

Fillmore
Soil and Water
Conservation District
Annual Report



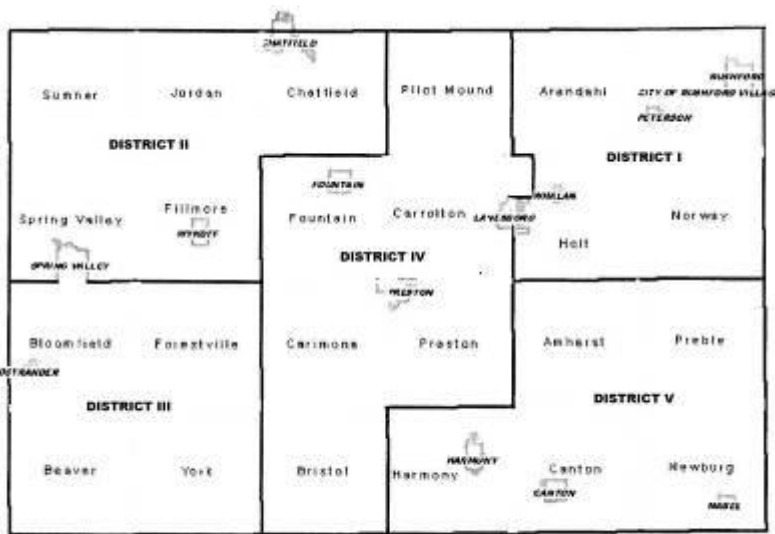
2016

Personnel Resources



Board of Supervisors

L to R: Leonard Leutink, Jr., Secretary; Travis Willford, Chair; Brian Hazel, Treasurer; Tim Gossman, Supervisor; Pam Mensink, Supervisor



Board Meetings are held the Thursday after the second Monday of each month at 4:30 p.m. at the SWCD office.

District I – Brian Hazel
 District II – Tim Gossman
 District III – Leonard Leutink
 District IV – Pamela Mensink
 District V – Travis Willford

District I – Arendahl, Rushford Village, Norway and Holt townships plus the City of Lanesboro
 District II – Sumner, Jordan, Spring Valley (excluding the City of Spring Valley), and Chatfield Townships

District III – Fillmore, Bloomfield, Forestville, Beaver and York townships

District IV – Pilot Mound, Fountain, Carrolton (excluding the City of Lanesboro), Carimona, Preston, and Bristol townships

District V – Amherst, Preble, Harmony, Canton and Newburg townships

Soil and Water Conservation District Staff

Donna Rasmussen	District Administrator
Rick Grooters	Resource Conservation Technician
Doug Keene	Resource Conservation Technician
Anne Koliha	Engineering Technician
Jeanette Serfling	Administrative Assistant
Dean Thomas	Area Soil Health Technician
Jennifer Ronnenberg	Water Management Coordinator
Caleb Fischer	Conservation Technician
John Boyum	Nutrient Management Specialist

Natural Resources Conservation Service Staff

Jessica Bronson	District Conservationist
Vacant	Soil Conservationist
Deborah Shea	Conservation Technician

COOPERATING AGENCIES

Basin Alliance for the Lower Mississippi in Minnesota (BALMM)
 Bluff Country Hiking Club
 Eagle Bluff Environmental Learning Center
 Fillmore County Cities -- Canton, Chatfield, Fountain, Harmony, Lanesboro, Mabel, Ostrander,
 Peterson, Preston, Rushford, Rushford Village, Spring Valley, Whalan
 Fillmore County Association of Townships
 Fillmore County -- Auditor/Treasurer, Board of Commissioners, Emergency Management, Feedlot
 Office, GIS, Highway Department, Public Health, Recorder, Sheriff/Sentence to Serve, Solid
 Waste, Zoning
 Hiawatha Valley Resource Conservation and Development (RC&D)
 Minnesota Association of Conservation District Employees (MACDE)
 Minnesota Association of Soil and Water Conservation Districts (MASWCD), SE Area 7
 Minnesota Board of Water and Soil Resources (BWSR)
 Minnesota Department of Agriculture (MDA)
 Minnesota Department of Health (MDH)
 Minnesota Department of Natural Resources (DNR) – Forestry, Fisheries, Ecological and Water
 Resources Divisions
 Minnesota Pollution Control Agency (MPCA)
 National Association of Conservation Districts (NACD)
 National Trout Center, Preston, MN
 Root River One Watershed, One Plan LGUs
 Southeast Minnesota Water Resources Board
 Southeast Minnesota Wastewater Initiative
 Southeast SWCD Technical Support Joint Powers Board (JPB)
 The Nature Conservancy (TNC)

University of Minnesota Extension (U of M)
Upper Iowa River Alliance
USDA Farm Service Agency (FSA)
USDA Natural Resources Conservation Service (NRCS)
Winona State University (WSU)

INTRODUCTION

The Fillmore Soil and Water Conservation District Board of Supervisors hereby submit the Annual Report for the calendar year of January 1, 2016 through December 31, 2016.

In 1940 the first soil and water conservation district was organized in Fillmore County. The District encompassed the eastern half of the county. Two years later, in 1942, the Western District was created. A line running north/south from the town of Preston separated the two Districts. In 1962 the East and West Districts were consolidated into one district by authority of the Minnesota Soil Conservation Committee. It was the opinion of both former boards of supervisors that consolidation would offer more efficient operation.

It has been through the work of many supervisors, district employees, partners and landowners that the rich but fragile resources of Fillmore County have been protected.

The ever constant goal of the Fillmore SWCD is to conserve our natural resources.

MISSION STATEMENT

The mission of the Fillmore Soil and Water Conservation District is to promote natural resource stewardship by providing educational, technical and financial assistance.

