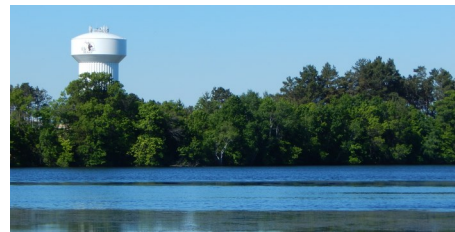




Sherburne SWCD Conservation Tour



Sherburne Soil & Water Conservation District
14855 Highway 10
Elk River, MN 55330
(763) 241-1170 Ext. 3
www.sherburneswcd.org

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Welcome!

Thank you for attending the 2017 Sherburne SWCD Conservation Tour!

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Sherburne SWCD Mission Statement

The Sherburne County Soil & Water Conservation District is dedicated to working directly with landowners and agencies in order to promote the wise and sustainable use of our land and water related resources to educate and inform the public about these uses; to help solve the resource problems within the District and to serve as a county wide natural resource information and referral center.

Notes

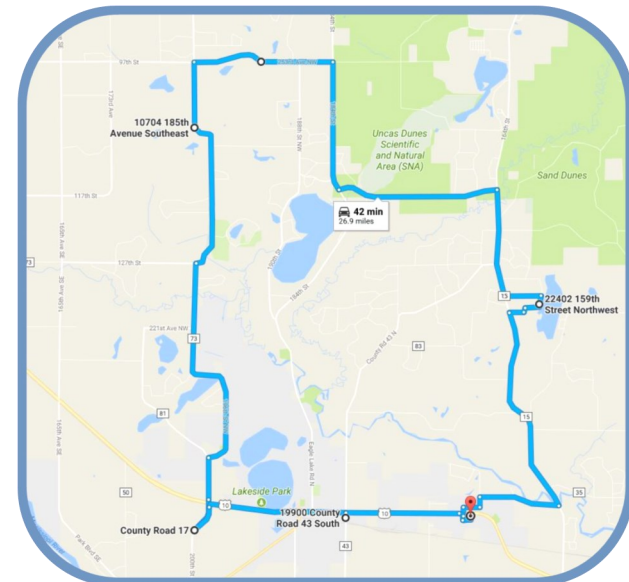
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Notes

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Itinerary

Start	9:00 a.m.	Friendly Buffalo Event Center
	9:00 - 9:15	Travel Time
1 st Stop	9:15- 9:35	ALS Presentation Birch Lake
	9:35 - 9:55	Stormwater Management Birch Lake
	9:55 - 10:15	Travel Time
2 nd Stop	10:15 - 10:45	Native Prairie Presentation
	10:45 - 11:00	Travel Time
3 rd Stop	11:00 - 11:30	Soil Health Presentation
	11:30 - 11:35	Travel Time
4 th Stop	11:35 - 12:00	Tree Pruning Demonstration Big Lake
	12:00 - 12:05	Travel Time
Return	12:05	Friendly Buffalo Event Center
Lunch	12:30 - 2:30	Volunteer Appreciation Luncheon



Aquatic Invasive Species Presentation Birch Lake



AIS Information

- 5 lakes listed as "infested" for AIS (Eurasian Water Milfoil)
- AIS Prevention approached by:
 - Education and Public Awareness
 - Inspections & Enforcement
 - Early Detection
 - Collaboration and Assistance with local lake associations / districts

Aquatic Invasive Species

AIS are plants, animals, or bacteria that are not native to our lakes and streams in the Midwestern United States. Introductions of these non-native species can result in great ecological and/or recreational problems. Recognizing this, the State of Minnesota provides each county with funds to implement AIS prevention activities.

Sherburne County Sheriff Water Patrol AIS Partnership

Sherburne County Water Patrol staff generally spend 15-20 hours per week on various Sherburne County lakes. The primary purpose of the visits are to focus on water safety and compliance with boater laws and regulations. However, this interaction with the public offers and opportunity for education on AIS as well, along with applicable State of Minnesota AIS laws. The partnership with Sherburne SWCD has resulted in additional training for Water Patrol staff, who then engage boaters on the issue of AIS and conduct spot checks of vehicles that might be transporting AIS. Deputy Petroske and his crew summarize their interactions with the public during Summer holiday weekends in a report and this information is shared with the public by Sheburne SWCD.



Special Thanks!

