



2016 Annual Report

2017 Annual Plan of Work

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<http://www.co.carver.mn.us/swcd>

I. INTRODUCTION

The mission of the Carver Soil and Water Conservation District (SWCD) is to provide high quality assistance to the land managers and citizens of Carver County for the protection of land and water resources.

The Carver SWCD was organized by local farmers for the purpose of promoting the science of good land use; and to assist landowners and operators in planning and applying soil and water conservation practices needed to protect and improve their land and water resources. The District is a legal subdivision of the State of Minnesota, operating under a charter issued by the Secretary of State on November 12, 1946. The soil and water conservation policy of the State is to encourage land occupiers to conserve soil, water, and the natural resources they support through the implementation of practices that:

- (1) Control or prevent erosion, sedimentation, siltation, and related pollution in order to preserve natural resources;
- (2) Ensure continued soil productivity;
- (3) Protect water quality;
- (4) Prevent impairment of dams and reservoirs;
- (5) Reduce damages caused by floods;
- (6) Preserve wildlife;
- (7) Protect the tax base; and
- (8) Protect public lands and waters.

Since 1946, the Carver SWCD has been providing technical and financial assistance to landowners, land operators, municipalities, townships, counties and businesses for the improvement of their natural resources. The continued success of the Carver SWCD is a result of listening to our constituents, adjusting or expanding our technical capabilities, and providing leadership in emerging land use and conservation issues.

The purpose of this annual report and annual plan is to summarize the major accomplishments of last year and to identify needs for the upcoming year. It should be noted that not every activity can be captured by this report, but the reader should get an overall idea of the District's activities.

CARVER SWCD BOARD OF SUPERVISORS

The SWCD is governed by a five member Board of Supervisors and they are charged with developing policies and employing staff to fulfill the mission of the SWCD. A legislative change in 2014 required the Supervisors to be elected by equal population districts starting in 2016. All five Supervisor positions were up for election in 2016, and there will be staggered terms. The Board meets the third Thursday of each month at 8:30 a.m. in the Cologne Public Works Headquarters (unless otherwise scheduled).

ELECTION YEARS:

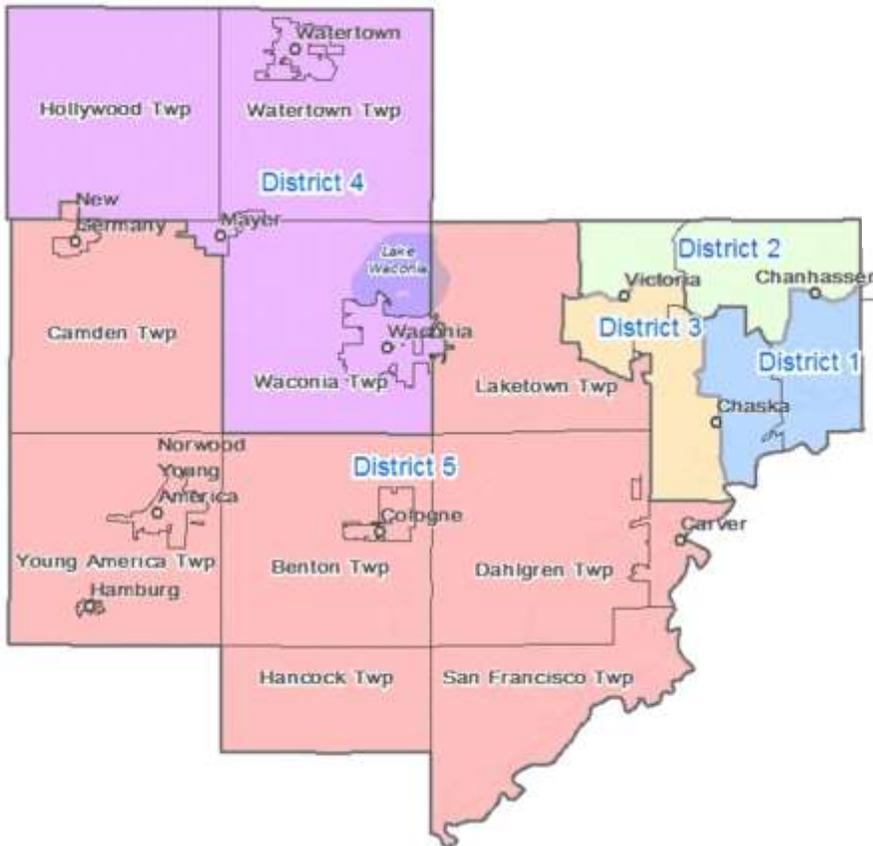
District 1: 2016 – 2018 – 2022

District 2: 2016 – 2020 – 2024

District 3: 2016 – 2018 – 2022

District 4: 2016 – 2020 – 2024

District 5: 2016 – 2018 – 2022



Current Board Members

- District 1 – Stan Wendland
- District 2 – Marcus Zbinden
- District 3 – Mark Zabel
- District 4 – Bob Burandt
- District 5 – Jeff Sons