SERVICES AND PROGRAMS

Technical assistance to landowners for the implementation of conservation practices

Two Conservation Specialists

- Assist landowners with planning and design of practices, such as grassed waterways, terraces, grade stabilization structures, ponds, windbreaks, etc.

Engineering Technician/Conservation Planning Specialist

- Assists livestock producers with planning and design of feedlot runoff control practices, such as freshwater diversions, filter strips, picket fences, etc.
- Updates USDA HEL Conservation Plans to ensure that soil productivity is maintained, eligibility for the farm program is maintained, and landowners and operators are in compliance with the county and state soil erosion laws and assists with implementing conservation practice needs identified in the conservation plans.

Nutrient Management Specialist

- Assists livestock producers with developing nutrient management plans to meet standards for NRCS and state feedlot rules including annual updates of plans, manure spreader calibrations and other information needed to complete the plans.
- Assists producers with use and evaluation of nutrient management tools (basal stalk nitrate tests, soil N tests, split N applications, etc.).

Area Soil Health Technician

- Assists producers with practices that enhance soil health--managed grazing, cover crops, no-till--including help with financial assistance for implementation.

Conservation Technician

- Assists landowners with enrolling in the Conservation Reserve Program (CRP) and similar programs that establish permanent vegetation including conservation buffers.
- Assists landowners with complying with the rules of the Wetland Conservation Act related to filling, excavating or draining of wetlands.

Financial assistance to landowners for implementing conservation practices

- State Cost Share Program: provides up to 75% cost share not to exceed \$6,000 for grassed waterways, terraces, grade stabilization structures, including well sealing (50% up to \$1000 maximum) plus other practices on the state cost share docket.
- Low Cost Feedlot Fix Cost Share Grants: provides 50% cost share with the maximum determined by the particular grant program for non-engineered runoff control practices such as rain gutters, freshwater diversions, filter strips, fencing, etc.
- Ag Best Management Practices (BMP) Low Interest Loan Program: provides 3% loans for terms of up to 10 years for implementing water quality practices, such as ag waste systems, manure handling equipment, septic system upgrades, no till planters, well replacement, variable rate technology, and erosion control structures; loans are processed through local lenders.
- Clean Water Fund Community Partners Grant: provides funding to local groups to implement stormwater management practices.

Other products and services

- Trees and tree supplies: potted and bare root stock are available for sale from December to the end of February with proceeds going to support SWCD programs.

- 2016 Fillmore County Plat Books: available for sale for \$30.
- Tree planters: two planters are available to rent for \$25/half day (min.) or \$50/day.
- Gopher machine: one available for rent for \$25/half day (min.) or \$50/day.
- Bacteria testing: \$25/sample (\$10 for households with a child < 1 year or pregnant woman).
- Map sales: GIS maps created and printed; rates are dependent on the size and complexity of the map produced plus any printing costs.
- Survey flags: available for sale at \$.10/each or \$10.00/bundle of 100.
- Conservation Building conference room rent: \$25/half day, \$50.00/day.
- Decorah Shale site investigation: \$20/hr in office research, \$25/hr out of office research.
- Rain barrels: \$30 for kit; \$50 for assembled rain barrel; 24 sold in 2015
- Nutrient Management Plans: \$0.70/acre for a new EQIP plan, \$0.50/acre for a new non-EQIP plan; \$0.35/acre for plan updates.

Partnerships

- Fillmore County
 - The SWCD has delegation agreements with the county for the administration of the Wetland Conservation Act and coordination of the Local Water Management Plan. The Water Management Coordinator is coordinating the Root River One Watershed, One Plan pilot project. The Policy Committee is made up of representatives from 13 LGUs and includes SWCD Supervisor Leonard Leutink representing the Fillmore SWCD.
 - The Conservation Specialists provide assistance on soil erosion complaints made to the Zoning Office to determine the extent of the erosion and how to remediate it.
 - The SWCD staff provides assistance to the Zoning Office with wetland determinations in the Decorah Shale Overlay District and with landowner requests related to the county's sinkhole ordinance and industrial mining ordinance.
- USDA
 - SWCD technical staff provides assistance for planning, designing, and implementing practices funded through federal Farm Bill programs such as EQIP, CSP and CRP.
 - Two staff assist landowners with completing CRP Conservation Plans; one of them also assists landowners with USDA HEL Conservation Plans.
- MN Pollution Control Agency
 - Root River watershed
The SWCD has a contract with the MPCA to conduct water quality monitoring for the Watershed Pollutant Load Monitoring Network.
- MN Department of Agriculture
 - MDA Field to Stream Partnership Monitoring Grant: administration of subcontracts and payments administered by the SWCD, and 2 staff assist with edge-of-field and in-stream monitoring, data management and watershed assessments.
 - MDA Field to Stream Partnership Farm Walkover Grant: technical assistance to implement practices identified as a result of farm walkovers completed in 2015 (ended June 30, 2016).
 - MDA Field to Stream Partnership Phase II Implementation Grant (\$804,385) and Targeted Watershed Grant (\$493,233): Two competitive BWSR grants were awarded to implement BMPs in the FSP study watersheds while monitoring continues to evaluate the effectiveness of the BMPs for reducing sediment and nutrient runoff.
- SE Technical Support Joint Powers Board
 - Membership dues are paid annually for engineering support for conservation projects.