We would like to thank all of those who made this Tour possible!

Sherburne County Sheriff's Dept

Big Lake Township

Tom Hammer

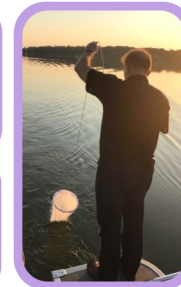
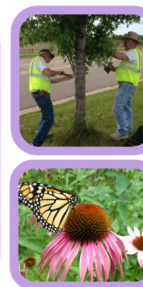
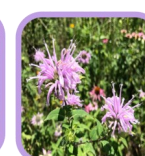
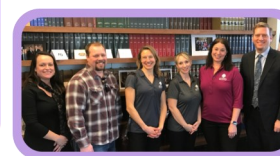
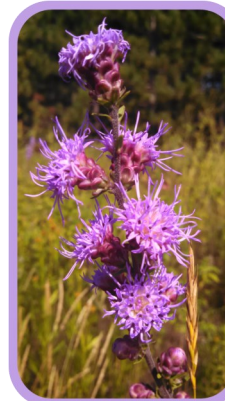
The Friendly Buffalo

Stearns County SWCD

NRCS

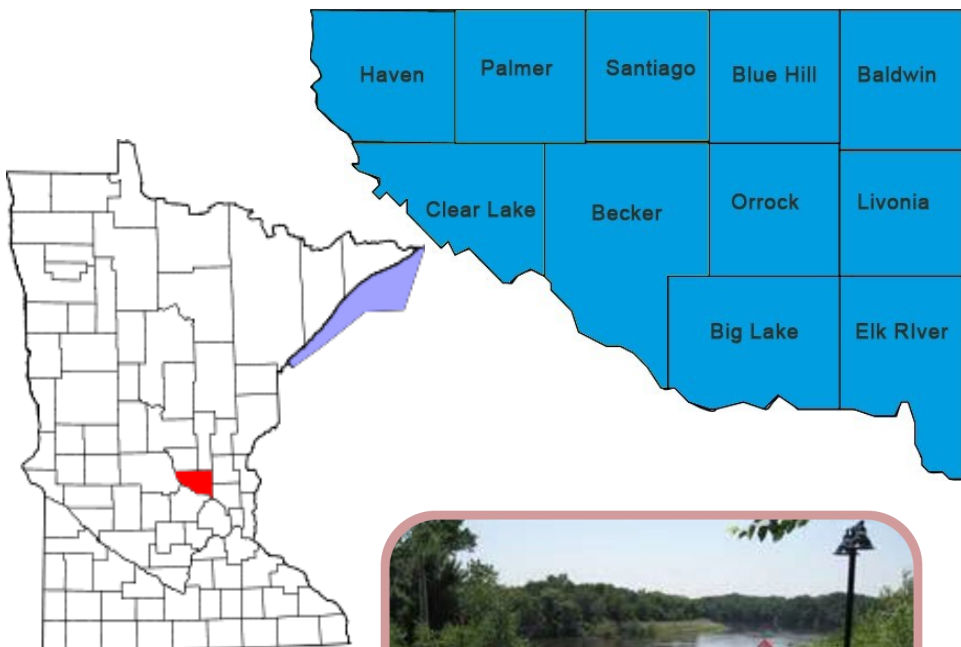
Blue Thumb

Speco Charter Bus Company



For more information on the SWCD visit our website at www.sherburneswcd.org

Sherburne County Information



Total Land Area:

451 Square Miles

Total Water Area:

11,520 Acres

Lakes:

127

Rivers and Tributaries:

493 Miles

Population:

91,126 *U.S. 2010 Census

Native Vegetation:

Oak Savanna
Wet Soils/Water
Conifer Forests

Cities:

Becker
Big Lake
Clear Lake
Elk River (county seat)
Princeton
(partly in Mille Lacs County)
St. Cloud
(partly in Stearns County)
Zimmerman

Townships:

Baldwin Township
Becker Township
Big Lake Township
Blue Hill Township
Clear Lake Township
Haven Township
Livonia Township
Orrock Township
Palmer Township
Santiago Township



Stormwater Management Birch Lake



Project Details

- Funded by \$70,000 Clean Water Legacy Grant
- Identified as "High Priority" location
- 4 BMP's installed in fall 2016
- Phosphorus reduction of 7.5 lbs per year
- Sediment reduction of 3,000 lbs per year