CARVER SWCD STAFF

						
Mike Wanous <i>District Manager</i>	Felicia Brockoff <i>Administrative Assistant</i>	Ben Datres <i>Farm Bill Technician</i>	Aaron Finke <i>District Technician</i>	Chip Hentges <i>Conservation Technician</i>	Terry Meiller <i>District Technician</i>	Seth Ristow <i>Resource Conservation Technician</i>

Local Partner Agencies

Carver County Water Management Organization (WMO)
Carver County
Riley Purgatory Bluff Creek Watershed District (RPBCWD)
Minnehaha Creek Watershed District (MCWD)
Lower Minnesota River Watershed District (LMRWD)
U.S. Fish & Wildlife Service (USFWS)
Natural Resources Conservation Service (NRCS)
Board of Water & Soil Resources (BWSR)
Department of Natural Resources (DNR)
Pheasants Forever (PF)
Hamburg Hunt & Fish Club
Townships of Carver County
Cities of Carver County

II. Annual Objectives and Actions

Agriculture Conservation Practices

The goal of this program is to work with private landowners to minimize negative impacts of agriculture activities on natural resources. There are a number of state and federal programs aimed at providing grant and loan money to assist landowners with installing practices that protect and enhance water quality. It is also important to provide landowners with technical assistance that will enable them to build soil quality for future generations.

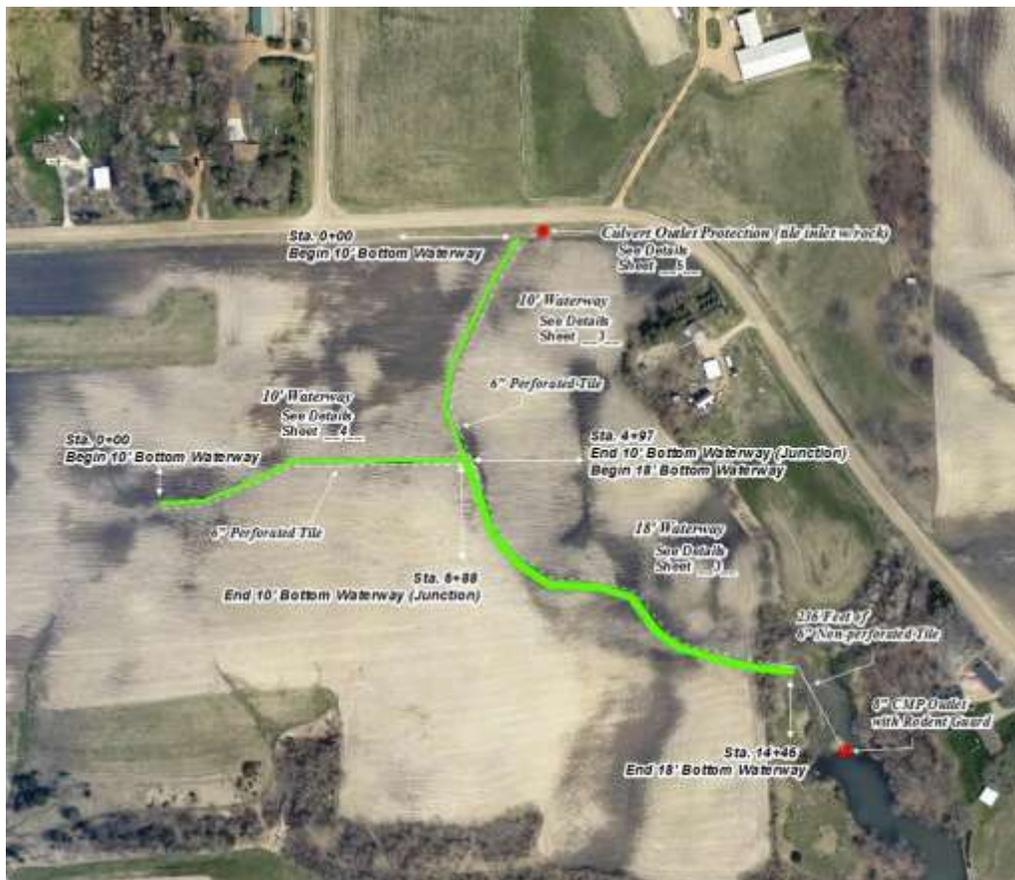
The SWCD has provided technical assistance and cost share assistance for traditional Ag BMP's for nearly 70 years. Examples of these practices include, but are not limited to: grass waterways, water and sediment control basins, residue management, grade stabilization structures, contour strips, nutrient management, critical area planting, rock inlets, buffer strips, tree and shrub establishment. The SWCD will continue to promote the use of BMP's on a county wide basis. Special focus will take place in the sub-watershed's that have been identified as priorities from Total Maximum Daily Load (TMDL) studies, as well as those identified in the Carver County Water Management Plan.