- The SWCD is a subcontractor with the JPB for a Clean Water Fund grant for a 0.5 FTE Nutrient Management Specialist position which serves five southeastern counties and another 0.5 FTE for that staff person to coordinate N-BMP outreach in 3 counties funded by MDA.
- The SWCD is a subcontractor with the JPB for the Area Soil Health Technician who works in the 11-county SE Area 7 promoting soil health practices and assisting producers with implementing those practices.
- The SWCD and Soil Health Technician are partners with the JPB for the LCCMR SE MN Cover Crop and Soil Health Initiative to oversee cover crop demonstration plots in Area 7.
- SE MN Water Resources Board and Water Resources Advisory Committee
 - The SWCD Water Management Coordinator is the staff liaison to these organizations.
 - The SWCD is a sub-recipient of 319 grant funds for feedlot fixes and technical assistance.
 - The SWCD is a sub-recipient of grant funds for the Volunteer Nitrate Monitoring Network.
- Basin Alliance for the Lower Mississippi in Minnesota
 - The SWCD is an active participant in BALMM, a locally led ad hoc organization dedicated to protecting water quality in the Basin; the Administrator serves as Chair.
- MASWCD State and Area organizations
 - Membership is maintained; Board members and staff attend Area meetings and the statewide annual meeting.
- Hiawatha Valley Resource Conservation and Development (RC&D)
 - Two Board members are assigned as representatives to the RC&D Council; however, 2016 dues were not paid.
- Upper Iowa watershed
 - SWCD staff persons assist Iowa DNR with water quality sampling at three sites from April to October.
 - Two MPCA IWM sites were monitored in 2016 by SWCD staff under a subcontract with the Root River SWCD as part of a MPCA Surface Water Assessment Grant (SWAG).
- MN DNR
 - Observation Well Network: staff monitor water levels every month in one well in the network
 - Dye trace studies: staff assists with placing and collecting charcoal bugs in the springs and with collecting water samples that are analyzed for nitrate concentration and assist with landowner contacts for dye trace studies.
- The Nature Conservancy
 - Grant funds were provided to the SWCD to purchase prairie cordgrass plugs for stabilization of a Decorah Shale outcrop along County Road 5 in Jordan Township, which used about half the funds.
 - The remaining half of the funds helped purchase plants for the Fillmore County Office Building storm water basin rehabilitation completed in 2016.



The SWCD is the recipient or sub-recipient of \$3,107,025 in 16 Clean Water Fund grants active in 2016 with grant periods of 2-4 years ranging from 2014 to 2020. Of those funds, \$1,115,492, are used for Fillmore SWCD staffing and administration.

DISTRICT PROGRAMS, ACTIVITIES AND ACCOMPLISHMENTS

State Cost Share Program

In 2016, a total of \$14,625 in state cost share funds (FY15 & FY16) were paid out to install:

- 5,560 feet of grassed waterways
- 2,050 feet of terraces with 522' of tile

The FY14/15 grant allocation was \$24,289/year and remains the same for FY16/17.



Waterway that has been mulched and crimped.

2016 Outstanding Conservationists

Andrea and Jeff Eickhoff and Ruth and Norman Eickhoff were honored at a luncheon at the Minnesota Association of Soil and Water Conservation District's (MASWCD) Annual Convention which was held in December in Bloomington where Outstanding Conservationists from across Minnesota were recognized and competed for the title of Minnesota's Outstanding Conservationist.



Jeff and Norman Eickhoff own approximately 750 acres of land of which just under 600 acres is cropland that is all minimum-till using a disk chisel on corn stalks in the fall and a soil finisher in the spring on all fields. On the bean ground, liquid manure from their wean-to-finish hog barn is incorporated after harvest in the fall. Nutrients from the manure are maximized using a nutrient management plan which is updated annually with the SWCD.

Installed to treat runoff from the open lot by their barn was a filter strip and picket fence to control runoff from the feedlot and divert it away from a sinkhole. This was the first of its kind installed in Fillmore County with cost share and has been visited by ag and conservation groups as an educational site.

The Eickhoffs have installed many terraces and waterways, both with cost share and on their own. If a waterway needs repair, they shape it and plant their crop perpendicular to it. After the crop is up and sprayed, they seed the waterway and clip it a couple of times which destroys the crop but helps to prevent washing and gives the grasses a chance to get established.

Jeff is very active with community organizations. He is the current president of the Fillmore County Farm Bureau, is a member of the Parent Teacher League at St. John's School in Wykoff, and also serves

on the Spring Valley Area Community Foundation. He has been a 4-H leader and on the Beef Producers Board.

MASWCD, with support from *The Farmer* magazine, sponsors the Outstanding Conservationist Award Program. The SWCD hosts a local recognition event in January to honor the recipients.

2016 Tree Program

The District sells a variety of bare root trees and shrubs and bare root and potted conifers. 2016 sales included 9,945 bare root stock and 825 potted stock sold to over 200 individuals, municipalities, and organizations in and around Fillmore County.



Trees sorted for customer pickup

SWCD Windbreak Program

For many years, windbreaks were eligible for state cost share funding, but in 2013 windbreaks were removed from the list of eligible practices except in wind erosion counties. Fillmore County does not meet the state's requirements to be a wind erosion county. However, the SWCD Board has long recognized the importance of trees on the land, especially on the steep and rolling hills found in most of the county, so this tradition will continue. The SWCD continues to offer cost share for windbreaks utilizing its local funds. Up to 50 percent of the cost of the trees for a farmstead windbreak designed by the SWCD staff will be paid to the landowner. Tree cost is based on current potted stock prices offered by the SWCD. One windbreak was installed in 2016 utilizing the SWCD cost share funds.

SWCD Summer Construction Set Aside Program

The SWCD Board established this program in 2011 to pay \$163/acre on up to 10 acres following the critical area seeding practice in the EQIP docket for use with the summer construction of waterways and other practices as recommended by the SWCD Conservation Technicians. There was one project for 8.4 acres that used the summer construction set aside funds in 2016.