Birch Lake Stormwater Control

In 2014, the Sherburne SWCD Conservation Tour stopped at Birch Lake to discuss the Sub-Watershed Analysis study, which pinpointed and prioritized areas of pollution entering Birch Lake. At that time, several areas had been identified and funds were being pursued to complete the work. Bringing this project full circle, we are stopping at Birch Lake again in 2017 to show off the end result of years of hard work! The Birch Lake improvements consist of two gravel infiltration beds, a slotted drain with sump basin, and an improved ditch with water retention berms. These devices, along 224th Avenue and 159th Street at the public landing, work to slow down, retain, and filter stormwater so that pollutants such as nutrients, sediment, road salts, heavy metals and others do not make their way into Birch Lake. The project involved a partnership consisting of the Sherburne SWCD, Township of Big Lake, and township engineers from Oliver Surveying & Engineering. Funding was provided by a grant secured through the State of Minnesota's Clean Water, Land & Legacy Amendment.



Native Prairie Planting Becker, MN



Project Details

- **Established:** 2012
- **Acres:** 5
- **Prairie Type:** Native Short Dry Prairie
- **Number of Species:** 39
- **Species:**
Little Blue Stem, Side Oats Grama,
Purple Prairie Clover,
Gray Goldenrod, Black Eyed Susan,
Large Flowered Beard Tongue

Native prairie is a diverse plant community that provide multiple benefits for wildlife, soil health, water quality and air quality. Sherburne County is in the Anoka Sandplain Region and characterized by the type of soil that prairie thrives in. Establishing native prairie on land that would otherwise be maintained as turf is a tremendous service for our natural resources.

The top eco-services provided by prairie include:

- Habitat for declining pollinator populations
- Habitat for song birds, upland game birds and mammals
- Carbon sequestration and reduction of greenhouse gases
- Improving soil health
- Protection of surface water quality

In 2000, the SWCD created a program to provide assist for establishing and managing native prairie.

Our program provides:

- Cost share assistance
- Technical guidance
- Planting services
- Management consultations



USDA-Natural Resources Conservation Service (NRCS) Programs

2017 NRCS Program Highlights in Sherburne County

- In Fiscal year 2017 obligated **\$282,931** of federal funds in Sherburne County through the EQIP program.
- **1,109 acres** will have conservation practices applied in 2017/2018. Practices are: pollinator plantings, cover crops, Ag waste system, grazing practices, energy audit and forage plantings.
- NRCS partnered with Sherburne Soil and Water Conservation District to plant cover crop demonstration plots in Sherburne County. A field day will be held on September 20th, 2017 to promote and educate the agricultural community and professionals about the importance Soil Health and the environmental benefits of it
- Through the CSP program obligated \$65,062 in FY 2017 on 622 acres. Participants will implement conservation practices and CSP enhancements on their land to enhance natural resources and improve their operation.



Multiple species cover crop



Pollinator Planting



Construction of Ag Waste Project

USDA-Natural Resources Conservation Service (NRCS) Programs



2014 NRCS Farm Bill Conservation Programs

The 2014 Farm Bill was enacted on February 7, 2014. NRCS offers voluntary Farm Bill conservation programs that benefit both agricultural producers and the environment.

Conservation programs under the 2014 Farm Bill are:

Financial Assistance:

- Agricultural Management Assistance Program (AMA)
- Environmental Quality Incentives Program (EQIP)
- Conservation Stewardship Program (CSP)

Easements:

- Agricultural Conservation Easement Programs (ACEP)
- Healthy Forest Reserve Program (HFRP)

Partnership:

- Regional Conservation Partnership Program (RCPP)

Other Programs:

- Agricultural Conservation Experienced Services (ACES)
- Conservation Innovation Grants (CIG)
- Emergency Watershed Rehabilitation Program
- Small Watershed Rehabilitation Program
- Technical Service Providers (TSP)
- Voluntary Public Access and Habitat Incentive Program



Environmental Quality Incentive Program (EQIP)

provides financial and technical assistance to agricultural producers in order to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation or improved or created wildlife habitat.



Conservation Stewardship Program (CSP)

helps agricultural producers maintain and improve their existing conservation systems and adopt additional conservation activities to address priority resources concerns. Participants earn CS payments for conservation performance the higher the performance, the higher the payment.