A new buffer initiative was signed into law in the summer of 2015. The buffer law will require 50 foot buffers of perennial vegetation on all public waters by November 1, 2017; and 16.5 foot buffers on all public ditch systems by November 1, 2018. The MN DNR developed buffer protection maps based on previous public water inventory maps and legally established public ditch locations. SWCD staff have been contacting landowners that are impacted by this new buffer law.

In the same statute that describes the buffer requirement (103F.48), a lesser known law change will require the SWCD to follow-up on excessive soil loss complaints. The law previously required follow-up only if the County had a soil loss ordinance in place, now the local soil loss ordinance is not required. The SWCD anticipates spending time on this statutory requirement during the next few years.

Accomplishments for 2016

- Installation of 11 grassed waterways, totaling 4,988 feet.
- Sold 5,200 trees to 96 landowners.
- Processed 1 RIM floodplain application (not accepted for funding)
- Truax drill rental to 7 landowners on 136 acres.
- Harvestable buffer payments to 13 landowners.
- Designed and inspected the installation of 1 side inlet control structure.
- Designed and inspected the installation of 1 grade stabilization structure.
- Completed survey work, design, and construction inspection of projects for the Disaster Relief Assistance Program (disaster relief from June 2014 storm events).
- Wrote prescribed burn plans for 9 landowners participating in an easement program, totaling 298 acres.
- Soil Health/Cover Crops – staff attended several workshops and trainings to learn more about soil health. A new policy has been developed to provide incentives and cost-share for landowners interested in getting involved with soil health/cover crops.
- Staff provided technical assistance on several other sites (technical assistance might include survey work, hydrology calculations, concept designs), not all sites result in project implementation.



Grassed waterway design on a property in Laketown Township

Actions for 2017

1. Implement projects with state aid funding sources of DRAP, State Cost-Share, District Capacity.
2. Initiate a soil health/cover crop program utilizing district capacity funds.
3. Prioritize locations for BMP's by completing the Lake Waconia sub watershed analysis (SWA) and by partnering with the WMO on the PTM App being developed by HEI for Bevens, Silver, and Carver Creeks.
4. Work cooperatively with the USDA NRCS and FSA to promote and implement the Federal USDA programs such as EQIP, CRP, and CREP.

5. Assist the County Feedlot officer with feedlot technical assistance and compliance.
6. Work cooperatively with the Carver County WMO to encourage compliance with County and WMO rules and regulations.
7. Implement the buffer law and excessive soil loss provisions of 103F.48
 - a. Use the state BuffCAT tool to identify parcel compliance
 - b. Send letters with maps to landowners that need to take action in order to be in compliance
 - c. Hold a public meeting(s) to inform landowners about the details of the new law
8. Secure funding to complete priority projects identified in the Carver County Water Plan by applying for grants and special funding programs.

Approximately 3,200 staff hours are needed for this program.

This work is to be completed by the District Technicians, and the Farm Bill Technician

Urban Conservation

The Carver SWCD assists in the implementation of conservation programs and water rules compliance that have been adopted by the Carver County Water Management Organization (WMO). Staff assists with the development plan reviews of proposed projects to determine compliance with National Pollution Discharge Elimination Systems (NPDES) and local water rules. Staff also reviews the implementation of the water plan by performing site inspections on construction activities, and providing technical assistance with the installation of urban BMP's. In Carver County, SWCD staff work extensively with WMO staff to ensure that projects are installed according to plan and in compliance with all applicable water management rules. Topsoil requirements was a hot topic in 2016, and the revised water rules now does a better job of describing exactly what is needed for applicants to meet the topsoil requirements. The SWCD also has an agreement with the City of Chanhassen to review plans, conduct erosion and sediment control inspections and providing technical assistance on water quality features. In addition, the SWCD has contracts with Riley Purgatory Bluff Creek Watershed District (RPBCWD) and with the Lower Minnesota River Watershed District (LMRWD) to assist landowners with identifying BMP locations and providing design assistance.

