Nonpoint Engineering Assistance. A program through BWSR designed to provide engineering assistance to landowners, via soil and water conservation districts, for a variety of non-point water quality management practices
NRBG	Natural Resources Block Grant. A composite of base grants available to local government units that help them implement programs designed to protect and improve water resources. BWSR.



## DEFINITIONS & WEBSITES

PFM	Private Forestry Management. Historically a rather large program through the DNR designed to assist private landowners in developing forest management plans, the program has gone through large cuts recently.
PWP	Permanent Wetland Preserve. Designed to acquire permanent easements on land containing types 1 (seasonally flooded basins or floodplains), 2 (wet meadows), 3 (shallow marshes), or 6 (shrub swamps) wetlands as deemed by the USFWS through BWSR.
RIM	Reinvest in Minnesota. A program through the BWSR designed to protect and improve water quality, reduce soil erosion, and enhance fish and wildlife habitat on privately owned lands by retiring environmentally sensitive lands from agricultural production (began in 1986).
SLR	Streambank, Lakeshore, and Roadside Programs. A state program to provide financial assistance to prevent erosion on streambanks, lakeshores, and roadsides.
SRF	State Revolving Fund. A fund administered by the state for the purpose of providing low-interest loans for investments in water and sanitation infrastructure, and the implementation of nonpoint source pollution.
WCA	Wetland Conservation Act of 1991 was designed to protect wetlands in the state of Minnesota administered by BWSR and assisted by SWCDs
ACP	Agricultural Conservation Program. A program administered by the Farm Service Agency that was the oldest and largest cost-share program, in 1996 it was terminated and replaced by the Environmental Quality Incentives Program (EQIP)
CRP	Conservation Reserve Program. A voluntary program available to agricultural producers to help them use environmentally sensitive lands for conservation benefits.
EQIP	Environmental Quality Incentives Program. A voluntary program available to agricultural producers that provides technical and financial assistance through contracts up to 10 years in length.
FDR	Flood Damage Reduction. Provides technical and financial assistance to LGUs for reducing the risk and extent of flood damages.
FEMA	Federal Emergency Management Act. <a href="http://www.fema.gov/">http://www.fema.gov/</a>
SHI	Soil Health Initiative. Program as part of EQIP that promotes health soils to reduce wind and water erosion. Producers can apply for financial assistance to carry out one or more of the core conservation practices to improve their farm's soil health.
WBP	Water Bank Program. A fund intended to keep water on the land for the benefit of migratory wildlife, as well as preserving and conserving wetlands, conserving surface waters, reducing erosion, and contributing to flood control.