Soil Health Presentation Big Lake, MN



Cover Crop Details

Established: Spring 2017

- Season long cover crop planted in irrigation corners
- Planted for soil health, pollinator, and wind erosion benefits
- Soil health demonstrations comparing cover types

Cover crops are planted primarily to manage soil erosion in Sherburne county however there are many more benefits including soil health and pollinator resources. Cover types typically include grasses, legumes, and brassicas established for seasonal cover and conservation purposes. Farmers choose to grow and manage specific cover crop types based on their needs and goals. This mix was planted to provide habitat for pollinators and to protect and build the soil. The crimson clover flowers in this mix produce abundant nectar and pollen that attract European honey bees, as well as a wide variety of native bees.



We will conduct three demonstrations showing the importance of soil health: the slake test, kool-aid test and table-top rainfall simulator.



Tree Pruning Demonstration Big Lake Metro Transit



Ecosystem services of urban trees In Big Lake:

Energy Saving: \$68,000
Co² Reduction: \$4,500
Improved Air Quality: \$11,000
Stormwater Mitigation: \$75,000
Aesthetic / Property Value: \$68,000

Total: 226,500

The SWCD has been coordinating the volunteer pruning program for the cities of Becker, Big Lake, Elk River and Princeton since 2014. In 2016 the program was expanded to include Zimmerman. Volunteers are trained in small tree structural pruning, and during events scheduled throughout the year help maintain trees on publicly-owned property. A healthy urban forest plays a vital role to the health of all cities. Trees improve air and water quality, lower air temperatures, reduce energy demand, and beautify the streets. Citizen Pruners provide a tremendous benefit to our urban environment.

2017 Citizen Pruner Stats

Location	# Trees	Total Hours
ER King Ave Parking Lot	26	6.5
ER Chamber of Commerce	5	3
Princeton Rainbow Park	20	6
BL Lakeside Park	6	3
Big Lake Metro Transit	28	9
ER Maint. Facility	43	16
ER Library	8	4
ER Senior Activity Center	14	8
Orono Parkway	13	6
ER Main Street	14	4
WB Liquor	27	17
NB Liquor	10	6
ER Commons	22	8
13 locations	236	96.5



SWCD Volunteers

Volunteers are an important part of our conservation programming at Sherburne Soil and Water Conservation District. Some of the events and programs they are utilized in are; rain gauge reading, Elk River clean up, citizen pruner, tree survey, and zebra mussel monitoring.

The SWCD would like to thank all of our volunteers, for their countless hours of hard work, enthusiasm and dedication.



2016 Accomplishments at a Glance

Education and Outreach

- Education Events Attended: **19**
- Education Events Hosted: **8**

Forestry

- Trees Sold: 19,475
- Forest Stewardship Plans: **4**
- Acres of Invasive Species Removed: **17**

Storm Water Mitigation

- Total Square Feet: **14,288**
- Phosphorus Reduction: **8.2lbs/year**
- Suspended Solids Reduction: **72 tons/year**

Water Quality

- Sites Monitored for Bacteria: **2**
- Streams Monitored for Flow Measurement: **4**
- Streams Monitored for Phosphorus: **3**

Wetland Conservation Act (WCA)

- Wetland Delineations: **15**



2017 Conservation Cooperators

Each year Soil and Water Conservation Districts across the state select an Outstanding Conservation Cooperator as a way of recognizing their contributions to protection, preserving and restoring our natural resources. For 2017, the Sherburne SWCD has chosen to recognize the conservation efforts of Patrick Plant and Cindy Edwards-Plant.

For over 30 years, Patrick and Cindy have been dedicated stewards to Lake Orono. Each has their own individual talents, Patrick with strategy development and Cindi with marketing and design. Together, they are involved in numerous water quality and invasive species programs. Additionally, they completed a self-funded shoreline restoration project to serve as a demonstration model for other property owners. The Plant's have facilitated multiple projects to study Lake Orono and plan for its future. Their leadership has resulted in a lake management plan that calls for specific action items and has strong support and backing from the community as well as City of Elk River officials. In 2016, they went above and beyond by helping to establish the Sherburne County Coalition of Lake Associations. Both serve as a Lake Orono delegate and Patrick was nominated to the position of Chair. The Sherburne County COLA will be a county-wide networking group that aims to improve the waters of all Sherburne County lakes.