Essential duties of this program include the following:

- Assists the Carver County WMO with plan reviews.
- Conduct field visits to construction sites to inspect for compliance with stormwater regulations.
- Supports WMO staff and City staff with development of watershed models, site investigations, survey work, and technical expertise.
- Assists and/or prepares landscape restoration designs to treat stormwater, included but not limited to: rain gardens, bio-retention cells, shoreline restorations, and water re-use projects.
- Provide technical assistance and BMP designs for RPBCWD and LMRWD.

Accomplishments for 2016

The following list tracks projects by cities and inspection requirements:

City of Carver

- Copper Hills 2nd Addition – ES inspections and topsoil compliance
- Carver Crossing – ES inspections
- Carver Dental – Plan Review and ES inspections
- Carver Elementary School – Plan Review and ES inspections

City of Chanhassen

- Camden Ridge – Topsoil compliance, ES and bio-filtration inspection

- Preserve at Rice Lake – ES inspection, compliance and WCA enforcement
- Vista at Bentz Farms – ES inspection and bio-filtration inspection
- Business Impact Group – ES inspection and Bio-filtration inspection
- Chanhassen West Business Park Lot 2 – ES inspection
- Beehive 2nd – ES inspection
- Children’s Learning Adventure – ES inspections and Bio-filtration installation inspection
- Dakota Retail – ES inspection
- Glaccum Highlands – ES inspection
- Lamettry’s Chanhassen – ES inspection and violation enforcement
- Moon Valley – ES inspection, MPCA violation and WCA violations

City of Chaska

- Red Cedar Creek – ES and topsoil compliance, Bio-Filtration and water re-use installation
- Harvest States Phase 2– ES inspection
- Founders Ridge – ES and topsoil compliance, and water re-use installation
- Chevalle 17th – Bio-filtration, ES and topsoil inspection
- Fireman’s Park – Bio-filtration, water re-use
- Crown of Glory Church – ES inspection, Bio Filtration installation
- Seminary Fen Ravine – ES inspection
- Chaska Heights Senior Living – ES inspection topsoil compliance
- Pioneer Hollow – ES inspection
- Red Cedar Creek 3rd – Plan Review and ES inspection
- 82nd Street Improvement – ES inspections
- Chaska Dome – Plan review
- Cofferdam Data Center – Plan review

City of Cologne

- Water Treatment Facility – ES inspection
- Village at Cologne North – Plan review and ES inspection

City of Mayer

- Mayer Lutheran School – Plan review and ES inspection and Bio-Retention Installation
- Wetland Restoration Banking project – Plan review
- Coldwater Crossing 7th addition
- 633 Shimmcor – ES inspection
- Hidden Creek 6th Addition – ES inspection
- Hidden Creek 7th Addition – Plan review

City of New Germany

- In-board Marine – Plan review and wetland compliance

City of Norwood Young America

- Haven at Peace Villa – Bio-filtration installation
- Waconia Manufacturing Expansion – ES inspection
- Vickerman West Addition – Plan review, ES inspection and Bio-filtration installation

City of Waconia

- Auburn Meadows – Issues with bio-filtration pond/re-construct
- Crosswinds – ES, Topsoil and water re-use inspections – Bio-filtration installation

- Store It in Waconia – ES Inspection
- Nordic Corp – ES and topsoil compliance
- Oakwood Community Church – ES, Topsoil and Bio-Filtration compliance
- Interlaken Woods – ES, Topsoil and Bio-filtration compliance.
- TH5 Improvements – water re-use installation
- Waconia City Improvement – ES, Topsoil, bio-filtration and impervious pavers inspection
- Waconia High School – ES Inspection
- Waconia Elementary School – ES Inspection
- Stonegate Interlaken 4th – ES inspection
- Fireside Office Townhomes – ES inspection, and bio-filtration system
- Windmill Creek 7th – Plan review
- Waconia Grandstands – Plan review and ES inspection
- Waconia Retail Development – initial review
- CSAH 10 Realignment – Plan review

City of Watertown

- Tuscany Village Re-plat – Plan review and ES inspections
- Pease Lutheran Expansion – ES inspection, and Bio-filtration installation

Carver County

- Hanson Gravel Pit – Plan review and site inspections
- Great River Energy Substation Expansion – Plan review, ES inspection and Bio-filtration installation
- Tiger Lake Wetland Restoration – US Fish and Wildlife Service doing work
- Bridge 10J37 JD1 Replacement – Plan review and ES inspections
- Neaton Property – Plan review and ES inspection
- Lind Solar Site – ES inspection
- Bongard Community Solar – ES inspection
- Lake Waconia Community Solar – Plan review
- Hollywood PW Buildings – Plan review and ES inspection
- CR 123 Flood Mitigation – Plan review and ES inspection
- Magnolia Landscaping Addition – plan review and ES inspection