Wetland Conservation Act (WCA)

A total of 26 landowner contacts were made in 2016. There was one No-Loss application that was approved with no wetland impacts. A potential violation site was found to be in compliance. US Fish and Wildlife also took interest in this site as it would have affected one of their Conservation Easements. USFWS concurred there was no violation taking place. Also, we had 26 MPARS water permits submitted by MN DNR, along with consultations on waterway cleanouts, proposed tiling reviews and site visits. There were also local road authority projects submitted by the county for our review. Held one TEP meeting with our Senior Wetland Specialist in June where we visited two different sites that day. Fillmore's LGU member attended four meetings concerning a WCA shared services position between three counties.

Feedlot Water Quality Management

No projects funded in 2016.

Nutrient Management

The Nutrient Management Specialist works in five counties and 0.5 FTE is funded by a FY2015 Clean Water Fund grant awarded to the SE SWCD Technical Support Joint Powers Board. Fees charged for the nutrient management plans help to meet match requirements for the Clean Water Fund grant. Funding for other half of the position comes from MDA through a Joint Powers Agreement between the SE SWCD JPB and MDA for N BMP outreach to set up on-farm N comparison plots.

In 2016, the Nutrient Management Specialist completed 32 nutrient management plans (9 new, 23 updates), which included 3 EQIP plans. Manure management plans (MMP) were prepared for 26 producers, some being converted from nutrient management plans. 14 MMP plans were completed for 2016 and 2 completed for 2017 totaling 7708 acres and fees were collected. Work continues with additional producers on plans needed for 2017. He assisted producers with three MPCA annual reports, a NPDES permit and one spreader calibration. The Nutrient Management Specialist attended several workshops, field days and trainings including:

- U of M Nutrient Management Conference
- U of M Nitrogen Conference in February
- CNMP training in November
- Iowa State Integrated Crop Management Conference in December

The Nutrient Management Specialist completed the second year of data collection for the N BMP Outreach project with MDA, which provides a grant that funds half the position. Producer meetings were held in St. Charles to go over plot data February 22nd. A total of 19 plots were installed with producers. Associated work with the plots includes: making maps with plot outlines; GPSing and flagging plots; collecting planting data; collecting soils samples for pre-plant nitrate testing, pre-side dress nitrate testing, and deep soil nitrate testing; conducting SPAD measurements; selecting basal stalk nitrate sampling points from aerial imagery and collecting samples; collecting whole plant and grain samples at high end plots; and recording yield data. Staff participated in project meetings, conference calls and trainings. Invoices from the U of M for the advanced scientific plots were processed for their staff time, mileage, lab expenses and supplies. A grant amendment was completed with a revised budget and work plan for the next funding phase. Quarterly reports and expenditures were submitted to the SE Technical Support Joint Powers Board.

Soil Health

The Area Soil Health Technician, a position funded with a Clean Water Fund grant awarded to the SE MN Technical Support Joint Powers Board, works in the 11 southeast Minnesota counties in Area 7. He assists producers with soil health practices, such as cover crops and managed grazing. Most of those practices are funded by EQIP. Cash contributions were received from 12 organizations, canning

companies, and SWCDs to support the Soil Health Technician position. 2016 activities included:

- Total of 13,580 acres enrolled in EQIP cover crops in 2016 (some 2- or 3-year contracts); additional 3240 acres seeded without payment.



Cover crops improve soil health.

- Participated in four teleconferences with GLCA and the grazing specialists.
- Attended Winter Crop Days, GLCA/Grazing Specialists meeting, Forage for U workshop, 2016 Crop Management meeting, and State Soil Health meeting.
- Coordinated sign up of 16 cooperators for the LCCMR SE MN Cover Crop and Soil Health Initiative who enrolled 1049 acres in demonstration plots for a two-year study. Completed maps, seeding plans and contracts. Helped organize two winter workshops in St. Charles and Owatonna. Assisted BWSR staff with purchase of rain simulator. Conducted rain simulator demonstrations at the Mower County Fair, Tim Walz field day, Freeborn County field day, LCCMR field day and the MASWCD Area 7 fall meeting. Participated in a teleconference (May) and meeting (June) for project planning. Met with the cooperators and U of M staff who are conducting an economic analysis of cover crop use. Prepared soil sampling maps for the plots.
- Provided technical assistance for grazing management plans for four producers in Winona County and two in Fillmore County. Attended the Grazing School in Grand Rapids. Provided a tour for U of M veterinary students of pasture grazing systems and a feedlot. Assisted NRCS with grazing checks and GPSing a fence.
- Assisted NRCS with cover crop and grazing standards and attended two CSP committee meetings in the state office in September.
- Attended NRCS Local Work Group meetings in two counties.
- Attended one NRCS MRBI meeting.
- Updated Ecological Sciences TAA with NRCS.
- Helped coordinate Fillmore SWCD cover crop program; nine contracts covering 711 acres.
- Attended four meetings of the Fillmore/Mower Soil Health Team and was interviewed by AgriNews about the soil health team. A tour was held in August with the team. Traveled to Carlton County with NRCS to present information there about soil health teams.
- Presented soil health information at Cow/Calf Days in Rochester and LeSueur, Midwest Forage Association in Rochester, spring and fall MASWCD Area 7 meetings, SE MN Envirothon, and MN Beginning Grazing School. Conducted rain simulator demonstrations at the Mower County Fair, Tim Walz field day, Freeborn County field day, LCCMR field day and the MASWCD Area 7 fall meeting. Also interviewed on KAAL Channel 6 news during the Mower County Fair.
- Assisted NRCS with trainings for NRCS and SWCD staff: seed training Feb. 23-24, seed ID in July in Albert Lea and Rochester, and fence and pipeline training in July in the same two locations.
- Completed cover crop certifications and checks for EQIP
- Completed cover crop seeding plans for 6352 acres in four counties
- State soil health teleconference in November
- Worked on one grazing plan and pipeline design
- Checked all cover crop fields for the LCCMR grant
- Worked on soil sampling protocol for LCCMR plots
- Completed all information for producer payments and reporting for LCCMR grant
- Soil health presentation at Riverland Technical College with rain simulator
- Winterized the rain simulator
- Completed vouchers for Fillmore SWCD cover crop program
- Attended U of M Cattle Feeder Days in Rochester in December
- Assisted with organizing U of M Cow/Calf Days in Rochester in January
- Appointed to BWSR Area 6 Technical Training Team