Through these efforts, Patrick and Cindi have shown their dedication not only to quality lake management, but to aligning planning and management on a watershed scale.

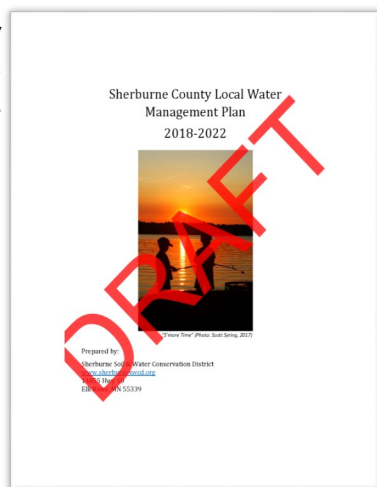


Local Water Management Plan

Sherburne SWCD is leading the update of the County Water Plan

Each county in Minnesota is charged with developing a plan to identify and address water priorities through creation of a Local Water Management Plan (LWM). Currently, Sherburne County is in the process of updating its plan, which was last updated in 2007 and lasts for a 10 year period. Sherburne SWCD has been delegated the responsible party for facilitating this work. The plan update begins with a thorough stakeholder engagement process, through which the priority concerns for the county are defined. The priority concerns for Sherburne County are as follows:

1. **Surface water quality (rural & storm-water runoff, lake & stream quality, wetlands)**
2. **Groundwater quality & quantity (drinking water, water tables, groundwater use)**
3. **Aquatic invasive species (prevention and control)**



A properly constructed plan will outline the status of water resources in the county, and set forth a plan of action to address impairments and protect non-impaired waters. While the plan is drafted by Sherburne SWCD staff, creation of the plan is overseen by a Local Water Plan Advisory Committee. Implementation Plan items are created through assistance with Sherburne County staff, city and township officials, and residents of the county. The plan and its implementation is also approved by the Sherburne County Board of Commissioners and state agencies such as the DNR, MPCA, BWSR, MDA, and MDH.

It is anticipated that the new Sherburne County LWM will be completed in February or March of 2018.

Sherburne SWCD Staff



Back Row

Bill Bronder
District Technician

Gina Hugo
Forest Resource Specialist

Andie Bumgarner
Marketing/Admin Assistant

Dan Cibulka
Water Resource Specialist

Front Row

Franny Gerde
District Technician

Francine Larson
District Manager

Miranda Wagner
District Technician

NRCS Staff



Yara Gonzalez
NRCS Soil Conservationist

NRCS provides farmers and ranchers with financial and technical assistance to voluntarily put conservation on the ground not only helping the environment but agricultural operations, too.

Sherburne SWCD Supervisors



Larry Goenner
Treasurer
District III



Jason Selvog
Chair
District IV



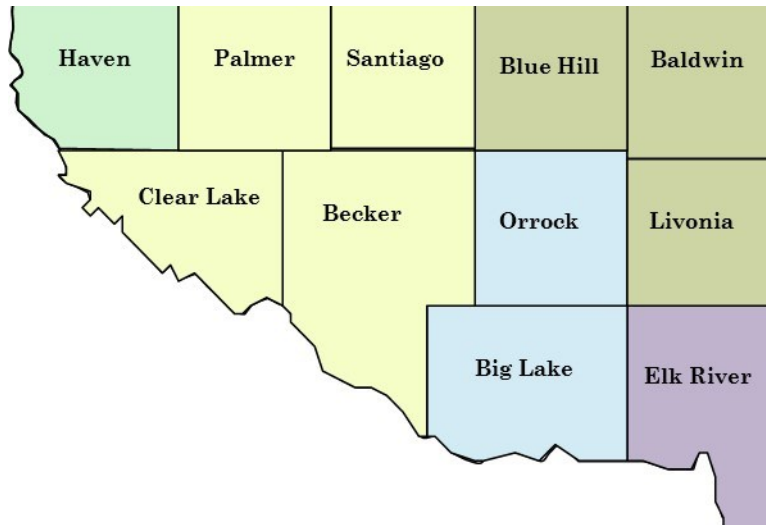
Roger Nelson
Reporter
District V



Michael Schroeder
Vice Chair
District I



Shane Berg
Secretary
District II



Sherburne SWCD Activities

Conservation

- Prairie Planting
- Invasive Species Control
- Tree Planting
- Shoreland Buffers
- Stormwater Treatment
- Forest Protection Services



Education

- Pollinator Day
- Cub Scouts Planting
- Environmental Education Days
- County Fair Booth
- Envirothon
- Shoreland Buffer Maintenance
- Wildlife Festival, Baldwin
- Legislative Day



Special Projects

- TMDL/WRAPP
- Annual Elk River Cleanup
- Elk River Watershed
- Soil Quality Testing
- Biomass at Bridgeview
- Plant Materials Evaluation Site
- Free Nitrate Testing Clinic



Financial Summary

The Sherburne Soil & Water Conservation District finances its day-to-day operations through a variety of revenue sources.