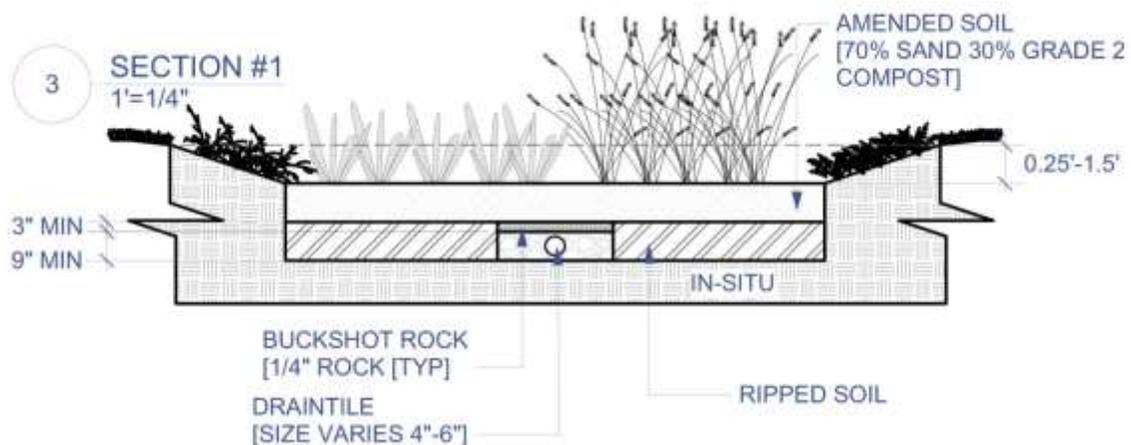
Installation of a bio-filtration bench on a new storm-water pond

Riley Purgatory Bluff Creek WD Cost-Share

- Assisted Clean Water Steward students with projects
- Spoke to Lake Association about Best Management Practices around their lake
- Installed 7 Cost Share Projects
- Conducted 20 site visits
- Designed 11 projects
- Updated Cost Share Program

WMO Cost Share

- Conducted 15 site visits
- Designed 8 projects
- Installed 2 projects (Residential and School)
- Maintained past projects



Typical raingarden cross section, a common BMP. Under drain is needed in heavy clay soils.

Actions for 2017

1. Conduct 150 construction site erosion control inspections.
2. Provide BMP design services for the WMO, RPBCWD, and LMRWD.
3. Participate in educational efforts to raise awareness of the impacts of storm water and CSEC on water quality.
4. Provide technical assistance to LGU's and contractors for the best use of storm water BMP's.
5. Assist the WMO and other LGU's with the implementation of rain gardens, bio-retention, shoreline restorations, and other forms of low impact development practices.
6. Identify the best locations for BMP's by conducting sub-watershed analysis.
7. Follow through with the installation of projects identified in the sub-watershed analysis.
8. Increase technical capacity with current modeling and the latest water quality treatment devices.

Approximately 2,800 hours are needed for this task.

This work is to be completed by the Resource Conservation Technician and the Conservation Technician.

Wetland Protection and Restoration

The SWCD provides technical assistance for the Minnesota Wetland Conservation Act (WCA). Wetlands serve multiple functions and are an important part of the Carver County landscape. The Carver WMO is the LGU for WCA implementation in the unincorporated areas, but the SWCD provides technical assistance and field reviews. Each city is responsible for WCA administration within the city limits. By statute requirements, the SWCD is a member of the technical evaluation panel (TEP) and the SWCD writes restoration orders when required. The SWCD also assists landowners that wish to explore options for restoring wetlands on their property. This could be done through a conservation program, private wetland banking, or with landowner contribution without entering into a program. Minnesota recently signed an agreement with USDA for up to \$350 million to fund a Conservation Reserve Enhancement Program (CREP), which would combine CRP with RIM to permanently restore wetlands and other marginal crop ground.

Accomplishments for 2016

- Restoration of a previously closed RIM-WRP easements on 32 acres
- Provided technical assistance to landowners with WCA related questions
- Attended 38 TEP meetings
- Continued work on RIM/WRP floodplain projects that closed in prior years, 2016 was too wet to complete the construction work, but landowner assistance was provided
- Worked with a landowner with a RIM easement design that will restore 14 small wetland basins
- Completed the concept plan work for a 70 acre wetland banking site in the City of Watertown in cooperation with Carver County
- Reviewed 11 potential WCA violations
- Restorations completed on 7 wetland violations, 4 additional restorations are pending



A group tours one of the larger wetland restorations near Lake Waconia.