Root River One Watershed, One Plan Pilot Project

The Root River watershed was selected on June 25, 2014, as one of five projects around the state for BWSR's One Watershed, One Plan Pilot Program. The planning area for the Root River also includes

the portions of those watersheds in Minnesota along the state's border with Iowa and the Mississippi River--the Upper Iowa and the Mississippi River-Reno—for a total of over 1.3 million acres. The full draft of the plan was completed by the consultant in April. Following a thorough review by the Planning Work Group made up of local staff, the Advisory Committee, composed of representatives from state agencies, ag and commodity groups, and conservation and environmental groups, reviewed the draft plan. The 13-member Policy Committee of elected officials representing all the six counties, six SWCDs and one watershed district in the planning area then completed their review of the watershed plan in June. The plan went out for 60-day review by the state agencies and the public in June. In September, two public hearings were held in Stewartville and Caledonia to collect public comments. All comments were addressed and changes were made to the plan where needed. The plan was then submitted to BWSR for 90-day review. In November, the plan was presented to the BWSR Southern Region Committee, which recommended approval to the BWSR Board. After a presentation to the full BWSR Board on December 14th, the plan was approved by them. The Policy Committee gave final approval of the plan on December 19th. They also approved the Joint Powers Agreement for governance during implementation of the plan.

MPCA Watershed Pollutant Load Monitoring Network

A contract with MPCA provides funding for staff to monitor five sites on the main stem and the major tributaries of the Root River to obtain spatial and long-term pollutant loading information. The contract deliverables include collecting 25 grab samples at each site during runoff and base flow conditions for a total of about 125 samples per year. Staff also calculate annual loads using the FLUX32 model.

MDA “Field to Stream Partnership”

The MDA Field to Stream Partnership project began in 2010. Three edge-of-field monitoring sites are established in Fillmore County, and a fourth is in Mower County. The sites in Fillmore County are located in Crystal Creek watershed southwest of Preston and in Bridge Creek watershed near Bratsberg. The monitoring stations have automated samplers which collect runoff from fields where detailed information is collected about management of the fields draining to the station. Samples are analyzed for total suspended solids (TSS), turbidity, total phosphorus (TP), phosphate (PO₄), pesticides, and nitrate-nitrogen. An in-stream monitoring station is located downstream from each of the edge-of-field sites. Grab samples are also collected at the in-stream sites.

2016 marked the seventh year for collecting baseline data. A grant agreement with MDA provided funding to hire a contractor to conduct farm walkovers with the farmers in the watershed to identify conservation needs in 2015 and 2016. In Bridge Creek, the walkovers covered 70% of the crop acres. In Crystal Creek and the Headwaters, the walkovers covered 100% of the crop acres. As BMPs are implemented, changes in water quality will be monitored.

Special EQIP funding is available through the Mississippi River Basin Initiative (MRBI) from USDA-NRCS. The Lower South Fork of the Root (which includes Bridge Creek) and Willow Creek (which includes Crystal Creek) are among five sub-watersheds in Minnesota that were awarded funding for FY15 to FY18. The headwaters watershed in Mower County was also approved for MRBI funding in late 2015. A Clean Water Fund grant application was submitted to BWSR to leverage the federal MRBI-EQIP funds. The application for \$804,395 was approved for funding in December 2015. A Targeted Watershed Grant application for \$493,233 was approved by BWSR in March 2016 for additional BMP

implementation particularly in the Headwaters where the walkovers were completed in the spring of 2016.

Several practices were installed in 2016: Fillmore and Root River SWCD technicians completed 11 grassed waterway projects totaling 21,712 feet and one project with 2 water and sediment control basins. They worked with four cooperators on seeding cover crops on 113 acres. Root River SWCD technicians completed plans for five grade stabilization structures for construction in 2017 in cooperation with the NRCS DC. They also completed one ag waste facility cover. They assisted the TSA Engineer with completing plans for a large ag waste facility and roof structure for an EQIP application in cooperation with the NRCS DC. An agreement was signed with Anez Consulting for the nutrient management portion of the Comprehensive Nutrient Management Plan completed by the TSA Engineer in December to meet this requirement for the project's EQIP application. Technicians are communicating with 15-20 additional cooperators regarding potential projects. In the Headwaters, the Mower SWCD technician completed one project for two water and sediment basins. Planning was completed with five cooperators for six waterway projects for construction in 2017, three of which are in two applications for EQIP funding. There was also staff time for meetings, survey, and investigation on a possible two stage ditch project.

Crystal Creek watershed has many sinkholes and springs, so dye trace studies have been conducted there to better understand the interaction between surface water and ground water. Nitrate samples are collected and analyzed from the springs. Lysimeters have also been installed to evaluate nitrate movement below the root zone. Willow Creek, the HUC 12 watershed in which Crystal Creek is located, is impaired due to elevated nitrates (avg. = 8 ppm). Dye trace studies are also being conducted in Bridge Creek. The geologic setting there is much different from Crystal so nitrate levels in Bridge are much lower (avg = 3 ppm) than Crystal. However, sediment losses in Bridge are over twice that in Crystal due to the steeper terrain. Crystal Creek also has the benefit of several structures installed in the 1950s as part of the East Willow Flood Control Project plus other well-maintained conservation measures. One of those flood control structures, E-3, is slated for sediment removal in 2017 to restore its water holding capacity and to reduce sedimentation downstream.