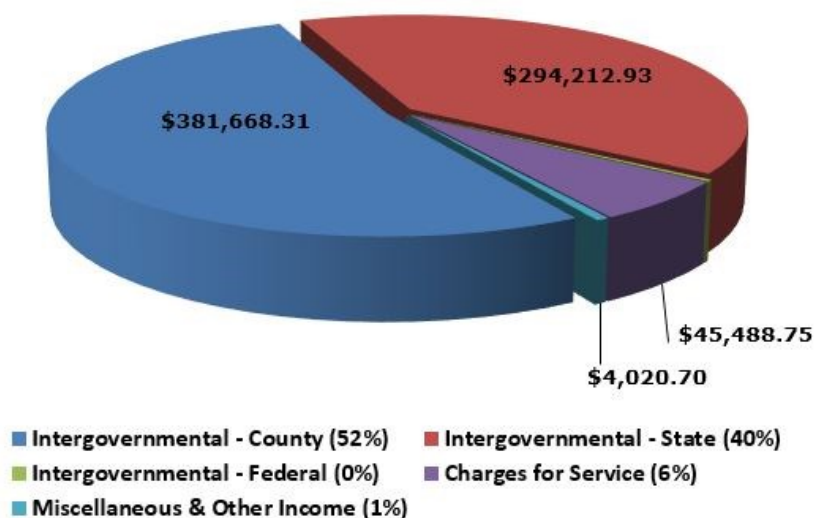
These sources include County Allocation (52%), State Grants (40%), charges for Services (6%), and other Miscellaneous Income (1%). Although governed by an elected board of officials, Conservation Districts do not have levy authority and must secure funds from many sources to maintain programs and services.

Note: Intergovernmental – County includes state pass-through revenues.

Since the passage of the Clean Water, Land, Legacy Amendment in 2008, the SWCD has been the recipient of several Clean Water Funds administered by the Board of Soil and Water Resources (BWSR).

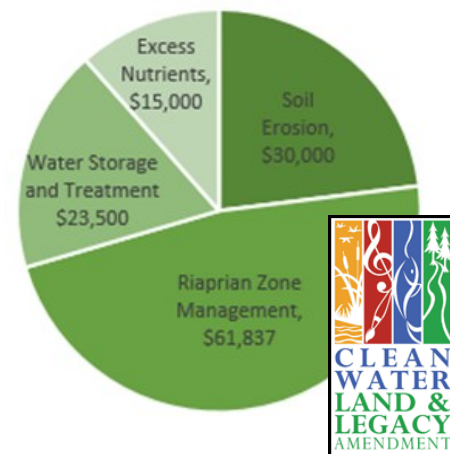


Sherburne SWCD - Revenue Summary
Total Revenue in 2016 was \$727,390.69



Financial Summary

Thanks to increased capacity funding, the Sherburne Soil and Water Conservation District is engaging more and more landowners in conservation work, using incentives to increase interest and generate more program sign-ups.



Getting more conservation on the ground in the county's priority areas has increased awareness of the SWCD's work and strengthened their partnerships with other local government units, landowners and lake associations.

Locally-driven conservation is a cost-effective way to protect Minnesota's natural resources. Targeting these practices to where they're needed most, and getting more practices implemented thanks to funding like this, empowers and motivates the community. That wouldn't be possible without this additional support.

LOCAL IMPLEMENTATION ACTIVITIES	WATER QUALITY CONCERNS			
	Soil Erosion	Riparian Zone Mgmt	Water Storage & Treatment	Excess Nutrients
Education/Information	✓	✓	✓	✓
Forestry Practices			✓	
Streambank or Shoreline Protection		✓		
Water Quality Practices	✓			✓
Equipment	✓	✓	✓	