Actions for 2017

1. Provide assistance to Carver County for WCA, and stay updated with changes to the MN WCA laws.
2. Continue to be part of the TEP's for WCA projects, write restoration orders when needed.
3. Make significant progress in the Watertown wetland banking project, restoration efforts are planned for summer/fall of 2017.

4. Understand and promote the wetland restorations programs available through State and Federal programs including RIM, private and public banking, CRP, CREP, and USFWS programs.
5. Assist the USDA with the wetlands provisions within the Farm Bill Program, including Swamp-buster and 1026 drainage requests.
6. Seek to prevent wetland losses by educating landowners of the State and Federal wetland protection laws.
7. Continue aerial review and inventory of wetland violations from 1991 to present.

Approximately 2,000 hours are needed for this task.

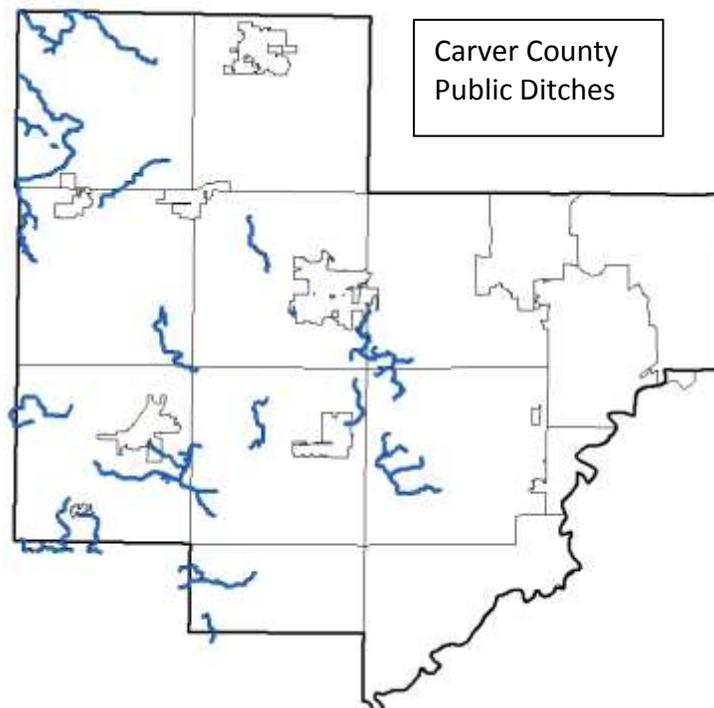
This work is to be completed by the District Technician and the Farm Bill Technician.

Drainage and Ditches

The Carver SWCD has an agreement with the Carver County Ditch Authority to assist the County Auditor in cleanout requests and management of the County ditch systems. There are 15 public ditch systems in Carver County, the SWCD provides ditch inspections and technical assistance for maintenance of these ditch systems. The SWCD is also a point of contact for other drainage related questions. We work with many landowners on drainage related questions that range from flooded crop fields to wet backyards, and often involve neighboring properties and legal drainage problems. While the SWCD does not provide legal advice, we often can direct people in the right direction to help them get there problem resolved.

Accomplishments for 2016

- Completed ditch inspections of 5 public drainage ditches
- Assisted with repair procedures on 4 ditch systems
- Worked with Joint Ditch 3 and County Ditch 4 on buffer strip requirements
- Completed annual buffer strip reporting
- Assisted landowners with questions about redetermination of benefits and the new buffer law
- Worked with Townships and private citizens on drainage questions and complaints



Actions for 2017

1. Respond to requests for repairs of public drainage systems
2. Assist Carver County and landowners with the processes of MN Drainage Law 103E
3. Promote the installation and maintenance of grass buffer strips and rock inlets to keep sediment out of the ditch systems
4. Begin to implement a state grant to install BMP's in the watershed of County Ditch #6
5. Educate landowners about BMP's
6. Explore opportunities to include water quality projects with drainage repairs
7. Continue to work with the County Auditor and Ditch Authority on improving the processes related to the Carver County Public Ditch Program

Approximately 800 hours are needed for this task.

This work is to be completed by the District Manager and the District Technician.

Education and Outreach

The Carver SWCD had been the host agency for the Metro Area Envirothon for the past 20 years. In 2016 however, it was decided not to hold a Metro Area Envirothon due to a lack of funding for the program. Six metro area teams were allowed to participate at the Area 2 Envirothon, which allowed the Metro Area to be represented at the Minnesota State Envirothon, held at Lake Bronson State Park near the Canadian border in northeast Minnesota. Carver SWCD Administrative staff also assists with the coordination of the Minnesota State Envirothon.