A current agreement with MDA to continue funding for the monitoring project will end June 30, 2017. The funds continue to be used to administer the subcontract with Mower SWCD and 0.75 FTE in the Fillmore SWCD to collect samples, maintain equipment and manage the data. It is anticipated that funding will continue with a new agreement starting July 1, 2017.

Clean Water Fund Soil Erosion Grant

Updating conservation plans is continuing with funding from a FY14 Clean Water Fund Grant for \$145,000. This funds approximately 0.5 FTE to update USDA HEL plans and to assist landowners with implementing practices in their plans. Assistance was provided to two landowners with updating three HEL conservation plans for 339.2 acres in 2016 bringing the total number of plans completed to 131 for 12,980 acres resulting in 86 tons of soil saved and a reduction of 7307 pounds of phosphorus. There were 19 landowners who were assisted with getting soils maps and copies of conservation plans for MDA corporate farm reporting. Most work load was with assisting with CRP conservation planning: wrote 141 plans for 2,731.48 acres of which 121 plans for 2,307.11 acres were for HEL land being placed into CRP. Assistance was provided to landowners with questions and review of HEL and CRP plans. Numerous seed tags were reviewed for CRP plans installed. Assistance was provided to 14 landowners with crop rotation and conservation practice questions and assisted with surveys and

construction of conservation practices in the field. Staff attended RUSLE2 and Toolkit Training. Additional hours were spent in the field working with another Technician to survey and construct conservation practices for seven landowners.

Fillmore County Office Building Rain Garden

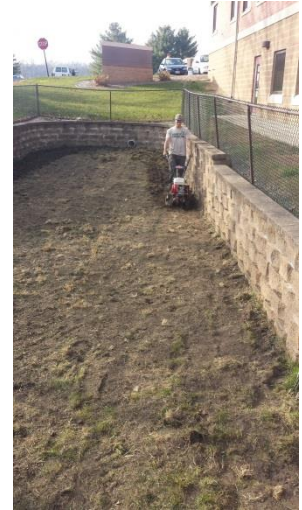
A partnership opportunity between the Fillmore SWCD, Fillmore County, the Conservation Corps of MN, and the Fillmore County Sentence to Serve crew gave some local storm water structures a much needed facelift. Two existing water retention basins at the Fillmore County Office Building in Preston were renovated in November 2016 into rain gardens to provide more function and beauty to the neighborhood and less maintenance for County staff.



The original structures collected storm water from the building and back parking lot for temporary storage and slower release, but ended up having more problems than expected. The basins themselves were seen as a public hazard, one of them with a vertical drop of several feet. The water from the basins flowed through too quickly and out of discharge pipes on the other side of the road, creating large volumes of erosive water for the downstream neighborhood. The bottom of the basins grew

standard turf grass, which could not filter or infiltrate water quickly enough and required regular mowing; a task difficult in the vertical basin. The renovations involved transforming them from simple retention basins into infiltrating and filtering rain gardens.

Enter the Conservation Corps, a five-person crew based out of Rochester called the “Aspens”. The Conservation Corps provides hands-on environmental stewardship and service-learning opportunities to youth and young adults from diverse backgrounds while accomplishing conservation, natural resource management and emergency response work. The work was all done by hand due to the location and confinement of the existing structures. The Aspen Crew, assisted by staff of the County, Sentence to Serve, and the Fillmore SWCD began by removing the grass, followed with a tiller that loosened and aerated the soil underneath. After that came several layers of a mulch-sand-dirt mixture that provides a good planting bed and filters particulates out of the water as it flows through. A mulch-only layer topped what is now a highly functioning retention basin, and low-maintenance shrub plantings complete the project.



Crew member tilling the new garden surface

“The Conservation Corps crew members worked hard, were enthusiastic about the project, and maintained their professionalism throughout,” said Jennifer Ronnenberg, Water Management Coordinator at the Fillmore SWCD. “Everything looks great, and we have already received many comments of praise from the community. I couldn’t have asked for a better crew.”



The Aspen Crew with Fillmore SWCD staff in one of the completed gardens.

The Conservation Corps crew felt the love, too. “It was really gratifying to transform an ugly, broken system into something beautiful that helps the environment, helps

the river and helps the town,” said crew leader Billy Ritzenthaler. “And it’s really cool to give kids an opportunity to do something they can be proud of.”

DNR Healthy Forests for Healthy Water Grant

Clean Water Fund Grants from the DNR (\$78,000) and BWSR (\$50,000) are providing funding for two forestry consultants to work with landowners in each of two Root River subwatersheds identified as having habitat of significant importance on lands adjacent to public lands with high quality native vegetation. In Riceford Creek watershed, which extends into Houston County, 47 landowners received reminder letters in November offering the services of the forestry consultant to help them set goals for their forest land and implement practices to meet those goals. The funding incentives in the grant can pay for a Forest Stewardship Plan and the practices for implementation of the plan. A second forestry consultant is working in Rush-Pine Creek watershed, which extends into Winona and Houston counties, where 76 landowners also received reminder letters in November offering the same services. In 2016, four cost share contracts were approved by the SWCD Board from the DNR grant. Six projects were completed and paid for invasive species management (1), pond cleanout (3) and forest stand improvement (2) practices. From the BWSR cost share funds, three contracts were approved in 2016 by the SWCD Board for practices and one contract for a forest stewardship plan for 201 acres. Four projects were completed and paid for invasive species management (2) and forest stand improvement (2). As of the end of 2016, \$39,097.25 is spent or encumbered from the DNR grant in 14 contracts. The grant expires May 31, 2017. Spent and encumbered funds to the end of 2016 from the BWSR grant total \$9,106.00 in 6 contracts. The DNR grant expires December 31, 2018.