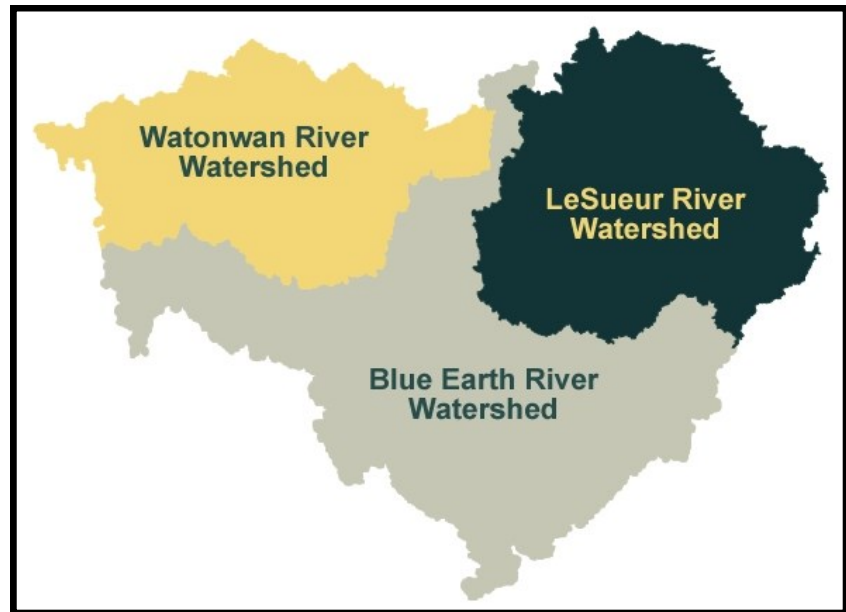
# DEFINITIONS & WEBSITES

WRP	Wetland Reserve Program. A voluntary program designed to protect, restore, and enhance wetlands on their property.
SSTS	Sub-surface Sewage Treatment Systems. Regulates domestic septic systems to protect public health and the environment
CTI	Compound Topographic Index. A secondary attribute calculated from Raster data in GIS systems that is a quantification of the position of a site in the local landscape. Often referred to as the steady state wetness index. Identifies areas where water collects or ponds. $CTI = \ln(\text{Aspect} / \text{Slope})$
DEM	Digital Elevation Model. A digital model or 3D representation of a terrain's surface created from terrain elevation data.
GIS	Geographical Information System. A system designed to capture, store, manipulate, analyze, manage, and present all types of geographical data.
GPS	Geographical Positioning Systems. A space-based satellite navigation system that provides location and time information.
HUC	Hydrologic Unit Code. A sequence of numbers or letters which identifies a hydrologic feature, such as lakes, rivers, or watersheds.
LiDAR	Light Detection and Ranging. An optical remote sensing technology that can measure distance to, or other properties of, targets by illuminating the target with laser light and analyzing the backscattered light.
NPS	Non-point Source Pollution. Refers to both water and air pollution from diffuse sources
SPI	Stream Power Index. A secondary attribute calculated from raster data in GIS systems that is a quantification of the potential erosive power of overland flow. $SPI = \ln(\text{Area} * \text{Slope})$
TMDL	Total Maximum Daily Load. A regulatory term that describes the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards.
1W1P	One Watershed One Plan. Comprehensive planning on a watershed scale rather than on

# GBERBA History

The Greater Blue Earth River Basin Alliance was formed during the summer of 2003. Two local natural resource groups (Blue Earth River Basin Initiative and the South Central Minnesota Comprehensive Water Planning Project) joined forces to form this Alliance. The Greater Blue Earth River Basin Alliance consists of Commissioners and County Local Water Management staff, Soil and Water Conservation District (SWCD) Supervisors and staff of ten Counties in South Central Minnesota. These counties are:

- Blue Earth
- Brown
- Cottonwood
- Faribault
- Freeborn
- Jackson
- Le Sueur
- Martin
- Waseca
- Watonwan



One county, Steele, at this time, is not a member of the Alliance. This county decided to not join at this time due to the minimal amount of land it has in the watershed. The Blue Earth River Watershed crosses the Minnesota State line into Iowa. There are three counties in Iowa that have land in the Blue Earth River Watershed. These Iowa counties are: Emmet, Kossuth, and Winnebago. The Alliance will strive to increase membership.

The organization consists of a Policy Board that oversees the Alliance. An Executive Committee and a Technical Committee are under the Policy Board. A Joint Powers Agreement is on file and each Alliance member has a copy of the agreement.

The Alliance Policy Board and Executive Committee meets bi-monthly and the Technical Committees meet on a monthly basis.

In January 2005, the group participated in a strategic planning session. At this meeting the group worked together to see what is needed to be able to obtain grant funding. The organization structure was discussed along with the top water quality/quantity issues of the watershed. Objectives and action items were then formed and prioritized. Policies were developed. In the Spring of 2005, the Greater Blue Earth River Basin Alliance became a fully structured organization.

# Watershed Description

The Greater Blue Earth River Watershed (GBERW), a tributary of the Minnesota River, covers approximately 2.26 million acres and includes parts of eleven South Central Minnesota counties and three Iowa counties. The Le Sueur and Watonwan Rivers join the Blue Earth River before it joins the Minnesota River at Mankato.

Former Minnesota Governor, Arne Carlson, challenged residents of the watershed to make the Minnesota River “fishable and swimmable by 2002.” The deadline has come and where are we? Studies indicate that the river has improved, but still the Minnesota River is the greatest contributor of nutrients and sediment to the Mississippi River and contributes significantly to the hypoxia zone in the Gulf of Mexico. The GBERW is a large contributor of sediment and excess nutrients to the Minnesota River.

Pre settlement vegetation was deciduous woods in the northern part of the Greater Blue Earth River Watershed. South of the hardwoods were flat plains and tall grass prairies. Today the watershed is generally agriculture with approximately eighty four percent (84%) of the watershed being cropped land. Agriculture is dominated by corn and soybeans (92% of the cropped lands). Some of the world’s best soil and crops are found in this area. The watershed is a mixture of glacial lake plains, moraines, and till plains. Some stream banks have steep slopes and are often cut by the fast flowing rivers. The soil is poorly drained clay and silt/clay soils, requiring extensive tiling and ditching. The climate boasts extremes of cold and heat and about 30 in/yr of precipitation.