The District also sent out a fall newsletter and other press releases as needed throughout the year, gives classroom presentations as requested, and updates and maintaining the website.

Accomplishments for 2016

- Assisted at the West Central Area 2 Envirothon.
- Presented to 100 students that are part of local conservation clubs or 4-H groups.
- Developed and sent a fall newsletter ("The Dirt") to almost 3,000 citizens.
- Assisted Carver County Extension with presentations to landowners as requested.



Hopkins High School & Junior High Teams



Teams participating at the Soils Station

Actions for 2017

1. Coordinate a Metro Area Envirothon with funding from the District Capacity Grant.
2. Assist with State Envirothon Coordination.

3. Continue to provide education efforts in the classroom, conservation clubs and 4-H events.
4. Maintain the District website to keep citizens informed of programs and activities of the District.
5. Develop and distribute District Newsletters.
6. Assist the Environmental Coordinator with education and outreach activities, including hosting the Metro Area Children's Water Festival through the Metro Joint Powers Board.
7. Provide education to citizens of Carver County as they relate to the SWCD programs.
8. Assist Carver County with the educational components of the County Water Plan.
9. Promote the new soil health program through the Carver SWCD, by providing educational opportunities including meetings and field day demonstrations.

Approximately 800 hours are needed for this task.

This work will be completed by the Administrative Assistant with assistance from other staff as needed.

Financial Stability

The Carver SWCD does not have taxing authority and relies on cooperation with other agencies to balance its budget of expenditures and revenues. The SWCD provides many services to Carver County and many of the departments within the County. In particular, many of the projects completed by the Water Management Organization are done in cooperation with the SWCD.

Accomplishments for 2016

- Worked with the County Divisions to prepare a conservative 2017 budget request.
- Successfully implemented several projects with the Carver WMO.
- Continued our partnership with the Riley Purgatory Bluff Creek Watershed District to provide BMP design services.
- Entered into a new agreement with Lower MN River Watershed District to provide BMP design services within their jurisdiction.
- Continue our partnership with the City of Chanhassen to provide construction site erosion control inspections.
- Took the lead working with the DNR and became the main point of contact with the public in regards to the new buffer law.
- Leveraged State funding through the Farm Bill Assistance grant, RIM easement incentives, and special contracts and grant agreements with BWSR.
- Developed a work plan for the District Capacity Funding received from the state.

Actions for 2017

1. Continue to be fiscally responsible while still providing high quality service to Carver County citizens.
2. Work with Carver County to ensure the County General Levy adequately supports conservation efforts and addresses Citizen's needs.
3. Continue to work closely with the Carver WMO to implement the County Water Plan and County Water Rules, assist with grant implementation.
4. Seek grant opportunities that fit into the Districts short term and long term goals.
5. Implement and track state requirements of MN water law.
6. Develop relationships with the WMO, LGU's and Watershed Districts and seek opportunities to partner on programs.

Approximately 800 hours are needed for this task.

This work will be completed by the District Manager and the Administrative Assistant.

STAFFING NEEDS

In order for the SWCD to accomplish the above objectives, the following staffing needs are required:

- 1 FTE District Manager
- 1 FTE Administrative Assistant
- 1 FTE Conservation Technician
- 2 FTE District Technicians
- 1 FTE Resource Conservation Technician
- 1 FTE Farm Bill Technician

III. COST-SHARE PROGRAM REQUIREMENTS

A. High Priority Erosion Problems

Whenever possible, State cost-share dollars will be used to maximize financial support for conservation programs. Often, state funding requires local match and the local funds can be stretched farther with state and federal programs. When this approach is applied to the state cost share program, it will provide applicants with cost-sharing up to 75% of the total project cost. These are practices that meet NRCS practice standards and specifications. These practices are very beneficial on Highly Erodible Land (HEL) and in areas with active gullies.