Farm Bill Assistance

The Fillmore SWCD has staff (~0.5 FTE) funded by a Farm Bill Assistance Grant from BWSR to promote the federal Conservation Reserve Program (CRP) and to assist landowners enrolled in CRP with completing their plans. Staff completed 138 contracts for 2,816 acres plus 94 HEL plans for 1,917 acres. Staff time includes management of the plan files both preparing for the enrollment and follow up after enrollment.

Ag BMP Loan Program

The SWCD administers the Ag BMP Loan Program which is funded by the MDA. Loans are available to farmers, rural landowners and farm supply businesses for loans to restore or protect water quality, whether on a farm, a rural home site, or in an unsewered community. Eligible practices include: feedlot improvements, manure storage basins and spreading equipment; no till equipment; terraces, waterways, sediment basins or other soil conservation practices; septic system upgrades; Variable Rate Technology (VRT); well relocation and sealing; secondary fuel containment; or other projects that improve water quality. In 2016, the SWCD approved 1 loan for manure management equipment (\$95,000) and 3 loans for septic system upgrades (\$29,650).

Buffer Grant

Stream buffers are an effective practice for protecting water quality, especially when combined with other upland practices. The 2015 buffer law requires perennial vegetation buffers of an average width of 50 feet (minimum of 30 feet) along DNR public waters to help filter phosphorus, nitrogen, and sediment.

The law appropriated Clean Water Fund (CWF) funds to the Board of Water and Soil Resources (BWSR) for grants to local units of government to enhance compliance with riparian buffer or alternative practice requirements. The funds are being used by Fillmore SWCD to provide technical assistance to landowners to identify where buffers may be needed along public waters in Fillmore County. Financial assistance information is also provided to landowners for those who wish to enroll eligible acres into the Conservation Reserve Program (CRP) or other programs. Advice regarding appropriate seeding mixes, maintenance and other technical assistance will be provided as needed.

Two staff participated in two training webinars: Jan. 20th Buffer Mapping Initiative and August HEI Alternative Practices. Staff attended three buffer meetings: May 19 meeting for local SWCD and County staff, July 28 landowner meeting in Fountain, and August 1 Regional Buffer Workshop in Rochester. Staff assisted with planning and conducting the July 28 landowner meeting which was attended by 83 landowners. A general information letter was mailed in July to 1551 landowners with parcels adjacent to public waters. Aerial photo reviews have been completed on over 2800 parcels. There have been numerous landowner contacts. All data are being entered into BuffCAT. Fillmore County parcels are currently 85% compliant.

Ag Water Quality Certification Program



The Minnesota Agricultural Water Quality Certification Program (MAWQCP) is a voluntary opportunity for farmers and agricultural landowners to take the lead in implementing conservation practices that protect our water. Those who implement and maintain approved farm management practices will be certified and in turn obtain regulatory certainty for a period of ten years.

Through this program, certified producers receive:

- Regulatory certainty: certified producers are deemed to be in compliance with any new water quality rules or laws during the period of certification
- Recognition: certified producers may use their status to promote their business as protective of water quality
- Priority for technical assistance: producers seeking certification can obtain specially designated technical and financial assistance to implement practices that promote water quality

Through this program, the public receives:

- Assurance that certified producers are using conservation practices to protect Minnesota's lakes, rivers and streams

The Minnesota Department of Agriculture (MDA) transferred to the Board of Water and Soil Resources (BWSR) Clean Water Fund (CWF) funds appropriated to the agency to implement the Minnesota Agricultural Water Quality Certification Program statewide. Fillmore SWCD staff assisted with promoting the program. Two staff attended three open houses at local implement dealers in February with materials available for attendees. An estimated 800 people attended these events. The program was promoted on the SWCD website, Facebook page and in the newspaper insert published in February that went to over 10,000 households. Staff made follow up phone calls to people who had attended events and had expressed interest in the program to encourage them to sign up. Radio ads ran the entire month of May on two local stations. Quarter page ads were run for two weeks in the two local free papers (~25,000 distribution) plus all five community newspapers. Four AWQCP applications were completed from Fillmore County by May 31, 2016 which is when the grant expired. Additional

applications have been received. Six applicants have received certification. SWCD staff assisted with gathering information for some applicants.

Bacteria Testing

In May 2009, the SWCD became a certified lab to test drinking water for total coliform and *E. coli* and to test surface water for *E. coli*. The equipment was purchased with flood relief grant funds from Fillmore County Public Health to assist well owners who have had their wells flooded. Three staff are trained to analyze samples. An internal audit and external audit were completed for the lab in 2016. Nitrate samples are also analyzed at no charge to the client using MDA nitrate testing equipment. These are not certified lab results. There were 119 private well samples and 36 special project samples analyzed for bacteria in 2016. The 36 special project samples were analyzed for the Upper Iowa River, Mississippi Reno and Mississippi LaCrescent watersheds' ten-year Intensive Watershed Monitoring in preparation for completing a Watershed Restoration and Protection Strategy (WRAPS) for those watersheds. The Fillmore SWCD had a subcontract with Root River SWCD in Houston County, which was awarded a Surface Water Assessment Grant to fund the monitoring activities.

Education and Promotion Projects

Scholarships:

The Fillmore Soil and Water Conservation District sponsors a \$500.00 scholarship for a graduating Fillmore County high school student pursuing a degree in Natural Resources, Agriculture or related field. Lexie Dols from Fillmore Central High School is the 2016 High School Scholarship recipient.

The District also offers a \$500.00 scholarship for Fillmore County college students who will be returning to school in the fall. To be eligible, students must be a returning college sophomore, junior or senior, pursuing a degree in Natural Resources, Agriculture, or a related field, enrolled in classes for fall, and not a prior scholarship recipient. Ryan Mayer of Harmony is the 2016 Returning College Student Scholarship Award recipient.