Water quality concerns in the watershed are suspended sediment, excess nitrates and phosphorus, pesticides, pathogens, and biological oxygen demand. High nutrient and sediment has been linked to wetland loss (80% reduction) and intensive drainage. Water quantity is also a concern as the water comes out of the system at much faster rates with the artificial drainage set up. Feedlots are common in the Greater Blue Earth River Watershed as 50% of the hogs and 30% of the cattle are raised within the southeastern part of the Minnesota Watershed.

The MN River Assessment Project (MRAP) report (1992) showed the Blue Earth River delivered 46% of the flow to the Minnesota River at Mankato and 55% of the suspended sediment and 69% of the nitrogen load. The 2000 monitoring results show that the Greater Blue Earth River Watershed contains high levels of sediment and nutrients.

Phase I Diagnostic Studies and implementation plans are complete for the Blue Earth, Le Sueur, and Watonwan River Watersheds. Individual sub watersheds are also working on implementation with the Minnesota Pollution Control Agency’s Clean Water Partnership (CWP) Program and 319 funding. Local county water plans also address watershed priorities impacting the Greater Blue Earth River Watershed. Each county also has a Comprehensive Water Plan with their priorities listed for each watershed. The Minnesota River Basin Plan was developed from ten years of research and information gathered by the Minnesota River Citizen’s Advisory Committee. (Information above collected out of the Greater Blue Earth River Watershed Initiative application, 2003)

## GRANTS SECURED

2007	CWL Grant—Cost-share Funding/AgBMP Loans	\$363,000
2007	CWL Grant—SSTS Planning, Training, Positions	\$510,000
2008	CWL Grant—Professional Development (Training)	\$330,000
2009	CWL Grant—Positions	\$172,986
2009	CWL Grant—Ag and Urban BMP C-S	\$122,845
2009	MPCA—319 Grant—AgBMP C-S	\$108,000
2009	MPCA—CWP Grant—Positions	\$227,600
2009	CWL CWMA Grant—(Partnership with Martin SWCD)	\$20,000
2010	CWF Grant—Ag and Urban BMP C-S	\$243,250
2010	CWF Grant—Conservation Drainage	\$39,798
2010	CWL CWMA Grant—(Partnership with Martin SWCD)	\$15,000
2011	CWF Grant—Positions	\$242,075
2011	CWF Grant—Shoreland Improvement	\$100,000
2012	CWF Grant—Positions	\$150,430
2012	CWL CWMA Grant—(Partnership with Martin SWCD)	\$20,000
2013	CWF Grant—Conservation Drainage Pilot	\$170,000
2013	CWF Grant—Ravine & Gully Stabilization	\$425,000
2014	CWF Grant—Ravine & Gully Stabilization	\$378,673
2014	CWF Grant—Le Sueur Watershed Technician	\$134,000
2014	CWF Grant—Watonwan Watershed Technician	\$132,000
2015	MPCA 319 Grant—Drainage Partnership	\$145,600
2015	MPCA CWP Grant—Drainage Partnership	\$147,200
2015	MDA—MAWQCP	\$80,000.00
2016	CWF Grant—Watonwan hDEM	\$52,280
2016	CWF Grant—Blue Earth/Le Sueur hDEM	\$212,000
2016	MDA—MAWQCP	\$394,800
2017	CWF Grant—Multipurpose Drainage Management	\$301,200
2017	MDA—MAWQCP	\$407,000
2017	CWF Grant—Watonwan Resource Technician	\$99,000
2017	MPCA 319 Grant—TMDL Implementation	\$400,000
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		<b>\$6,143,837</b>

# POSITIONS FUNDED

## **Administrative Coordinator & Technical Coordinator**

These positions provide the administrative and technical guidance for GBERBA.

## **Financial Coordinator**

This position oversees the financial and accounting of funds secured by GBERBA through grants and from member dues from each SWCD/County.

## **Watowan Watershed Technician**

This position provides technical assistance to landowners concerning conservation practices and programs. This position is based out of the Cottonwood SWCD office and will work through the local SWCDs/Counties including: Watowan, Cottonwood, Blue Earth, Brown, and Martin. Funding for this position has been secured through 2019

## **Le Sueur Watershed Technician**

Formerly the Cobb Watershed Technician position. This position provides technical assistance to landowners concerning conservation practices and programs. This position is based out of the Blue Earth SWCD office and will work through the local SWCDs/Counties including: Blue Earth, Faribault, Freeborn, Le Sueur, and Waseca. Funding for this position has been secured through 2017.

## **Blue Earth Watershed Technician (funding being sought)**

This position provides technical assistance to landowners concerning conservation practices and programs. This position will work through the local SWCDs/Counties including: Blue Earth, Cottonwood, Faribault, Freeborn, Jackson, Martin, and Watowan.