B. High Priority Water Quality Problems

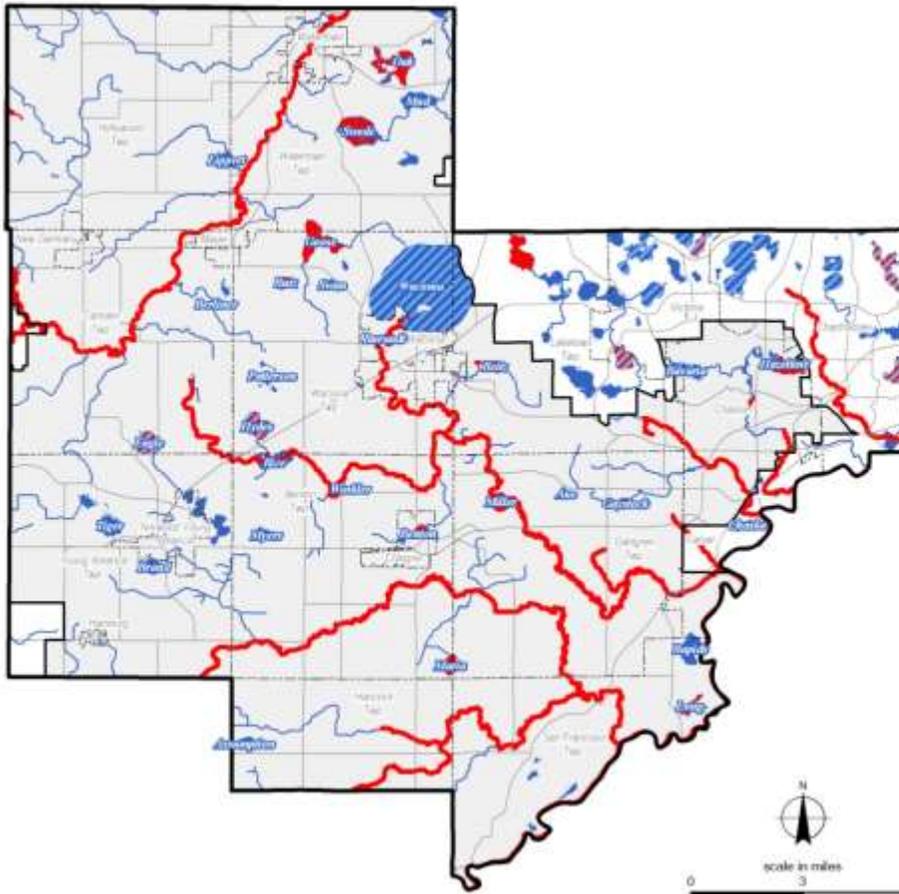
A map of Carver County and the impaired waters appears on the next page. The Carver SWCD works closely with the Carver County Water Management Organization to identify and target sub-watersheds with water quality concerns. The Bevens and Carver Fecal TMDL's identify sub-watersheds with the highest priority. Sub-watersheds will be selected in order to identify and prioritize the best places for installation of BMP's. A sub-watershed analysis has been started for the watershed that drains to Lake Waconia, and another for the headwaters of Bluff Creek.

C. Special Projects

Special projects that do not easily fit under one of the approved practices that are listed in the NRCS handbook or State Cost Share Manual, may be considered by the Board for technical and/or financial assistance. If State cost share dollars are to be used, the practice must meet the minimum criteria as identified in the BWSR State Cost Share Manual.

The SWCD will work with the WMO to identify and target projects and apply for grant funding through the Clean Water Fund grant. SWCD staff work closely with WMO staff to identify and prioritize projects as listed in the current Carver County Water Management Plan. SWCD staff are also working more closely with RPBCWD and LMRWD to identify potential best management practices and projects within those watersheds.

Carver County Impaired Waters



Legend

- Impaired Streams
- Impaired Lakes
 - Excess Nutrients & Mercury
 - Excess Nutrients
 - Mercury
- County Boundary
- CCWMO Boundary
- Municipal Boundaries
- Major Roads
- Lakes
- Streams & Ditches

Carver County Water Plan 2010-2019
Public Health & Environment Division
Planning & Water Management Dept.



This map was created using Carver County's Geographic Information Systems (GIS). It is a compilation of information and data from various City, County, State, and Federal offices. This map is not a surveyed or legally recorded map and is intended to be used as a reference. Carver County is not responsible for any inaccuracies contained herein.

IV. BUDGET REQUIREMENTS



	<u>2017</u> <u>Budget</u>
Income	
Charges for Services & Sales	\$15,000
Intergovernmental - County	\$471,251
Intergovernmental - State	\$180,000
Intergovernmental - Local	\$18,500
Misc. Revenue - Interest	\$1,000
Misc. Revenue - Other	\$4,145
Total Income	<u>\$689,896</u>
Expense	
District Op. Other Srvs & Chrgs	\$37,000
District Op. Supplies	\$1,500
District Op. Capital Outlay	\$15,000
District Op. Personnel Services	\$561,396
Project Expenses - District	\$10,000
Project Expenses - State	\$65,000
Total Expense	<u>\$689,896</u>
Net Income	<u><u>\$ -</u></u>