Eagle Bluff Environmental Learning Center:

The SWCD participated in the Land Ethic at Work conference on April 2nd and the New Farmer U event on October 22nd sponsored by MOSES. Information was made available to participants about SWCD financial and technical assistance programs.

Forestry Field Day:

Summer interns hired in 2010-2015 have helped organize landowner field days in July utilizing lists of landowners in three counties from the MN Forest Resources Council. About 50-60 people attended the field day in 2016 held July 27th at the Forestville State Park. The theme was "What are your trees worth?" Three leaders each took a small group to cover topics related to timber appraisals and the tools used to estimate the number of board feet, etc. A light supper was served prior to the tour, and door prizes and ice cream awaited participants after the tour.

6th Grade Field Day:

Preparations were made for the 2016 field day at Forestville State Park. However, due to inclement weather, it had to be cancelled.

Decorah Shale Protection Project:

The SWCD was contacted by a landowner whose property has a Decorah Shale outcrop along County Road 5 southwest of Chatfield. The sidehill had been slumping into the road ditch ever since the road was widened in the 1970s. Each time the County Highway Department would clean out the ditch, the area would slump again requiring the landowner to repair the fence several times. In an effort to break this cycle, the SWCD and landowner came up with a plan with the Highway Department and The Nature Conservancy to document the use of deep-rooted prairie cordgrass to stabilize the hillside. Prairie cordgrass does extremely well on wet sites that can be seasonally dry just as Decorah Shale seeps can be. The landowners fenced the cattle out of the area and paid for half the cost of prairie cordgrass plugs (~\$800) that were planted in the spring of 2015. They are also taking pictures of the site on a monthly basis to document any changes. The Highway Dept. is refraining from cleaning out the ditch until after the grasses get established (unless a safety issue arises). The Nature Conservancy is providing the other half of the funding for the grass plugs. The area was also seeded with other native grasses using seed collected locally by the landowners and the SWCD Board member. The SWCD has measured elevations in 2014, 2015 and 2016 and will do so periodically for further documentation of any movement of the hillside after the planting is completed. The 2016 measurements were done in July and showed little movement of the hillside. However, there were heavy rain storms in September that saturated the area, so the 2017 measurements will show if the plantings have helped to stabilize the hillside.

Area and State Envirothon:

A staff member from the SWCD assisted with planning and staffing the 2016 Area Envirothon, which was held in May.

Fillmore County Fair Display: The SWCD booth at the 2016 Fillmore County Fair in July featured a landscape model from Winona State University that provides a three-dimensional view of the landscape and geology characteristic of karst. Various land uses are shown on the model, both good and bad. The SWCD purchases one half hour of air time on the local radio station during the fair for interviews with staff and Board members about current SWCD programs.

Nitrate Clinics:

Four nitrate clinics were held in 2016: National Trout Center on February 20th, Fillmore County Public Health on March 22nd, Harmony on March 26th and at the Lanesboro EMS open house on April 21st. Samples are analyzed using MDA equipment.

“Conservation Chronicles” Newsletter: On February 8, 2016, the Conservation Chronicles was published as an insert in the *Bluff Country Reader*, a free newspaper that goes to over 10,000 residences in the county. The Reader sold advertising to offset the cost of the insert. Many positive comments were received about this publication. Due to increasing printing and postage costs, the summer and winter newsletters are now posted on the SWCD website. An email notice of the posting is sent to those landowners providing their e-mail addresses (~100). Information about programs, upcoming events, tree sales, and other topics are submitted by the staff from SWCD and NRCS as well as other agencies when needed.

Community and School Presentations and Education: One staff person assisted with Extension’s Farm Safety Day Camp in May.

Conservation Corps Minnesota Apprenticeship Program:

A Conservation Corps apprentice was placed with the SWCD in 2016. She helped with water quality monitoring activities, the forestry field day, data management and other tasks.

Observation Well Network

The SWCD measures water levels in a well near Chatfield as part of the DNR's Observation Well Network. The water level is measured once a month from June to December plus two more times during the three-month period of March to May. No readings are taken in January or February.

Precipitation Monitoring Program

The District has 11 precipitation monitoring volunteers, two who have been monitoring rainfall for 38 years, one for 25 years, and four for more than ten years. Participants forward their rainfall information to the SWCD office which is recorded and sent on to the State Climatology Office in St. Paul. Volunteers who are celebrating anniversaries of five-year increments are recognized at the Annual Recognition Dinner in January.

BWSR Local Capacity Grant

In 2015, the state legislature appropriated \$22 million of Clean Water Funds for the FY2016-2017 biennium for Local Capacity Grants to all the SWCDs in Minnesota. An initial allocation of \$100,000 was supplemented by a second allocation based on the county's support of the SWCD, which for the Fillmore SWCD amounted to \$30,337. The SWCD Board divided those funds between cover crop cost share, technology and vehicle updates, staff time for pre-implementation activities for the watershed plan and storm water projects, and education and outreach. The cover crop program resulted in 8 contracts signed for 611.57 acres seeded. A vehicle was purchased to replace the 2005 Dodge. That vehicle was sold to the SE MN Technical Support JPB for use by the Soil Health Technician housed in the Fillmore SWCD office. A second vehicle was purchased to replace the 2005 Chevy Colorado. Staff attended an Area technology meeting in February and then compiled a list of technology needs which are being used to determine which equipment best suits our needs.

District Website (www.fillmoreswcd.org) and Facebook Page

The district's first website was created in July, 1999. A new site was created in 2007, then revamped in 2010. It receives regular updates with information regarding our services and programs, tree ordering, and current events as well as information about our supervisors and staff. Board meeting agendas and minutes are added monthly. All reports required to be posted by BWSR are on the website.

A Facebook page was set up for the SWCD in 2015. The Administrative Assistant maintains the page and posts new information. Staff are assigned to provide new items each week for the page.